P
Med
M

THE MEDICAL RECORD.

A Weekly Journal of Medicine and Surgery.

EDITED BY

GEORGE F. SHRADY, A.M., M.D.

Volume 15.

JANUARY 4, 1879.—JUNE 28, 1879.

1/3/06
68721

NEW YORK:
WILLIAM WOOD & COMPANY,
27 GREAT JONES STREET.

R
11
M433
v.15-16

TROW'S
PRINTING AND BOOKBINDING COMPANY,
205–213 *East 12th St.*,
NEW YORK.

LIST OF CONTRIBUTORS TO VOL. XV.

Abbott, Dr. George E., New York.
Adams, Dr. J. G., New York.
Allpost, Dr. Frank, Sycamore, Ill.
Anthony, Dr. W. E., Providence, R. I.

Baldwin, Dr. J. F., Columbus, O.
Barker, Dr. Fordyce, New York.
Barrett, Dr. A. R., Richmond, Va.
Barry, Dr. R. A., New York.
Bayles, Dr. George, New York.
Beach, Dr. A. P., Seville, O.
Beard, Dr. George M., New York.
Bigelow, Dr. Henry J., Boston, Mass.
Bigelow, Dr. Horatio R., Washington, D. C.
Billings, Dr. John S., Washington, D. C.
Blackwood, Dr. Wm. R. D., Philadelphia, Pa.
Bosworth, Dr. F. H., New York.
Bozeman, Dr. Nathan, New York.
Bradnack, Dr. F., New York.
Bramblett, Dr. W. H., Newbern, Va.
Bridge, Dr. Norman, Chicago, Ill.
Bristol, Dr. B. J., Webster Groves, Mo.
Brown, Dr. J. W., Mottville, N. Y.
Brown, Dr. Thomas, Baltimore, Md.
Burke, Dr. Martin, New York.
Burr, Dr. Dan. S., Binghamton, N. Y.
Burr, Dr. George, Binghamton, N. Y.

Cabell, Dr. J. L., University of Virginia.
Callender, George W., F.R.C.S., London, Eng.
Carpenter, Dr. W. M., New York.
Castle, Dr. F. A., New York.
Chaillé, Dr. S. E., New Orleans, La.
Chamberlain, Dr. C. W., Hartford, Conn.
Cleborne, Dr. C. J., U. S. Navy.
Coleman, Dr. John S., Augusta, Ga.
Cooley, Dr. James S., Sandy Hill, N. Y.
Crothers, Dr. T. D., Hartford, Conn.
Currie, Dr. D. A., Englewood, N. J.
Cushier, Dr. Elizabeth, New York.

Da Costa, Dr. J. M., Philadelphia.
Dana, Dr. C. L., New York.
Derby, Dr. Richard H., New York.
Duncan, Dr. William F., New York.

Eliot, Dr. Ellsworth, New York.
Ely, Dr. W. S., Rochester.

Fairbairn, Dr. H. A., Brooklyn, N. Y.
Fanning, Dr. W. A., New York.
Finlay, R. W., V.S., New York.
Fisher, Dr. C. Irving, Holbrook, Mass.
Foster, Dr. Frank P., New York.
Fowler, Dr. George B., Brooklyn, N. Y.
Fox, Dr. G. H., New York.
Fryer, Dr. B. E., U. S. Army, Fort Leavenworth, Kansas.

Gardiner, Dr. R. W., New York.
Gibbs, Dr. B. F., Washington, D. C.
Goss, Dr. F. W., Roxbury, Mass.
Griswold, Dr. Gaspar, New York.

Hamilton, Dr. A. McLane, New York.
Hamilton, Dr. George, Philadelphia.
Harvey, Dr. P. F., U. S. Army.
Healy, Dr. James J., Newburyport, Mass.
Hewlett, Dr. W. W., Babylon, L. I.
Hobbie, Dr. John R., New York.
Holden, Dr. Edgar, Newark, N. J.
Hotz, Dr. F. C., Chicago, Ill.
Howe, Dr. Joseph W., New York.
Hunt, Dr. Ezra M., Metuchen, N. J.
Huntington, Dr. George, La Grangeville, N. Y.
Hurd, Dr. E. P., Newburyport, Mass.
Hutchison, Dr. Joseph C., Brooklyn, N. Y.
Hutchinson, Dr. James H., Philadelphia, Pa.

Jacobi, Dr. A., New York.
James, Dr. Frank L., Osceola, Ark.
Jewett, Dr. P. A., New Haven, Conn.
Johnson, Dr. C. M., Harvard, Ill.

Kohn, Dr. Samuel, New York.

Law, James, Brooklyn.
Lidell, Dr. John A., New York.
Loomis, Dr. Alfred L., New York.
Lusk, Dr. William T., New York.
Lyman, Dr. Henry M., Chicago, Ill.

McKee, Dr. J. C., Prescott, A. T., U. S. Army.
McLean, Dr. Leroy, Troy, N. Y.
Mercer, Dr. A. Clifford, London, Eng.
Miller, Dr. S. M., Philadelphia, Pa.
Mitchell, Dr. S. Weir, Philadelphia, Pa.
Munn, Dr. John, New York.

Neftel, Dr. W. B., New York.
Nichols, Dr. C. E., Troy, New York.
Noyes, Dr. H. D., New York.

O'Brien, Dr. F. H., New York.
O'Brien, Dr. J. E., Scranton, Pa.
Oppenheimer, Dr. Isaac, New York.
Orton, Dr. J. G., Binghamton, N. Y.

Palestine, Dr. H., Texas.
Partridge, Dr. Edward L., New York.
Pepper, Dr. Wm., Philadelphia, Pa.
Peters, Dr. J. C., New York.
Peters, Dr. Samuel, Cohoes, N. Y.
Pierce, Dr. C. L., San Francisco, Cal.
Pierson, Dr. Wm., Jr., Orange, N. J.
Piffard, Dr. H. G., New York.
Platt, Dr. A. R., Ching-Kiang, China.
Poore, Dr. C. T., New York.
Porter, Dr. P. Brynberg, New York.
Post, Dr. A. C., New York.
Post, Dr. George E., Beirût, Syria.
Potter, Dr. H. C., Prairie City, Iowa.
Putzel, Dr. L., New York.

Rachel, Dr. George W., New York.
Ranney, Dr. A. L., New York.
Reese, Dr. John J., Philadelphia.
Roberts, Dr. M. Josiah, New York.
Robinson, Dr. Beverley, New York.
Roe, Dr. J. O., Rochester, N. Y.

Satterthwaite, Dr. T. E., New York.
Sayre, Dr. Lewis A., New York.
Schweig, Dr. Geo. M., New York.
Seguin, Dr. E. C., New York.
Seymour, Dr. C., Northampton, Mass.
Shoemaker, Dr. John V., Philadelphia, Pa.
Shrady, Dr. Geo. F., New York.
Sims, Dr. J. Marion, Paris, France.
Smith, Dr. Wm. Manlius, Manlius, N. Y.
Squibb, Dr. E. R., Brooklyn, N. Y.
Sternberg, Dr. Geo. M., U. S. Army, Fort Walla Walla, W. T.
Stillé, Dr. Alfred, Philadelphia, Pa.
Stillman, Dr. Chas. F., Plainfield, N. J.
Swords, Dr. R. S., Newark, N. J.

Tagen, Dr. C. H. von, Chicago, Ill.
Taylor, Dr. C. Fayette, New York.
Thompson, Sir Henry, London, Eng.

Van Buren, Dr. Wm. H., New York.
Vance, Dr. Ap. M., New York.

Ward, Dr. J. M., Cornelia, Mo.
Weir, Dr. Robert F., New York.
Weissé, Dr. Faneuil D., New York.
Wells, Dr. J. T., Bakersfield, Cal.
White, Dr. C. B., U. S. Army.
Wood, Dr. Thomas F., Wilmington, N. C.
Wood, Dr. Wm. D., Queens Co., N. Y.
Wyeth, Dr. John A., New York.
Wylie, Dr. W. Gill, New York.

Medical Societies and Medical Institutions from which Reports have been Received.

American Association for the Cure of Inebriates.
American Medical Association.
Arkansas State Medical Society.
Bellevue Hospital, New York.
Charity Hospital, Blackwell's Island, N. Y.
Chicago Gynecological Society.
Chicago Medical Society.
Connecticut Medical Society.
Cook County Hospital, Chicago, Ill.
Episcopal Hospital, Philadelphia, Pa.
Hospital of the University of Pennsylvania.
Massachusetts Medical Society.
Medical Society of the County of New York.
Medical Society of the State of Illinois.
Medical Society of the State of New Jersey.
Medical Society of the State of New York.
Medical Society of the State of Pennsylvania.
Medical Society of the State of Rhode Island.
Michigan Medical Society.
National Board of Health.
New York Academy of Medicine, N. Y.
New York Neurological Society, N. Y.
New York Pathological Society, N. Y.
New York Supreme Court.
New York State Woman's Hospital, N. Y.
Ohio State Medical Society.
Paris Hospitals.
Pennsylvania Hospital, Philadelphia.
Philadelphia College of Physicians.
Philadelphia County Medical Society.
Philadelphia Hospital, Philadelphia, Pa.
Queens County Medical Society.
Rhode Island Medical Society.
St. Thomas's Hospital, London, Eng.
West Chicago Medical Society.
Woman's Hospital, Philadelphia.

THE MEDICAL RECORD.

VOL. XV. JANUARY 4, 1879. No. 1.

Original Lectures.

LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

BY JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON IN CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

LECTURE VI.

TALIPES EQUINUS—PATHOLOGICAL ANATOMY—CAUSES—TREATMENT EQUINO-VARUS AND EQUINO-VALGUS—TREATMENT.

TO-DAY, gentlemen, we will consider the simplest and most frequent form of club-foot, *talipes equinus*, or *horse-foot*, so called from its supposed resemblance to the foot of the horse.

In the opinion of all authors, simple equinus is rarely congenital, but we find at birth combinations of this distortion with other varieties, such as equinus varus and equinus valgus. "I have met," says Mr. Tamplin, "with pure talipes equinus congenitus." It usually occurs in infants under five years of age, but it may commence much later in life.

In well-marked cases of talipes equinus there is complete elevation of the heel, unaccompanied by lateral distortion, either inward or outward, increase in the concavity of the longitudinal arch, producing shortening of the foot, and a corresponding prominence of the head of the astragalus on the dorsum. The patient in walking rests entirely on the heads of the metatarsal bones, which become separated from each other in consequence of the pressure of the weight of the body, so that the anterior part of the foot is increased in width.

These appearances are well shown in the cast which I hold in my hand (Fig. 20), which represents a classical case of talipes equinus in the adult. There are, however, various degrees of the deformity, depending on the amount of flexion in the tibio-tarsal articulation. We may have simply *rectangular contraction of the tendo Achillis*, a condition in which the heel touches the ground and the movements of the ankle-joint are free, except when the patient attempts to raise the foot beyond the right angle when the leg is extended, giving rise to great inconvenience in walking; or the deformity may involve the utmost possible elevation of the os calcis.

The toes are usually in a condition of forced extension—drawn up at right angles to the metatarsal bones, as you see in this cast (Fig. 21). This indicates that the anterior muscles of the foot and leg retain their power; and when they are affected with spasm, the toes are flexed upon themselves, as seen in this cast (Fig. 22).

In exceptional cases, all the anterior muscles are completely paralyzed, and the ligaments are greatly relaxed. The foot then becomes bent upon itself, so

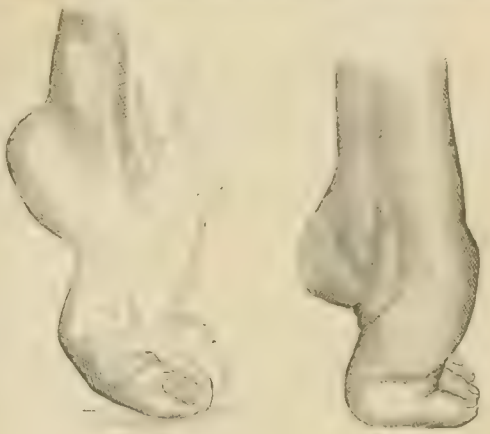


FIG. 20. FIG. 21.

that the dorsal surface rests upon the ground. This condition is well represented by the cast (Fig. 23).

When we study the *pathological anatomy* of this deformity, we find that the *bones* have undergone very little change in form. This is true even in cases which, beginning in childhood, have existed for many years. The *position* of the bones, however, is materially altered. The tuberosity of the os calcis is

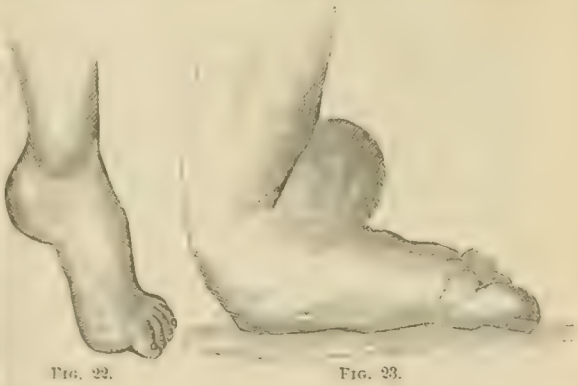


FIG. 22. FIG. 23.

raised by the contraction of the gastrocnemius and soleus muscles, sometimes to such a degree that the upper surface of this bone is brought in contact with the posterior surface of the tibia. The degree of elevation of the heel depends not merely on the amount of contraction of the muscles of the calf, but also on the amount of flexion of the anterior or the posterior part of the foot at the transverse tarsal joint.

The degree of elevation of the heel is often more apparent than real. The elevated position of the os calcis causes the *astragalus* to project downward and forward, and its head presents prominently on the dorsum of the foot (Fig. 20).

The metatarsal bones approximate to a vertical position, and, in old and severe cases, their anterior ex-

tremities are separated laterally, thus increasing the breadth of that part of the foot. In the cases already mentioned, when the paralysis is complete and the foot is retroverted, the metatarsal bones are situated at right angles to the leg, as seen in this cast (Fig. 23).

The ligaments are either elongated or contracted, according to their situations on the anterior or posterior surfaces of the foot, and in proportion to the degree and duration of the deformity. The muscles chiefly concerned in the production of talipes equinus are the triceps suræ, which elevate the os calcis, and the flexor brevis digitorum, which contracts the longitudinal arch of the foot. The plantar fascia is also contracted. The structure of the muscles will be found in varying stages of fatty and fibrous degenerations, the changes depending upon the cause and duration of the deformity. In cases of paralytic origin especially, fatty and fibrous degeneration usurp the place of normal muscular fibre, while in cases of spasmodic origin and those arising from injuries, the healthy muscular tissue has degenerated very much less.

Causes.—By far the most frequent causes of non-congenital talipes equinus are muscular spasm of the triceps suræ and paralysis of the anterior muscles of the foot and leg. It also arises from wounds of the gastrocnemius, or the nerves supplying that muscle, and abscesses occurring in the course of the muscle, and about the ankle-joint, long-continued unchanged position, scrofulous and rheumatic inflammations of the ankle-joint.

Prognosis.—With regard to the *prognosis* of talipes equinus, we must consider, in the first place, the nature of the cause—whether the ankle-joint is directly or indirectly affected.

In the former class of cases, the deformity depends usually upon paralysis of the flexors of the foot, and contraction of the triceps suræ, and the prognosis is based upon the degree of paralysis and the condition of the muscular structure.

When it is produced by a puncture or other wound of the muscles of the calf or their nerve-trunks, or abscesses in the course of the muscle or in the neighborhood of the ankle-joint, the prognosis is generally favorable, both as regards the removal of the deformity and the restoration of the functions of the foot.

When the distortion arises from *causes directly affecting the joint*, such as rheumatic or scrofulous inflammation, in which there is a strong disposition to bony anchylosis, the prognosis is less favorable.

The age of the patient, as well as the duration and degree of the deformity, have an important influence on the length of the treatment, and also on the ultimate result, and should cause you to be guarded in your prognosis.

In a large majority of cases the deformity can be removed by appropriate treatment, and the foot can be kept in proper position by suitable appliances; but to re-establish free motion and complete voluntary power over the foot, and to give tone to the muscles, is not so easily accomplished, especially when the distortion is due, either to complete paralysis of the flexor muscles, or to causes directly affecting the interior of the joint. In cases of long standing the bones themselves participate in the deformity, and of course this malformation exercises a material influence on the prognosis.

The treatment of talipes equinus involves the use of mechanical, physiological, and operative means depending upon the cause and degree of the deformity.

For cases *caused by paralysis of the flexor muscles* the physiological and mechanical treatment is usually sufficient. We should endeavor to overcome the paralysis according to the rules previously suggested for the physiological treatment, viz., by passive exercises, frictions, dry heat, massage, electricity, etc.

We should at the same time endeavor to counterbalance the action of the extensors by the use of the apparatus I here show you (Fig. 24). It consists of two

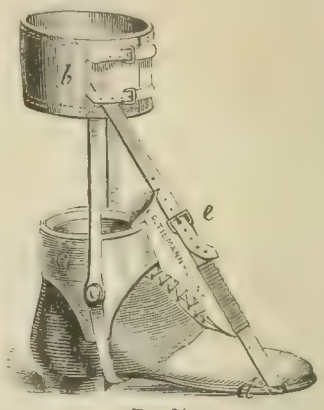


Fig. 24.

lateral upright bars fastened to the iron sole of a strong shoe, jointed at the ankle and connected to a band below the knee. A stout elastic strap extends from a stirrup over the toes to the calf-band and supplies the place of the paralyzed flexors. This strap may be regulated to any degree of tension. The heel is retained in its place by a strap across the instep.

In mild cases—those in which the foot can be flexed with the hand—the apparatus, conjoined with the physiological treatment, will be sufficient to accomplish a cure. If these means fail, shall we, in paralytic cases, resort to tenotomy? This will depend upon the degree of paralysis of the flexors and the degree of contraction of the extensors. If there is complete paralysis of all the anterior muscles of the leg, with but slight contraction of the posterior muscles, I have no hesitation in saying that no benefit will result from the operation. The paralysis is, however, usually limited to a few muscles, while others retain a considerable amount of power. The muscles involved and the degree of paralysis can be quite accurately determined by galvanization.

When the paralysis is not complete, I should recommend section of the tendo Achillis, for it is a matter of experience that the removal of the contraction materially aids in the restoration of power to the paralyzed muscles.

The tendo Achillis must be divided in the manner previously described (page 503, vol. xiv.), and the subsequent treatment consists in keeping the foot at rest in its abnormal position for three or four days, by the use of a plaster splint, and afterwards apply the apparatus just described (Fig. 24).

The tension of the elastic strap should be so regulated as to bring the foot very gradually to its normal position, not making the extension too rapidly, lest the connecting medium be too much elongated and thus destroy the function of the gastrocnemius, or produce the opposite condition, calcaneus, nor so slowly that the tendon will be reunited before the distortion has been entirely removed. The extension should be completed in about six weeks.

What shall we do for *cases of rectangular contrac-*

tion of the tendo Achillis? In these cases you will remember that the heel touches the ground in standing, and there is sufficient contraction of the tendo Achillis to prevent flexion of the foot beyond a right angle with the leg, but there is no obvious deformity. This slight contraction, however, gives rise to serious inconvenience and lameness, as you can readily understand when you remember that we raise the foot beyond the right angle in every act of walking or running.

This class of cases may arise from any of the causes of talipes equinus already enumerated, and we may say generally that the same rules of treatment apply to them as to other cases, with the exception that in no case should tenotomy be performed unless the muscles are in a healthy condition. In other conditions the operation may often be performed with great benefit to the patient.

In cases of talipes equinus, the *result of active contractions or spasm of the extensor muscles*, or arising from causes affecting the joint, the treatment should be initiated by tenotomy.

Passive exercises, electricity, etc., even when combined with mechanical treatment, will not overcome the distortion, except in very recent and slight cases; but they are useful adjuvants to the operative treatment. If any of the joints that are essential to the proper movements of the foot are ankylosed, it will be useless to attempt a cure even by a section of the different tendons.

The tendo Achillis is usually the only tendon requiring division; but occasionally you will find the posterior tibial and the peronei so tense that the foot cannot be flexed, even by considerable force, after the tendo Achillis has been divided, thus making their division also necessary.

You are not often required to divide either the plantar fascia or the flexors of the toes, although they may appear quite tense and contracted before any tendons are divided. You will find that the contraction of the longitudinal arch of the foot disappears, and that the toes assume their natural position, at least as a general rule, when the foot has been brought to a rectangular position with the leg. Should they not do so, the division either of the flexor tendons or the plantar fascia, or both, in severe cases of long standing may become necessary.

TREATMENT AFTER OPERATION.

After the cutaneous punctures have healed, Scarpa's shoe must be applied, and gradual mechanical extension made, until the foot is restored to its normal position. The extension, you understand, should be so conducted as to regulate properly the length of the new material uniting the divided extremities of the tendon.

The physiological treatment must be employed as soon as the position of the foot has been restored by mechanical means, for the purpose of establishing the functions of the joints and muscles; for you would commit a very grave error if you limited your treatment merely to the removal of the malposition of the foot. "To restore the foot to its normal position," says Malgaigne, "is not to cure it, any more than we cure a fracture when we try to reduce it." Unless the power to use the limb has been restored, but little benefit has been conferred upon the patient. Electricity, shampooing, dry heat, and flexion and extension of the foot for a quarter of an hour two or three times a day are the means to be used, in these and similar cases, until the parts are brought into as healthy a condition as can be obtained.

It is often necessary, after the distortion has been removed and the functions of the joints restored, to support the ankles by two side steel supports attached to the boot, having joints corresponding to the ankle-joints and connected at the calf by a metal plate, to which a strap is attached fastening in front. A stop-joint at the ankle may be used if necessary. With this apparatus, and proper attention to exercise, there need be no apprehension of re-contraction taking place.

Equino-varus and equino-valgus are compound varieties of club-foot, characterized by a certain amount of inversion or eversion of the anterior portion of the foot, in addition to the elevation of the heel, which is the marked feature.

The special form of distortion is determined by the relative power of the adductors and abductors of the foot. The deformity is well shown in these casts

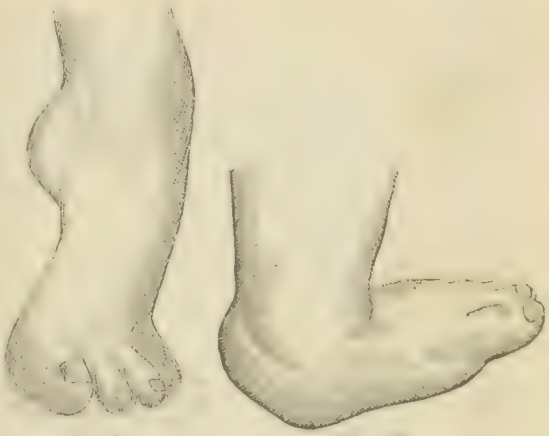


FIG. 25. FIG. 26.

(Figs. 25 and 26). The prognosis, pathology, and treatment of both the compound varieties are essentially the same as that of simple talipes equinus, except that, in order to control the lateral inclination of the foot, it may be necessary to have the sole of the shoe divided transversely at a point corresponding to the transverse tarsal joint (Figs. 12 and 13).

A PIN FOUND IN THE APPENDIX POST-MORTEM.—Dr. L. T. Morrill, of Albany, N. Y., found the following whilst making a post-mortem upon the body of a man, æt. 48, killed by a railroad accident: "An old cicatricial scar at the junction of the appendix and cœcum. The appendix measured four inches in length." On making section, a common-sized *pin* was found within. Its centre was covered by a fæcal concretion, the head and point being free, however. There were no signs of recent inflammation about the appendix. The patient had never complained of any local symptoms.

SODIUM ETHYLATE A CURE FOR NÆVUS.—This substance is prepared by adding metal sodium, piece by piece, to absolute alcohol, in a wide-mouth bottle, until effervescence ceases, when a deposition of a crystalline substance—C_2H_5NaO—occurs. The clear liquid is the part used. It is a potent caustic. Repeated applications thereof over the nævus resulted in cure in two cases reported by Dr. Brunton to the *Lancet*. It causes less pain and scarring than acid nitric.

TRANSFUSION OF MILK versus TRANSFUSION OF BLOOD.

Clinical Lecture Delivered at Charity Hospital, November 23, 1878.

By JOSEPH W. HOWE, M.D.,

CLINICAL PROFESSOR OF SURGERY IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.

Lecture III.

(Reported for The Medical Record.)

REMARKABLE IMPROVEMENT FROM TRANSFUSION OF BLOOD IN SYPHILIS AND PHTHISIS—REPETITION OF OPERATION IN SYPHILIS AND PHTHISIS—RESULTS OF SIX OPERATIONS WITH COLIN'S INSTRUMENT AND DEFIBRINATED BLOOD—RESULTS OF ONE OPERATION WITH AVELING'S INSTRUMENT—TRANSFUSION WITH A GLASS FUNNEL AND RUBBER TUBE—IS TRANSFUSION OF MILK A JUSTIFIABLE OPERATION WHEN BLOOD CAN BE OBTAINED?

Gentlemen:—Last Saturday those two patients were brought to this amphitheatre in a very low condition. One was suffering from syphilis and phthisis; the other had phthisis in the third stage. They were both transfused with blood. To-day they are able to walk to the amphitheatre without assistance. The patient with syphilis was transfused with undefibrinated blood mixed with ammonia. Half an hour after the operation he was seized with a chill, which lasted fifteen minutes. His temperature during the chill was 100¼° F., and his pulse was 120 per minute. Two hours subsequently his pulse ran up to 158, and his temperature increased to 103°, and he expectorated a small quantity of bloody mucus. At 10 P.M. the same evening his pulse went down to 116, and the temperature decreased to 100¼°. At 6 P.M. the day following, his pulse was only 88, and his temperature 99¼°. On the third day after the operation the syphilitic ulcers on the patient's limbs showed signs of rapid healing, and on the fifth day they were covered with a thin layer of new cicatricial tissue. The pigmentation of the skin has disappeared in many places. The patient's appetite is better, and he feels stronger in every way. The remarkably sudden changes in his condition can only be attributed to the transfusion of blood. No medicine that I know of would produce them. Indeed, all the medicines he has been taking for the past six months have failed to benefit him.

The patient with phthisis whom I transfused with defibrinated blood by means of Colin's instrument, has had no bad symptoms whatever. There was no chill as in the previous case, nor was there any increase in the temperature or pulse. His temperature has not been above 99° F., and the pulse has averaged 90 beats per minute. It is now much stronger and fuller than before the operation. He says he feels strengthened in every way.

Now, I do not expect that the remarkable improvement which has taken place in these two cases will be kept up, unless transfusion is repeatedly performed. Both of them are afflicted with serious organic disease. Their blood-making and assimilating organs are working feebly, and furnish but little material to sustain their failing strength, and unless new life is given them by the introduction of fresh blood, the delicate machinery must soon cease working. To insure a successful issue, these patients should have the transfusion repeated once a week for the next six weeks. That is the only way that the fullest benefit can be derived from the operation. I doubt very much whether they would consent to the necessary number of operations. They are willing to have transfusion performed once more. The syphilitic patient, however, wishes a respite of another week before it is repeated. The phthisical patient is willing to have it done at once.

I will defibrinate the blood as before, by whipping it for two or three minutes with a glass rod, straining it through linen, then whipping it again, and finally straining it through a piece of boiled satin into a glass dish containing a solution of ammonia. I was formerly of the opinion that, in the process of defibrination, the globular elements were diminished to such an extent as to impair the restorative qualities of the injected blood. Further investigation has convinced me that such is not the case, and you have seen here that as much improvement has followed the use of defibrinated blood as has occurred when the blood was undefibrinated.

The opening made last week in the left basilic vein has not yet healed. I will therefore open the vein in the corresponding arm and introduce the closed canula as before. The bowl of the instrument is now filled with blood and the tube attached to the canula in the arm.

Injection commenced; Dr. Stein noting the changes in the pulse.

Dr. Stein: The pulse is 84 and regular.

Prof. Howe: One cylinderful has been injected. How do you feel?

Patient: All right.

Dr. Stein: There is no change in the pulse.

Prof. Howe: There is now nearly two ounces of blood in. Do you feel any worse?

Patient: I have no bad feeling, except where the cut was made in my arm.

Dr. Stein: The pulse is not so frequent.

Prof. Howe: The cylinder of the instrument holds a little over half an ounce. I have thrown in two more, which makes over three ounces of blood added to the patient's circulation. How do you feel now?

Patient: I feel all right.

Dr. Stein: Pulse is stronger, and a little more rapid—88 per minute.

Prof. Howe: I have injected another ounce. The patient's respiratory movements are somewhat quicker. Have you any pain in your chest?

Patient: None whatever.

Prof. Howe: Have you any pain in your head, or any dizziness?

Patient: No sir; I feel all right.

Dr. Stein: The pulse is slower and quite regular.

Prof. Howe: He has now four ounces and a half of fresh blood. There have been no unfavorable symptoms in any stage or form. Can you get up without assistance?

Patient: Certainly I can.

Prof. Howe: All the changes following this operation will be carefully noted as before, and the results exhibited at our next meeting.

We have here another patient in the last stages of phthisis. She is twenty-four years old, and was perfectly well up to within three years of her admission to this hospital. She then contracted a severe cold, which settled on her lungs, and produced chronic inflammation at the apices. The lung tissue is breaking down rapidly. On the right side there is a cavity, and the whole lung seems to be involved in the destructive process. She is, as you see, very anæmic and emaciated. Her pulse is 110, and very feeble. Her temperature varies from 99° to 102°. To-day it is at the latter figure.

I will now show you the operation of transfusion with Aveling's instrument. This is a simple and comparatively cheap instrument. It consists of a rubber bulb, with a tube running off from each side. To the extremity of each tube is attached a silver canula - one with a bevel point and the other with a round point. The instrument is prepared for the operation by placing it in a basin of warm water, and alternately compressing and relaxing the bulb, until all the air is driven out and water drawn in to fill its place. The stop-cocks are then turned to retain the water in the tube. Having everything ready, I now distend the veins in the donor's arm by tying a bandage above the elbow and pinch up the integument over the median basilic vein, and incise it. Placing my thumb and forefinger at each end of the incision over the vein, I open the vessel a quarter of an inch. The canula, with the round extremity, is then passed into the vein from above downward, and held by the thumb and forefinger of an assistant. The vein in the patient's arm is opened in a similar manner, and the bevelled canula introduced. Now the bulb and tubes contain nothing but water. I compress the tube between the bulb and the arm of the donor, and then compressing the bulb, force the water into the vein of the patient. Before I relax my pressure on the bulb the tube near the arm of the patient is compressed. The bulb is then allowed to expand, and as it does so, the blood is drawn into it from the veins of the donor. When the bulb is filled with blood the same manœuvres are gone through with, until the necessary amount of blood is injected.

Now I have emptied the bulb nine times, and the tube has become clogged, so that no more can be injected. The bulb holds two drachms; so the patient has received sixteen drachms of blood and two drachms of water, scarcely enough to bring about any marked improvement in the patient. There have been no bad symptoms whatever during the injection, and I don't think any clots entered with the last portions of blood.

[The remainder of the hour was occupied by Prof. Howe in excising the shoulder joint of a patient suffering from long-standing arthritis.]

Saturday, Nov. 30th.—Michael Murphy, the patient with syphilis and phthisis, who was transfused with undefibrinated blood two weeks ago, was again presented. During the interval he had had a severe hemorrhage from the lungs, which, however, did not seem to weaken him. The operation of transfusion was repeated with Colin's instrument. Defibrinated blood, mixed with ammonia, was injected without a single unpleasant symptom developing either during or after the operation.

Wm. B. Mulcahy, æt. forty-eight, was next examined. He was suffering from tertiary syphilis and phthisis. Both lungs were extensively diseased. The liver was enlarged from waxy deposit. There was fluid in the abdominal cavity. The patient also suffered from profuse diarrhœa, which could not be controlled by medicines. He was exceedingly feeble, and unable to help himself in any way. Four ounces of undefibrinated blood were injected by means of Colin's instrument. Dr. Frankel, who noted the changes in the pulse, reported no unfavorable change during the operation.

H. B., æt. twenty-seven, was admitted to Charity Hospital March 19th, suffering from tertiary syphilis and phthisis. She was sinking rapidly when first examined, and there was every evidence that death would soon terminate her sufferings. Transfusion was performed Thursday, Dec. 5th. The instrument used was a glass funnel, to which a rubber tube and canula had been attached. Nearly four ounces of defibrinated blood passed into the circulation. The pulse at the commencement went up to 160, but afterward fell to 130; temperature, 102°. No other change was noticed during the operation.

On Dec. 6th her pulse went down to 103; temperature fell to 99° F.

Dec. 11th she was in much better condition than before the operation, and is desirous of having it repeated.

On Dec. 11th, C. S., in a dying condition from syphilis and phthisis, was transfused with defibrinated blood by means of Colin's instrument. She was insensible when the operation was performed. Her pulse varied from 140 to 180, and was often imperceptible. Five ounces and a half of blood were injected without any further development of dangerous symptoms. A few minutes after the operation the pulse went down to 126, and the respiratory movements became more regular. The insensibility was also lessened. The improvement, however, did not continue, and death took place the next day, Dec. 12th.

Recapitulation.—We have had nine operations for transfusion performed during the past five weeks. All of the patients were suffering from advanced phthisis and syphilis. They were selected from the lowest and worst cases that enter Charity Hospital. They were all supposed to be beyond the reach of ordinary therapeutical measures. The first patient was transfused with milk (three and a half ounces). Symptoms indicating speedy dissolution developed during the operation. These subsequently disappeared, and some improvement in the general condition occurred, and continued for nearly two weeks. The patient did not wish the operation repeated. I could not find another who wished to try the milk. The second case was transfused with undefibrinated blood, mixed with ammonia. The operation was performed with the aspirator, which I had previouly used in twelve cases. Dizziness, dimness of vision, and pain in the chest, with increased rapidity of the pulse, took place during the transfusion. Remarkable improvement followed. The syphilitic ulcers healed over, and strength and appetite returned. Two weeks afterward the operation was repeated on the same patient with Colin's instrument and defibrinated blood. The second operation was characterized by an entire absence of all the unfavorable symptoms which appeared when the aspirator was employed, and was followed by a corresponding progress toward a healthy state.

In the third case transfusion was performed *twice* with Colin's instrument, and defibrinated blood mixed with ammonia injected as in the previous case. No unfavorable symptoms developed during or after the operation. Marked improvement followed each transfusion, and the patient is still in excellent condition.

The fourth case was transfused with Aveling's instrument. Little or no improvement followed, because the quantity of blood injected was too small.

In the fifth case Colin's instrument was used as before on a patient in a moribund condition. There were no bad symptoms during or after the transfusion. Death occurred on the fourth day.

In the sixth case, defibrinated blood mixed with ammonia was used. The instrument employed was a glass funnel with rubber tube and canula attached. Patient is still improving.

The seventh patient was in articulo mortis when transfusion was performed. Five ounces and a half of defibrinated blood mixed with ammonia were injected with Colin's instrument. No bad symptoms

occurred from the operation. The improvement, however, did not last more than two hours, and death took place the following day.

Colin's instrument was used *six* times without any unfavorable symptoms attending the operation, and as much improvement occurred as when the undefibrinated blood was used. I was somewhat surprised at this, because the first time I used the instrument in 1876 the symptoms were alarming and the operation had to be suspended. I think, however, that the blood in that case was not thoroughly defibrinated.

Judging from the results obtained during the present session, I am satisfied that transfusion of blood may be performed in the most extreme cases of exhaustion from excessive hemorrhage or organic disease without danger. The only thing necessary is to defibrinate the blood thoroughly and mix it with ammonia and inject it with Colin's instrument. Though I have not lost a patient from the use of my own instrument employed in thirteen cases, the symptoms exhibited have been often of such a startling nature that I feel justified in adopting for future use an operation which is free from these unfavorable symptoms, and at the same time one which is followed by equally good results.

An examination of the twenty cases transfused with blood by me during the past five years show that marked improvement followed the operation in eight cases, an improvement that could not be brought about by ordinary means. Improvement lasting but a few days occurred in seven cases. In *three* no beneficial change resulted, because faulty instruments were employed and the operation had to be suspended. One of the patients was in articulo mortis when the operation was performed, but even in this one, change for the better occurred. One made a complete recovery.

If we carefully compare the results of transfusion of blood with the results obtained from transfusion of milk, it will be readily seen that the symptoms developed during the latter operation indicate greater danger to life than those which are witnessed in the former, and that much more improvement follows the injection of blood than has ever been brought about by the intravenous injection of milk. Some of the improvement which took place in the cases reported by Prof. T. G. Thomas, of this city, and Dr. Charles Hunter, of Philadelphia, was undoubtedly due to stimulants administered during and after the operation. Brandy and ammonia were administered freely to some of Dr. Thomas's patients, and quinine in twenty-grain doses to Dr. Hunter's. These powerful remedies could not but induce an increase in the vital forces. It would not be reasonable, under the circumstances, to attribute the favorable change solely to the milk. Milk in the circulation is a foreign material, and though it is possible that the milk globules may ultimately be converted into blood-globules, yet the period of conversion would be so great as to preclude the probability of an immediate restorative effect. In this connection I may mention that Dr. Prout, of Brooklyn, in a communication to the MEDICAL RECORD, May 11, 1878, gives some interesting experiments in milk transfusion made by Dr. Wulfsberg, of Göttingen. Dr. W. found that a few hours after the injection of milk, the milk globules became enclosed in a colorless blood-corpuscle, and that ultimately the number of these colorless globules became very much increased. Dr. W. considers the intravenous injection of milk a dangerous operation unless the quantity employed is very small.

There is no doubt in my mind that the intravenous injection of milk is a dangerous operation, and one that should only be resorted to when blood cannot be obtained. Blood is the natural vitalizing element of the tissues, and with the precautions which I have pointed out, may be injected into the veins in all cases of acute anæmia, and excessive exhaustion from organic disease, without any danger to the patient.

Original Communications.

A CONTRIBUTION TO THE MEDICINAL TREATMENT OF CHRONIC TRIGEMINAL NEURALGIA.

By E. C. SEGUIN, M.D.,

NEW YORK.

(Read before the New York Neurological Society.)

HAVING recently met with three cases of severe chronic cases of neuralgia of the trigeminus which have been favorably influenced by the internal administration of medicines, I have requested the privilege of presenting a report upon them to the Society.

CASE I.—*Epileptiform neuralgia of thirteen years' standing: cure.*—J. W., a farmer, aged 63 years, presented himself at my clinic for Diseases of the Nervous System on or about June 15, 1878, and gave the following history: Has suffered from neuralgia in the right side of the face for thirteen years. The first pain, slight and stinging, made its appearance near the external angular process of the frontal bone. There was a gradual increase in the frequency of the paroxysms, and in the severity of the pain until the time of examination. During three years has had almost constant pain, *i. e.*, the paroxysms have been repeated every two or three minutes. There has been much pain at night, but the greatest suffering has always been experienced in the forenoon. The seat of neuralgia has been the right malar region and the lower anterior temporal region. Paroxysms have been excited by the contact of clothing or of the finger; by talking or eating, and by pulling the hair on the lip and cheek. The pain has never been periodical.

The patient's general health has always been good; he has had two attacks of malarial fever: one when a boy, the last six years ago. When the attack began he was living in Marlboro, Ulster Co., N.Y., considered a healthy place. Has never had syphilis; has always been temperate.

Attack witnessed at the clinic: A sharp and exceedingly severe pain appears in the region defined above, accompanied by injection of the cheek and eye, and the escape of tears. The paroxysm lasts several seconds, and returns every two or three minutes. Nitrite of amyl seems to mitigate the suffering. Examination of the affected and of adjacent parts is negative; there is no anæsthesia or true tender points, or any exciting cause of pain within the mouth. The etiology of the affection is unknown.

Treatment.—From June 17th to 21st, hypodermic injections of Squibb's chloroform were made daily through the mucous membrane of the cheek toward the malar region, from one to ten minims being used each time. In making these injections care was taken to avoid the point of exit of the infra-orbital nerve. The last injection was made near the supra-orbital nerve. These injections produced some smarting pain and secured relief for several hours each day, but did

no more; the pain returning the next day as severely as before. Some bad effects were, however, produced, and these are worthy of consideration because hypodermic injections of chloroform in the face are usually considered harmless. I observed in this case some swelling at the seat of injection, paresis of the lower facial muscles of the type produced by lesions of the cerebral hemispheres; there was also marked numbness and slight anæsthesia in the skin of the cheek near the angle of the mouth, and over the eyebrow. The electro-muscular reactions remained normal, no abscess followed, and the paresis gradually passed away. I might add that similar unpleasant results ensued in another case in my practice about a year ago.

On June 26th, 27th, 28th, daily injections of Fowler's solution (diluted one-half) were made in the affected cheek through the mucous membrane without good or bad effects.

From June 21st to 26th, I tried Thompson's solution of phosphorus, in doses of one teaspoonful (=$\frac{1}{15}$ gr.) three and four times a day without marked benefit.

Still, on the whole, at the end of June, the patient was somewhat improved, having severe paroxysms only from four to ten times a day; though slight, sharp pains were still very frequent.

About the end of June he was given iodide of potassium in gradually increasing doses of a saturated solution. He began with ten drops three times a day, and by an increase of five drops per day at each dose, he attained a maximum of ninety-five drops three times a day. No evident benefit resulted from this course, which was terminated on July 12th.

On July 13th, was ordered five drops of the fluid extract of gelseminum four times a day. July 15th.—Reports himself as very much relieved; no special symptoms have been produced by the drug; is directed to take eight drops four times daily. July 16th.—Yesterday had no paroxysm except while eating; there have been frequent but bearable "ticks" of pain in the vicinity of the right external angular process of the frontal bone. Is ordered to take ten drops four times a day.

August 1st.—About this time, as the patient could no longer stay in town, and as I was unwilling to let him take gelseminum while away from observation, the solution of iodide of potassium was again given in doses of sixty drops three times a day.

August 10th.—Patient returns to town, and reports himself no better; he has taken the medicine regularly, and has kept a journal of the attacks. The number of attacks per diem, usually excited by eating, etc., have varied from four to eight. The iodide is suspended. The actual platinum cautery is gently applied over the right malar and temporal regions, and five drops of Fowler's solution are given in water three times a day, to be gradually increased. August 20th, the diary shows a decrease in the number and in the severity of the pains; only from three to five paroxysms each day; three yesterday. Has been cauterized three times.

August 22d.—About this time the neuralgia ceased altogether, the dose of Fowler's solution being ten drops three times daily.

September 22d.—Patient has had no pain since the last note—a period of thirty-two days. Absolutely no pain has been felt, and the hyperæsthesia has disappeared; patient can eat, talk, wash, or rub his face with impunity for the first time in many years. The paresis of the lower face, produced by the injections of chloroform, has nearly passed away, and there is no more numbness. No toxic effects have been caused by the arsenic; but, as he has taken ten drops so long, a change is made to Thompson's solution of phosphorus, one teaspoonful three times a day.

On September 24th a few slight paroxysms occurred, and the patient, of his own accord, resumed the arsenical solution in full doses, and in a day or two the pains ceased, and they have not returned.

Early in November this patient was shown at my clinic. He then asserted that he was perfectly well, and his healthy and cheerful aspect confirmed his statement. As he has not returned, I feel reasonably sure that the good result has been permanent.*

Case II.—*Epileptiform trigeminal neuralgia of ten years' standing greatly relieved by treatment.*—H. S., aged 29 years, a janitor by occupation, consulted me on October 2, 1878, and gave the following history: Previous to the development of the present affection he had been subject to occasional dull headaches. Ten years ago he suddenly experienced a very severe sharp pain all through his head, "as if devils were at work there," lasting half an hour. There was no dizziness, or nausea, or faintness, or impairment of sight, or paralysis. For a period of six months he remained free from pain, and, indeed, was perfectly well; then a "dull, stupid pain" began over the right eye, extending from the supra-orbital notch inward to the nose, and down the side of the nose to the ala. This pain was paroxysmal, and worse in the day-time. Later the pain extended to the eyeball, and was exceedingly severe; the paroxysms recurring from ten to twelve times a day. In the course of two or three years pain made its appearance in the right temple, worse at night.

In the last few years the most pain has been on the top of the head, above the temple, and in front of the ear to the bregma. There has lately been an occasional and rare pain in the nose; not much in the temple. During the past summer and since, there has been some occipital pain on both sides, more on the right. In the last year there has also been pain in both jaws, in the upper lip near the median line; none in the tongue. In the last four years vision has been dim, and glasses have not corrected this defect. Five years ago, while taking medicine, had temporary diplopia. At various times during this long illness has had "dizzy spells" with varying frequency; seldom in the last few months. Has had no symptoms in other parts of the body; memory is impaired; the virile power quite lost. Had severe dyspepsia and vomiting three years ago, and has been costive during the whole period of the disease. The various painful regions are hyperæsthetic, but not numb, and the tactile sensibility is perfectly preserved on both sides. There is no facial paralysis; the right pupil is positively small, the left normal. After dilatation by atropine, the ophthalmoscope shows nothing abnormal in the bottom of the eye. Hearing, smell, and taste are normal. The urine has been frequently examined by physicians and always found normal; it is now free from albumen. Marked anæmia is present in the skin and mucous membranes; has always been pale.

The paroxysms of pain are the most terrible which I have ever witnessed; the patient fairly writhing in his chair or falling to the floor in his agony. During the attack the right eye is very much injected and waters.

The patient states that no medicine has ever relieved him, and he has tried a great many. I at once prescribed Duquesnel's crystallized aconitia, a remedy

* A letter from this patient's wife, received about December 10th, states that he remains well.

with which I had obtained remarkable results during the year. The prescription was:

℞. Aconitiæ (Duquesnel's)..... gr. ½
Alcoholis,
Glycerinæ, āā..... ℥ i.
Aq. menthæ pip. ad..... ℥ ij.
M.
S.—A teaspoonful three times a day between meals.

I also gave him one teaspoonful of Wyeth's dialyzed iron every evening at bed-time.

Oct. 3d.—Has severe paroxysms every day; seven on October 3d, and nine yesterday.

Oct. 11th.—Has only slight physiological effects (numbness) in the finger-tips; from six to nine attacks each day. Now takes $\frac{1}{10}$ gr. aconitiæ three times a day.

Oct. 14th.—On the 12th had twelve severe spells; only two yesterday. He yesterday took, by mistake, ʒ ij. of aconitia solution, or $\frac{1}{10}$ gr., twice, and two doses of ʒ i., and this morning ʒ ij. This is the equivalent of $\frac{1}{10}$ gr. of aconitia in twenty-four hours. He is very nervous, feels as if electricity were passing through his body and limbs; he "cannot contain himself." As this was a mistake, I directed him to resume the prescribed doses of ʒ iss. ter die. The results of this mistake were, however, most fortunate; improvement began from this strong impression of aconitia upon the system, as shown in the tabular record of paroxysms:

Oct. 19th.—Excellent record; since October 13th has had only from one to three severe attacks; ordered to continue aconitia and to begin a saturated solution of iodide of potassium in five drop doses.

Oct. 31st.—Continues to do well, *i. e.*, has from one to two or three severe paroxysms daily, and a number of slight twinges. Feels numb and "very cold" from three doses of aconitia. Can't be warmed even by an overcoat; general condition much improved; physiognomy calm and contented. Besides aconitia, takes twenty-eight drops of solution of potash.

Nov. 30th.—Improvement maintained. Passes some days without severe attacks, and a few with no pain at all. Has done much of his work as janitor of late. The aconitia has lately (since 23d) been taken twice a day, and has hardly any numbness.

On Dec. 19.—Pills of arsenic $\frac{1}{75}$ gr., quinia gr. iii., and belladonna ¼ gr., were substituted for the iodide of potassium. The iron is kept up at night, ʒ i. of dialyzed iron.

Case III.—*Neuralgia of Right Inferior Maxillary Nerve of eight years' duration; cure.*—Observed at the College of Physicians and Surgeons. Mrs. A. D., aged fifty-seven; was first seen at clinic for diseases of the nervous system in the autumn of 1874. She gave the following history: In 1870 had trouble with the teeth in the right lower jaw, "caught cold in the gums," and the present pain began. It occurred in paroxysms of sharp, severe pains in the right lower jaw, right half of tongue, and right half of lower lip. She suffered with no intermission up to the time when Dr. D. M. Stimson sent her to the college. The medicinal treatment which I then advised had no more effect on the neuralgia than others which had been tried, including extraction of the teeth.

In the succeeding summer, 1875, Mrs. D. again came to see me, representing herself as under no physician's care. I accordingly took charge of her, and excised at least one-quarter of an inch of her infra-maxillary nerve by the intra-buccal method, also known as Lizars'. This was followed by absolute cessation of all pain in lip, tongue, and jaw, and by anæsthesia of the right half of the lower lip.

In a few weeks—patient thinks three or four—some return of sensibility occurred in the anæsthetic district, and has increased until now; even delicate tests reveal no anæsthesia. No pain recurred until the early spring of 1877, a period of twenty months. In April, 1877, patient's husband died, and she sat a long time near the ice-box in which his body was preserved. Immediately had a return of neuralgic pain in the same regions, viz., tongue, gum, and lower lip of right side. The pain was again sharp and paroxysmal. She suffered greatly until late in the autumn of 1877, when spontaneous relief took place, and she had pain only at intervals during the whole winter. The only medicine which she took during this time was cod-liver oil. She had no powerful drugs. In the spring and early summer of this year she had as frequent and as severe attacks of pain as at any time; many paroxysms each day, attacks epileptiform in suddenness of appearance and in severity. She presented herself at the Clinic for Diseases of the Nervous System for the third time, in July 13, 1878, and the following notes from the clinic case-book embrace her history since that date:

July 15th.—The pain begins in the gum of the right lower jaw, then darts into the right half of tongue along its whole length, especially in its anterior portions; it also affects the right half of the lower lip. She has no pain in the upper jaw or in the distribution of first branch of trigeminus, but it should be stated that she has a good deal of pain, also neuralgic in character, in the right side of the head behind the ear, the right side of the neck, and right shoulder. From almost the commencement of her illness, more or less of this pain has existed, varying greatly at times, but not annoying so much by far as the maxillary neuralgia. The paroxysms of pain in the jaw and tongue come on every few minutes. Once in a while, the patient adds, when the pain is greatest in the above described region, a little of it shows itself in the gum of the right upper jaw. Is ordered a tonic mixture.

July 20th.—Is better, generally, than last week. Ordered extract. gelsemini fld., gtt. v., t. i. d., the dose to be increased by one drop each day.

July 27th.—Pain relieved by the gelseminum, gtt. vij. of which produced queer sensations and double vision. In the last few days has taken only gtt. vi., t. i. d. Ordered gtt. v. twice a day and gtt. x. at bed-time.

August 3d.—No marked benefit from above treatment, although much distress was produced by doses. Ordered $\frac{1}{100}$ grain of Duquesnel's aconitia in solution t. i. d.

August 10th.—On the 7th reported at my office, and as the above doses had produced no effect, I directed her to take $\frac{1}{100}$ grain t. i. d. on an empty stomach. To-day (three days after beginning the larger doses) she is free from neuralgic pain, though some soreness of the parts remains. After each dose of $\frac{1}{100}$ grain had some tingling in extremities and face. Treatment to be continued.

August 31st.—Has had no paroxysm of pain since beginning the $\frac{1}{100}$ grain dose. Has only noticed an occasional soreness in the tongue, provoked especially by acids. Can eat with comfort, whereas four weeks ago attempts at mastication caused agony. States that effects of one dose of aconitia consist in tingling in the whole body, most marked in the toes and fingers, and in peculiar chilly sensations.

The pain in the neck and shoulders is not wholly relieved. Complains of much sweating at nights. To take for two or three days one ten-grain dose of sulphate of quinia at bedtime. The aconitia to be omitted, and Fowler's solution to be taken instead, in doses of gtt. iij. after meals, gradually increased.

September 14th.—Has remained perfectly free from facial neuralgia, and has had only moderate pain inside of neck, right shoulder, and upper arm. Has taken gtt. x. of Fowler's solution without unpleasant effects; sweating arrested. Ordered to cease taking arsenic, and to use ʒi. of Thompson's solution of phosphorus (= $\frac{1}{15}$ grain of phosphorus), night and morning.

September 21st.—Had slight return of pain in right lower jaw and tongue on September 18th and 19th; arrested by a few doses of aconitia. To-day is perfectly well, except that right side of neck and arm are painful.

October 11th.—Has had no return of neuralgia since last note, and neck has not been so painful. States that she has more or less pain in the whole right side from behind the ear to arms and down lower extremity to heel at times. With exception of slight neuralgic pains on September 18th and 19th, has had no recurrence of inferior maxillary or lingual neuralgia since August 7th, a period of sixty-five days.

It seems to me that three conclusions may legitimately be drawn from the above related cases:

1. That there is a possibility of relief in most severe cases of epileptiform trigeminal neuralgia. The usually received opinion is that, in such cases, recourse must be had to operation upon deep branches of the nerve, excision of Meckel's ganglion, etc., and to the systematic use of morphia to make life endurable. After my experience with the above cases, I am disposed to urge a sufferer from trigeminal neuralgia to make a trial of medicinal treatment.

2. The advantage of using medicines systematically. Not only should the doses of any one remedy be administered regularly and in progressively increasing doses, but several remedies may be used in succession, so as to profoundly affect the system. Of the medicines applicable for the treatment of neuralgia, the following are those which I can recommend most highly: aconitia, arsenic, iodide of potassium, gelseminum, belladonna, quinia, morphia, galvanism, the actual cautery, Thompson's solution of phosphorus.

3. In the treatment of chronic neuralgia and of many neuroses, it is necessary to obtain the physiological effects of the drug employed, in order to do good. This principle of heroic medication is one which ensures success in seemingly desperate cases, and its execution requires the utmost watchfulness on the part of the physician, and intelligence and faithfulness on the part of the patient and his attendants. Many unpleasant consequences of such treatment may be avoided if we at first give very small doses of the remedy, and then make a very progressive increase. The good effects of giving medicines to the production of physiological effects are illustrated in the above cases; in the treatment of chorea by arsenic; of malarial affections by quinia; of spinal congestion and myelitis by belladonna; of syphilitic disease by mercury and iodide of potassium, etc., etc.

Inasmuch as the good effects noted in Cases II. and III. were obtained by the action of Duquesnel's aconitia, it may not be amiss to close this short communication by quoting the conclusions of a report on aconitia recently made to the N. Y. Therapeutical Society by its Committee on Neurotics.*

The chairman of this committee says:

"From the above cases the following conclusions may be justly drawn, I think:

1. The susceptibility of individuals to Duquesnel's aconitia varies enormously; one individual in the series having been severely affected by $\frac{1}{200}$ grain, while another tolerated with no special symptoms $\frac{1}{24}$ grain every three hours. On the average, distinct physiological and therapeutical effects were obtained by giving $\frac{1}{100}$ grain three times a day.

2. Out of six cases of severe trigeminal neuralgia, one, probably a reflex neuralgia from a decayed tooth, was not at all benefited.

Three cases, epileptiform in character, were slightly or only temporarily relieved. Two cases were cured. One of these had existed for seven years, with an interruption of twenty months, procured by resection of the affected nerve.

It would thus appear that, while we cannot indorse Prof. Gubler's statement that Duquesnel's aconitia never fails, we must recognize in it one of the most powerful and best agents for relieving and curing trigeminal neuralgia.

3. We do not as yet know the forms of trigeminal neuralgia which can be most influenced by aconitia."

MEDIO-LATERAL LITHOTOMY, IN A COMPLICATED CASE OF VESICAL CALCULUS.

By JOHN A. WYETH, M.D.,

NEW YORK.

A GENTLEMAN, aged 53, a native of Bermuda, was sent me by my friend Dr. John H. Arton, practising in that island. Several years ago he had suffered from renal colic, and a few days afterwards had passed by the urethra two small stones, about one-quarter of an inch each in diameter. These I found to be phosphates. In 1876 symptoms of vesical irritation appeared, which increased until, in November, 1878, he was forced to seek relief by an operation. Upon sounding him, a stone was detected, not in the fundus, but seemingly caught in a pocket just behind the pubic symphysis, well above the urethral opening of the bladder. Its size could not be accurately estimated by the sound, owing to its being touched on only one side. After consulting with my friends, Prof. F. H. Hamilton and Dr. E. A. Banks, after a preparatory course of treatment for ten days, it was determined to attempt lithotrity under ether, and, this failing or being deemed impracticable, to resort to lithotrity. With the assistance of these gentlemen, and of Drs. Russel, Irquhart, Wardwell, and Wilkinson, I introduced a Thompson's lithotrite, and, after the most patient and persistent effort, it was found impossible to engage the stone in the jaws of the instrument. Upon sweeping the floor of the bladder with the convex surface of the lithotrite, the stone could not be felt; but, by depressing the handle well towards the coccyx, the tip of closed blades could be felt to strike the calculus, which was rough; but, although the bladder contained about five ounces of water, and the blades were carefully separated to as much as two inches, and were felt grating against the stone, it could not be firmly engaged between them. There was left the *dernier ressort* of cutting.

* *Vide* N. Y. Medical Journal, Dec., 1878, p. 621.

and the median operation was performed. Upon introducing the finger to dilate the prostatic urethra, the stone was discovered well up behind the pubis, caught in a vesical pouch, in which it was crushed by the large forceps, and the pieces were scraped out with considerable difficulty. This part of the procedure, owing to the large size of the stone, and immense number of fragments, was so tedious that, before it could be completed, owing to threatened collapse on the part of the patient, it was discontinued temporarily. He rallied quite well in the course of ten or twelve hours, passed his urine through the wound and urethra simultaneously, and, in addition, through the wound, some small pieces of stone. Three days later, the temperature being only 100° F., and condition otherwise good, the wound was enlarged laterally, under an anæsthetic, and the remaining fragments removed, the bladder thoroughly washed, and a large drainage-tube left in the bladder. Putting the pieces together, the calculus measured two inches in diameter, and was almost round—the fragments, which were preserved, weighing 624 grains (troy). The patient vomited while the effects of the ether were passing off, and this gastric intolerance continued to such an extent that no aliment could be retained in the stomach. Enemata were regularly given every few hours, and fifteen grains of quinine hypodermically each day, and, although the temperature at no time reached more than 101½, the patient died of exhaustion due to gastric intolerance, eight days after the last operation. The wound was doing nicely, the drainage was free and uninterrupted, and there was no symptom of pyæmia or peritonitis, and no complaint of suffering other than the extreme nausea. An autopsy was not obtained. An ante-mortem examination of the urine showed no signs of renal disease.

Reports of Hospitals.

THROAT CLINIC AT CHARITY HOSPITAL, B. I.

SERVICE OF DR. ELSBERG.

(Reported by C. C. RICE, M.D., Resident Physician

I.

THE LARYNX IN CASES OF LEPROSY (ELEPHANTIASIS GRÆCORUM).

VERY few laryngoscopical examinations of leprous patients have hitherto been reported. Indeed, in this country, the disease itself is so rarely met with that every contribution to its statistics is of some value.

CASE I.—Emilio Treñal, æt. 19; single; native of Santiago, Cuba; admitted to hospital June 21, 1878. The patient is a bright, intelligent boy. He knows very little about his parents, as they died when he was quite young. He lived in Cuba until he was nine years of age, and has been in New York since. Nothing definite as regards hereditary taint could be learned. He thinks his mother had white spots on her face, similar to the cicatrices on his own body, but never heard that she had leprosy. She died of cholera. His father died of yellow fever. He never saw any one suffering from this disease until the admission of the other patient (Case II.) in July, 1878. His general health has always been good. He describes very accurately premonitory symptoms, which he experienced four years ago; they correspond to those spoken of by Duhring,* such as malaise, sleepiness, headache, chills and fever, and pains in bones. These continued with varying intensity for a year before he noticed any manifestation of the disease. First, two red spots, and then, on the same places, hard, brownish red lumps showed themselves on his left cheek near the nose, and the neighboring tissue became somewhat indurated. The disease seems to have made but very little progress for two years. In June, 1876, he had an acute attack of rheumatism, and was admitted to Charity Hospital as a patient. He was told at this time by the visiting physician that he had leprosy. He received some medication, and the tubers decreased in size, leaving brownish white cicatrices. In July, 1877, new indications of the disease appeared. The lower portions of the forehead became hard and brawny; a little later the surface was raised into tuberous masses. These tuberosities range in size from that of a cent to that of a silver dollar. They are hard and involve the skin, which cannot be moved above the mass. Some of them seem to be an aggregation of smaller ones, but as a rule they are arranged singly. Their outline is quite well defined, and they are surrounded by healthy tissues. His eyebrows came out. His hair, which was formerly black, turned to a dingy brown. The eruption gradually spread over the lower portion of the face, involving especially the nose, lips, chin, and cheeks. The ears were only slightly affected. The overhanging eyebrows, the large nose studded with tuberous excrescences, and the cheeks and chin thrown into rough and uneven appearing ridges, all help to give the patient the peculiar expression of the face called "leontiasis." There is nothing on the body but a few white scars, which were formerly dark maculæ. The forearms and legs have become much darker, and are covered with brawny scales, which desquamate constantly. There are only three points of ulceration on the body, two on the calf of the right leg and one on the inner side of the left thigh. These are not at all painful, and there seems to be more or less anæsthesia of the upper and lower extremities, though he thinks his face is rather more sensitive than in health. During the last year he has noticed a gradual change in his voice. He has always been fond of music, and sang a high tenor; now he speaks in a peculiarly husky or muffled tone, and, when he attempts to reach a high note or sing softly, he finds that he is not able to make any sound. He is obliged to constantly clear his throat, and he suffers a little from dyspnœa after exertion. He has no difficulty in deglutition, but in drinking water he is relieved by pressing on his thyroid cartilage. When examined with the laryngoscope by Dr. Elsberg, it was found that the air-passages have undergone changes similar to those on the face. All the portions of the mouth and throat rich in loose connective and adipose tissues are more or less involved, while, where the mucous membrane is attached more closely to the harder structures beneath, it is intact. The tongue is large, swollen, and fissured, but there are no ulcerations The uvula is long, and the surface made uneven by the presence of several small tubers. With the exception of some hyperæmia and hyper-secretion, there are no pathological changes on either the hard or soft palate or the pharynx. The laryngoscope revealed a large, thick, congested epiglottis (Fig. 1.) Its free margin had lost its symmetry, and seemed to be carried backward over the larynx by the weight of the tuberous masses, which

* A Practical Treatise on Diseases of the Skin, by Louis A. Duhring, M.D., Philadelphia, 1877, page 132.

covered it so that only its lingual surface could be seen. Such masses were on each side of the frenum and extended forward toward the tongue. Only the arytenoid cartilages and parts of the vocal bands appeared in the mirror when the epiglottis was slightly raised during forced inspiration. To see all the parts required a number of views and various manœuvres. The upper aperture of the larynx has become irregular

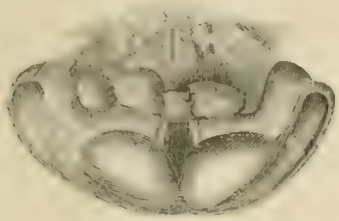


Fig. 1.

and altogether smaller. The ary-epiglottic folds are tumefied and studded sparingly with small tubers. The ventricular folds present the same swollen and congested appearance, with a number of tuberosities, and partially cover the vocal bands, so that during phonation only the inner edges of the latter can be seen. These are white and glistening. The mucous membrane covering the arytenoid cartilages is greatly swollen and dark-red in color. Two tubers of somewhat larger size are on the right arytenoid and one on the left. The parts move sluggishly during phonation. The mucous membrane of the larynx and surrounding parts hypersecretes. The patient's general health is fair; he suffers considerably from mental anxiety. His appetite is good. He has no pulmonary or cardiac trouble, and the kidneys seem to be in a normal condition.

Case II.—Abraham Brown, aged forty-five; native of New York; bricklayer; admitted July 5, 1878.

His family history is excellent. Nothing of importance, or that relates in any way to his present disease, can be stated of patient up to his thirty-second year. His habits were good, and he worked in New York at his trade as a mason until of that age. He then went to Santiago, Cuba, and remained three years. He returned to New York, and has lived there since. Like Trenal, he never had seen a case of leprosy until he came to the hospital. He noticed nothing in regard to himself until one month before the eruption appeared on his face. The prodromata in this case were somewhat similar to the other. He also had frequent chills, and was considerably troubled with drowsiness and languor; but these were not severe enough to prevent his working. In March, 1878, the face became covered with tubers, and now presents a more characteristic appearance of the disease than the other case. The lumps are somewhat larger than those upon Trenal's face, but their physical character is very similar. The eyebrows are quite prominent, and give to the patient a very savage appearance. The nose, chin, and lips are like Trenal's, but the lobubes of the ears are very much enlarged, and hang down like immense ear-rings. The whole face has become much darker. The body for the most part has preserved its integrity. The legs and arms are brownish-red, and covered with fine scales. The disease has gone on to ulceration on the fingers and toes. Hands and feet are swollen, the two last phalanges covered with bad-looking sores, which discharge very little, and are only slightly painful. The nails have almost entirely disappeared, except those upon the great toes, and they are already loose and will soon be gone. The mouth and pharynx have not escaped. The tongue is so thick that the patient speaks like a drunken man, and saliva dribbles from his mouth. The gums are red and somewhat swollen, but there is no ulceration; the tonsils seem to be very slightly affected. The palato-glossal and palato-pharyngeal folds have been ulcerated through and become adherent in several places. The inner side of the cheeks and posterior wall of the pharynx are dotted with small papillary excrescences; there is one large ulcer on the hard palate. The patient has ozœnic catarrh, and although the pituitary membrane seems to be injected, none of the tuberosities are apparent in either the nasal organ or pharyngo-nasal space. The epiglottis is considerably tumefied, its free edge thick and irregular, with angular lateral boundaries. (Fig. 2.) It hangs heavily back over the larynx, and seems to have lost its elasticity. The ary-epiglottic folds and the ventricular bands are enlarged, congested, and uneven, covered with a few large and many smaller tubers. The lumps partially hide and give to the arytenoid cartilages an ill-defined and shapeless appearance. The posterior halves of the vocal bands are masked beneath this new growth.

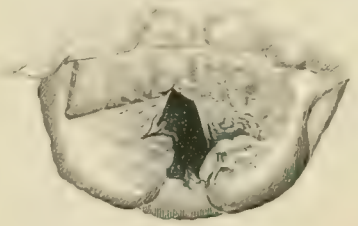


Fig. 2.

Two large lumps are seen, the one anterior and the other posterior to the left arytenoid, on its inner side. The right arytenoid, although involved throughout its whole extent, has no tuberosities which rise above the general level and which are sharply defined. There is less swelling about the anterior half of the rima glottidis, and the vocal bands can be seen to approach each other during phonation. They are of a dirty yellow color. In the inter-arytenoid space one large tuber stands out prominently into the larynx.

The general condition of the patient is not as favorable as that of Trenal.

The accompanying drawings were made by Dr. H. Levy, Assistant House-Physician.

Professor Elsberg made some additional remarks on laryngeal leprosy. He said that the systemic cachexia which constitutes the disease, as manifested in the skin, nerves, etc., as well as on mucous membranes, is not sufficiently understood to enable us to speak positively as to its nature.

"Lepra arabum" and "elephantiasis græcorum" are equivalent designations for leprosy, but "elephantiasis arabum" and "lepra græcorum," though sometimes confounded, are names for two diseases differing from each other and from leprosy. Elephantiasis arabum is a hypertrophy of the skin and subcutaneous (sometimes also submucous) connective tissue, while lepra græcorum is a scaly skin disease, a variety of psoriasis.

The laryngeal disease occurs in all, or nearly all, cases of leprosy. It appears secondarily in time to the cutaneous, although occasionally the latter is for a time so slight, in comparison with the affection of the

mouth, throat, and larynx, that this assumes prominence. At the present day, leprosy occurs almost exclusively in certain countries, chiefly tropical, or in persons who have visited or resided for a longer or shorter time in such countries.

Topographical circumstances have most to do with the affection. Although its cause is shrouded in mystery, climatic agencies, including noxious soil, environment, habitation, food, and other local (endemic) or personal unhygienic influences are recognized as producing the disease. Hereditary predisposition exerts considerable effect; but it is not contagious.

The three types or forms recognized in the skin affection—*lepra maculosa*, spotted leprosy, *lepra tuberosa*, lumpy leprosy, and *lepra anæsthetica seu mutilans*, anæsthetic or mutilating leprosy—usually occur as stages merely in the laryngeal disease. The first pathological change noticeable is vascular injection; the vessels become very visible, the veins are varicose, then, on spots ordinarily small, but sometimes large, the epithelium is found lost, and in places more or less deep infiltration occurs; hypersecretion is present in almost every case. The infiltrated masses may be seen to be covered with a thick layer of epithelium, of which they are easily deprived, and which is as easily regenerated. These lumps, though at first sometimes very firm, have a decided inclination to ulceration; but the destructive process does not usually involve more deep-seated structures. Form-changes of various parts of the larynx occur from the infiltration, later from ulceration, and then from cicatrization. The lumen of the upper aperture is almost always interfered with, and, in the progress of the case, stenosis, possibly sometimes to a dangerous and fatal extent, is sure to take place.

By the aid of the laryngoscope, it is usually easy to determine whether and to what extent the larynx is affected in a case of leprosy. At first, dilated blood-vessels are seen on the epiglottis, with a peculiar reddish-yellow appearance of the interior of the larynx; then, frequently, gray or dirty discoloration of the vocal bands; and later on, with increased vascularization, the lumps and ulcers. The latter are readily distinguished, from their peculiar appearance and localization, from laryngeal carcinomatous granulations and ulcerations. The diseases which produce similar appearances are lupus, syphilis, and phthisis. The clinical history, and especially the cutaneous and other manifestations generally, make a differential diagnosis between these and laryngeal leprosy a matter of no great difficulty. The intense vascular injection is absent in phthisis, and Dr. Elsberg prefers to avoid the term tubercle, which has come to be identified with phthisis, when designating the lumps or tubers of leprosy.

The peculiarly husky voice of lepers was well known in the Middle Ages,* and constituted an important sign in the *inspectio leprosorum*. Dyspnœa also occurs in the course of the disease, but cough and pain in the region of the larynx very seldom; there is more or less anæsthesia, and the introduction of instruments produces no reaction. Deglutition is sometimes affected; but this, too, is comparatively slight and disproportionate to the destruction that may take place in the upper part of the larynx and the lower portion of the pharynx. The prognosis of laryngeal leprosy is always unfavorable. The voice cannot be restored, even though life may not be destroyed by the disease of the larynx.

* Says HANS VON GERSDORF, in his *Feldbuch der Wundarztney*, 1526: "Das erst zeychen ist die heyssere in der stymm und red, ungedes otems."—VIRCHOW'S *Die Krankhaften Geschwülste*, Vol ii., p. 519.

In addition to the other therapeutic and particularly hygienic measures to be adopted in the case of leprous patients, the condition of the larynx requires cleansing spray and soothing local inhalations. A diluted emulsion of gurjun oil (balsam dipterocarpi) has of late years been praised very highly as a local as well as internal remedy in leprosy. Applications of saturated solution of iodoform in sulphuric ether have proved grateful. To prevent death from laryngeal stenosis, tracheotomy should be performed, but it has not been called for in any case within Dr. Elsberg's knowledge.

Progress of Medical Science.

MEMBRANOUS CROUP AND DIPHTHERIA.—At a recent meeting of the Royal Medical and Chirurgical Society, Dr. Andrews presented the report of the committee appointed to examine into the relations existing between these two diseases. The following are the conclusions arrived at: 1. Membranous inflammation confined to or chiefly affecting the larynx or trachea may arise from a variety of causes, as follows: (*a*), from the diphtheritic contagion; (*b*), by means of foul water, of foul air, or other agents, such as are commonly concerned in the generation or transmission of zymotic diseases; (*c*), as an accompaniment of measles, scarlatina, or typhoid, independently of any ascertainable exposure to the especial diphtheritic infection; (*d*), it is stated, on apparently conclusive evidence, that membranous inflammation of the larynx and trachea may be produced by various accidental sources of irritation—the inhalation of hot water or steam, the contact of acids, the pressure of a foreign body in the larynx, and a cut throat. 2. There is evidence in cases which have fallen under the observation of members of the committee, that membranous affections of the larynx and trachea have shortly followed exposure to cold, but their knowledge of the individual cases is not sufficient to exclude the possible intervention or coexistence of other causes. The majority of cases of croupal symptoms directly traceable to cold appear to be of the nature of laryngeal catarrh. 3. Membranous inflammation, chiefly of the larynx and trachea, to which the name "membranous croup" would commonly be applied, may be imparted by an influence, epidemic or of other sort, which in other persons has produced pharyngeal diphtheria. 4. And, conversely, a person suffering with the membranous affection, chiefly of the air-passages, such as would commonly be termed membranous croup, may communicate to another a membranous condition, limited to the pharynx and tonsils, which will be commonly regarded as diphtheritic. It will thus be seen that, in the opinion of the committee, these two diseases are identical. It is suggested that the term "croup" be henceforth used wholly as a clinical definition, implying laryngeal obstruction, occurring with febrile symptoms in children, which may be membranous or not membranous, due to diphtheria or not so. The term "diphtheria" is the anatomical definition of a zymotic disease, which may or may not be attended with croup. It is admitted, however, that when obviously occurring from a zymotic cause or distinct infection, and primarily affecting the pharynx, constitutional depression is more marked, and albuminuria is more often and more largely present, though in both conditions some albumen in the urine is more frequently present than ab-

sent. That this position taken by the committee will not be unchallenged may be inferred from the editorial remarks of the *Medical Press and Circular*, which, in commenting upon the report, says: "If 'croup' and 'diphtheria' can be shown to be mutually communicable, to arise from one and the same cause, and to be attended, in many instances, with the same constitutional symptoms, then, and then only must the old distinction between these diseases fall to the ground. But with regard to this point the report of the committee is not so clear as might be desired."—*Medical Press and Circular.*

In connection with this subject, particular interest is attached to the investigations into the pathogeny of diphtheria, conducted by Drs. Edward Curtis and Thomas E. Satterthwaite, in pursuance of a resolution of the Board of Health of this city. The question proposed for solution by these investigators was *the nature of the infective principle of diphtheria, and the circumstances that determine the infection.* Experiments were made upon rabbits by inoculations of the diphtheritic membrane, at first upon the cornea, and afterwards into the muscular tissue of the thighs. The first method was not followed by definite results, but by the second a fatal disease was induced, which many investigators have deemed identical with diphtheria in man, but which these researches have shown to be essentially dissimilar. The results of these investigations may be summed up as follows: "I. Inoculation of diphtheritic membrane into the muscular tissue of the rabbit produces severe local lesions, and even constitutional disturbances and death. But these effects differ so in their pathology and clinical history from diphtheria in the human subject that there is no warrant for defining them as diphtheria, or for applying conclusions drawn from this inoculation disease in the rabbit to the case of diphtheria in man. II. Effects exactly similar to the foregoing and of equal severity can, moreover, be produced by inoculation of a material not only non-diphtheritic, but non-infectious to the human subject under conditions where the diphtheritic membrane *is* infectious; *i. e.*, when brought into contact with the mucous membrane of the mouth and throat. The material referred to is the pulpy scraping of the upper surface of the healthy human tongue. III. Effects generally similar to the foregoing, though not of equal intensity, can furthermore be produced by inoculation of a putrescent matter which is not even of immediate animal origin—namely, Cohn's fluid—allowed to spontaneously decompose (Cohn's fluid is an aqueous solution of ammoniac tartrate, potassic and calcic phosphates, and magnesic sulphate. IV. The foregoing inoculation effects are not due to simple mechanical irritation, for inoculations of sand produce no effect whatever. V. Thorough filtration of a proven virulent aqueous infusion of diphtheritic membrane or of putrid Cohn's fluid removes the infectious property of the same. Hence, in such diphtheritic infusion the poisonous quality probably inheres in some *particulate* thing, from which it is not separable by the action of cold water. VI. Thorough trituration of proven virulent diphtheritic membrane and tongue-scrapings with a high percentage of salicylic acid fails not only to remove, but even markedly to modify the intensity of the infectious quality of those substances. Hence, since salicylic acid, in even a minute percentage, is capable of permanently suspending the vital activity of bacteria, the inference is that the infectious quality of the diphtheritic membrane upon the system of the rabbit is not correlated to the vital activity of the bacteria present in such membrane. VII. If, as is not improbable, the noxious principle in diphtheritic membrane, which produces in rabbits the effects described, be the same with or even analogous to the principle which produces diphtheria in man by direct infection, then the conclusion of VI. will apply to the infectious quality of such membrane in its relation to the reproduction of diphtheria in the human subject. If this be the case, it follows, as an important practical corollary, that *there is no theoretical ground for assuming that preventing the bacteria of a diphtheritic patch from making their way through the underlying mucous membrane will, per se, prevent general diphtheritic infection of the system.* VIII. There is no relation between inoculable virulence of a diphtheritic membrane and the period, within three days, that has elapsed between the detachment of the membrane and the inoculation of the same, nor between inoculable virulence and gross amount of bacteria present in the membrane. IX. There is a rough relation between inoculable virulence of a diphtheritic membrane and the severity of the original case of diphtheria, so far as this can be estimated by the termination of the case in death or recovery. These nine propositions are not put forth as *proven*, but merely as the results of the experiments and observations, as far as the latter go, stated in abstract form. Before the propositions can be considered proved as truths, a large number of corroborative experiments will have to be made."—*Report of Investigations into the Pathogeny of Diphtheria*, 1878.

Adenoma of the Uterus.—Prof. C. Schroeder reports two cases of adenoma diffusum uteri and two of adenoma polyposum, all of which were cured by operation. The two former were treated by scraping with the sharp curette, followed by injections of the perchloride of iron. Microscopical examination of the pieces scraped off revealed thickened uterine mucous membrane, enclosing closely packed and enlarged uterine follicles. In one of the cases of adenoma polyposum the tumor was found in the vagina; it was as large as a child's head, and was attached by a long pedicle to the body of the uterus. It was removed by the wire écraseur. On microscopical examination, it was found to consist of uterine glands, many of which had developed into large cysts, and of connective tissue rich in nuclei; the pedicle, which spread out like a tree in the interior of the tumor, was composed of connective tissue and smooth muscular fibres. In the other case, the microscopical structure was the same, except that none of the follicles had developed into cysts.

Prof. Schroeder states that a characteristic feature of the vegetations of the uterine mucosa—called also endometritis fungosa by Olshausen—is that the cervical canal is greatly dilated, while the os internum, on the contrary, is closed. The adenoma polyposum has as yet been but little studied, but it cannot be regarded as a pure product of the uterine mucous membrane. It is a peculiar fact that the adenoma polyposum has as yet only been met with in elderly women who never were pregnant, while the adenoma diffusum has been met with both in nullipara and in multipara.—*Allg. Med. Cent. Zeit.*, No. 47, 1878.

Hamburg Tea.—℞. Senna leaves, 8 parts; manna, 4 parts; coriander, 1 part. Mix. *A Correspondent in "New Remedies."*

Vulvar Pruritus.—℞. Ol. cadi, f ʒ j.; amyli glycerit., f ʒ j. M. Apply. This is highly recommended by M. Marius Key in *Gaz. Méd. de Paris.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 4, 1879.

HOSPITAL PATIENTS WHO CAN PAY.

THE discussion bearing upon the contemplated experiment at St. Thomas's Hospital, London, in regard to "patients who can pay," is bringing many matters to light connected with hospital management there which have a striking correspondence with the abuses in our own systems of medical charity. There, as here, the poor are not the only ones ministered to, but fully one-third of the aggregate number of so-called pauper patients are able to maintain themselves outside, and pay a small fee for medical services besides. These belong to a class of patients who would hesitate to ask charity from any other source, and yet would not be backward in using any means for securing free attendance in hospital. The *Lancet* very truly says: "Employees in receipt of good salaries, members of the families of well-to-do tradesmen, and even those of higher station, do not scruple to abuse the charity of these institutions, and evade the payment of just fees to medical men. More particularly is this the case in regard to special maladies, when the pitiful excuse of being unable to pay for the 'best advice' is adopted to disguise meanness and dishonesty." While it is fair to suppose that this abuse of medical charity would be carried to an extreme where there are no means to check it, as for instance, in hospitals which have no provisions for pay patients, it is equally reasonable to inquire whether the establishment of such a department in the St. Thomas's Hospital will entirely remedy the difficulty. Although it may do so in a measure, it will not do so absolutely. Patients who can afford to pay good fees to outside practitioners will constantly present themselves as ordinary pay patients to such an hospital, and as long as the superintendent and managers are satisfied with the amount offered for board and lodging, no questions will, as a rule, be asked as to outside pecuniary capability of the applicants. As far as the managers are concerned, this is a pure business arrangement to make the institution pay as a boarding-house. The benefit of a doubt as to the ability to pay for medical services extra is always given to the patient who is ready to pay his board-bill. It is said that any misunderstanding between the managers of the hospital and the medical staff regarding this point will be satisfactorily anticipated by a scrutinizing inquiry into the worthiness of the patient's application. Without showing any want of faith in the good intentions of the managers, or any want of appreciation of the innocence of the staff, we are, nevertheless, very much interested to see how the promise can be fulfilled.

But if, contrary to the general experience in this city, we allow thus much to be possible, there is still a chance for abuse in the admission, at a nominal board fee, of good paying patients, whose cases are from a medical point of view interesting ones. The temptation on the part of the hospital staff to treat such patients, entirely irrespective of any fee, is too strong to be generally resisted. Perhaps the only exception to the rule is the ordinary college professor, who so uniformly refuses all such cases when they present themselves at his clinic, and who takes such pains to refer them back to their family physician. Whoever knew a clinical teacher to forget the claims of the profession by prescribing for well-to-do patients simply because clinical material was scarce, or merely for the reason that such cases were sometimes interesting? If the same practice would only hold good at the hospitals, it would be easy for the ordinary practitioner to protect himself against the robbery of his patients, and to prevent even interesting cases from receiving free treatment in such institutions. We are compelled to say, however, that despite the best intentions on the part of hospital managers, and a most earnest desire on the part of the medical staff to protect the interests of the general practitioner, occasionally an interesting case finds admittance, occasionally a good-paying patient is lost to some family physician, and occasionally the patient himself will make the profession feel under obligations to him for the splendid opportunity of studying his case. But every one in or out of the hospital knows that this is such an exception with patients of the paying class, that it is unworthy of serious consideration in connection with the present abuse of the pay system in hospital management here, or of the abuses of the prospective system in London.

A SANITARY INSPECTION OF OUR PUBLIC SCHOOLS.

So much has been said in these columns of the want of sanitary regulation in our public schools, that we feel almost like apologizing to our readers for referring to the subject once more. We are so firmly impressed, however, with a duty we owe to the public in general, and the school children in particular, that we cannot omit an opportunity of repeating an old story in the

hope that it may be heard at last, and that its moral will be taken to heart. The school children cannot speak for themselves, the teachers dare not, and the Board of Education, which is omnipotent in school matters in this city, says that the sanitary condition of the schools is perfect. This latter assertion would appear to settle the question, but unfortunately it does not, as the fact of frequent inspections abundantly prove.

For years the Board of Education has refused every reasonable appeal to remedy defects in ventilation, in heating, in lighting the buildings, and in caring for the water-closets outside. The only answer that has been vouchsafed to such requests has been that the schools are in good enough condition, and that no change is necessary. Several members of the Board have, by virtue of the emergency, created themselves authorities in sanitary matters, and there has been a dead-lock to any impartial investigation of the real merits of the question. When we consider that the Board is managed in the interests of a political ring, and that it is quite necessary that the ignorance, neglect of duty, and stupidity of said Board should not be brought to light, the outlook towards reform is quite unpromising. We are encouraged, however, in seeing that a new and powerful element is at work to bring about a change in the management of the affairs of the Board. The *Herald* has caused an inspection to be made of the school buildings, and has recently published a lengthy report upon the subject. No one can read this report, the authenticity and impartiality of which cannot be questioned, without being startled by the disclosures. Only a few of the schools were visited by the inspector, and these were principally primary departments. The latter are invariably upon the ground floor. The rooms are dark, ill-ventilated, crowded, exposed to drafts of cold air on one side and intolerable heat on the other; and are in close proximity to water-closets, which, by the negligence of janitors, are kept in an abominably filthy condition.

Perhaps we cannot serve our present purpose better than by making a few extracts from the report. In Grammar School No. 18 the infants in the lower seats of the gallery class are "literally roasted," while those on the upper benches "are shivering from the cold draughts pouring directly on their heads and shoulders from the lowered sashes." In another room of the same school "the heating is so defective that upon examination the temperature was found to vary from sixty-five degrees to over seventy-five degrees. No general record is taken. The children are packed as closely as possible in these rooms. As to the floor and air-space, as required by the provisions of the by-laws of the Board of Education, no attention whatever is paid, the reason given being that it is impossible under the present packing system."

Although Grammar School No. 69 is a new building, having been only opened in the latter part of 1876, we learn that "the children in the gallery classes are in the same condition as in the other schools—are dangerously close to the radiators on the one side, and exposed to the draughts from the open windows on the other. The thermometer in this department seems to be at a discount, as no record whatever is taken of the temperature." Also the "urinals are constructed of wood, being plain wooden troughs, without lining or cover. No means have been taken to prevent the foul odors and poisonous emanations from entering the adjacent class-rooms."

In Grammar School No. 32, in the class-room on the ground floor, adjacent to the water-closets, the air was intolerable, and as a mere coincidence, of course, "several of the pupils were absent on the sick list."

The closets in Grammar School No. 33 were in the same condition as the last schools visited. "In one of the rooms the day before this visit the temperature was as low as 56°. The record of temperature in this school is not kept, as the Principal thought it useless to do so under the present circumstances."

Grammar School No. 70, in Seventy-fifth Street, like all of the preceding, is badly lighted; the staircase, which is of wood, is entirely enclosed, and is extremely dangerous in case of fire; ventilation in some rooms amounts to almost nothing, as all the fresh (?) air attainable is through the hallways, it being necessary to close the windows to keep out the foul odors of the water-closets. The playground is reported to allow not over "one square foot of ground-space for each pupil attending."

But it is useless to rehearse the results of this inspection; suffice it to say that they repeat themselves to a greater or less degree in all the schools visited. Some of the class-rooms are so dark as to compel the lighting of the gas throughout the greater portion of the day.

These facts are not by any means new to us, neither will they be to any one who has given any attention to public school hygiene in this city, but it is a matter of congratulation that they have been presented to the general public in a manner which may invite the attention of the Board and cause it to reconsider its oft-declared assertion that the sanitary condition of the schools is good. Is it not time, in any event, to demand such a change in the administration of the Board as will do away with its stupid opposition to what every one else believes to be reasonable and necessary sanitary reforms? In the Board, as at present constituted, there is no hope for any change. Is it then worth while to change the Board? This may be a question which public opinion may ask the new mayor to answer.

REPRESENTATION IN THE STATE MEDICAL SOCIETY.

A GLANCE over the Transactions for 1878, of the Medical Society of the State of New York, brings to light some interesting, not to say curious, facts.

We find first that in the State there are sixty counties, all of which, except Hamilton, have county medical societies, the total membership of which numbers 3,238. New York County has the most members (710), and Putnam the least (14). The different societies are, according to a law passed in 1855, entitled to send representatives to the State Society, the number of delegates being equal to the number of assembly districts in the several counties at the time the law was passed. All of the county societies, with the exception of Putnam, have elected delegates in accordance with this law. Comparing the number of delegates with the total county society membership, we find that the ratio is about 1 to 25. In the practical application of the law, however, notable deviations from this ratio are constantly met with, and in some counties more delegates are elected than in others which have a larger society membership, as will be seen from the following examples: Thirty-one counties whose membership varies from 15 (Rockland) to 58 (Queens), send one delegate each. Thirteen counties whose membership varies from 26 (Columbia) to 42 (Niagara), have two delegates each. Steuben, with 50 members, and Jefferson with 68, have also two delegates each.

Seven counties with memberships from 38 (Saratoga) to 118 (Monroe), have three delegates each. Oneida and Albany Counties, with respective memberships of 94 and 133, have four delegates each, and Erie County, membership 123, has five delegates. Lastly, Kings (278 members) and New York (710 members), have respectively 9 and 21 delegates.

Broome (56 members) and Queens (58 members) have but one delegate each, while fourteen counties with smaller memberships have two delegates each, and two counties, also with smaller memberships, have three delegates each. Queens and St. Lawrence have each 58 members, but the former is entitled to but one delegate, while the latter has three. The greatest contrast, however, is between Queens and Saratoga. The former with 58 members and one delegate, and the latter with 38 members and three delegates. New York County also suffers in comparison with many other counties, for if the average proportion (1 in 25) were preserved, it would have 28 instead of 21 delegates, as at present.

We commend these facts to the attention of those interested in the medical politics of the State.

Treatment of Idiocy by Trepanning the Skull.—Dr. Fuller, of Montreal, removed with the trephine a portion of the skull of an idiot child two years of age, with a view to permit the expansion of the brain, and as a consequence, the development of the faculties. After the operation, paralysis of the arm with general coldness of the extremities set in, but disappeared after a time. The mental condition of the child has improved in a very marked degree since the operation, and, encouraged by this result, Dr. Fuller intends soon to remove another circle of bone.

Reviews and Notices of Books.

The Principles and Practice of Surgery, Being a Treatise on Surgical Diseases and Injuries. By D. Hayes Agnew, M.D., LL.D., Prof. Surgery in Med. Dept. University of Pennsylvania. Profusely Illustrated. In two volumes. Vol. I., 8vo, pp. 1,062. Philadelphia: J. B. Lippincott & Co. 1878.

A new work on surgery, at a time when there are so many excellent treatises upon the subject, gives rise to one of two thoughts in the mind of the reviewer. Either the author wishes to make a book merely after a particular plan, perhaps, and without originality, or he feels it his duty to present to the profession the results of his experience, and stamp the work with his individuality. How far either or both of these reasons may apply to the present case we shall see as we proceed.

To begin with, its scope is very extended. As this first volume contains over one thousand pages, and is devoted merely to the consideration of the following general subjects: "Diagnosis," "Inflammation," "Wounds," "Injuries of the Head," "Injuries of the Chest and Abdomen," "Wounds of the Extremities," "Diseases of the Abdomen," "Diseases and Injuries of the Blood-vessels," "Ligation of Arteries," "Surgical Dressings" (including bandaging), and "Injuries and Diseases of the Osseous System" (not including dislocations), we can readily infer that volume number two will not be smaller than the present, by the consideration of what remains to be executed, more especially as Dr. Agnew does not intend to omit diseases, injuries, and operations upon the eyes.

The arrangement of the general subjects is eminently systematic and practical, and embraces: 1. Name of Injury or Disease; 2. Anatomical Considerations; 3. Varieties; 4. Ætiology; 5. Pathology; 6. Symptoms; 7. Diagnosis; 8. Prognosis; 9. Treatment; 10. Complications and Treatment; 11. Sequelæ and Treatment. This order is the rule, to which there are some exceptions.

The author's style, though clear, is rather prolix. While we highly commend his minuteness of detail, we must certainly admit that nothing would have been lost, but much gained, by greater conciseness. Especially is this latter remark applicable to the historical details. Nor have we any great love for, nor can we see any special utility in, the introduction of so much that is statistical in such works. We allude particularly to the sixty-six pages of tables on fractures. A plain statement of the author's conclusions would have been far preferable, and would have saved much valuable space.

The introduction, "Surgical Diagnosis," is an excellent article.

Chapter I., "Inflammation," its nature, varieties, terminations, treatment, results and their treatment, opens the book proper. A more lucid exposition of the present views upon the pathology of inflammation we have not had the pleasure of reading. Our author describes its phenomena as due to: 1. "Disturbed nerve-action; 2. Disorder of the blood-vessels and their contents; 3. Passage of the contents of blood-vessels through their walls; and 4. Change in the perivascular tissues of the inflamed parts."

After the pleasure we experienced in the reading of what preceded, we were greatly disappointed to learn that our author is no milk-and-water advocate of general blood-letting or calomel as means of overcoming or limiting inflammation. The very admission of *dis-*

turbed nerve-action, which means a *diminution*, and *not* an *increase*, of nervous vitality, is a refutation of the soundness of the practice which employs most powerful nervous and general debilitants. The clue to the author's reason for their employment may be gained from his interpretation of the phenomena of inflammation (p. 55): "The more carefully we analyze and compare the phenomena of normal nutrition and inflammation, the more we are disposed to formulate them into a single compact statement, and conclude that inflammation is *hypernutrition*, carried on under such an extravagant plenum of supply that the germination and mutation of cell-life are generally too hurried to mature, and are therefore unstable and short-lived." *Change the italicized word* to *hypo*-nutrition and the erroneous view immediately disappears; the former says, "put a stop to so much *activity*," whilst the latter says, "tone up the *diminished* vitality."

The various forms of suppuration and ulceration are well treated, and require no special mention. Then come the different kinds of mortification, including hospital gangrene, eight pages being devoted to its history. Hemorrhage and its treatment, the treatment of wounds in all their varieties (including glanders, farcy, malignant pustule, hydrophobia, wounds of snakes, etc., and gunshot wounds) form the subject-matter for Chap. II. This division is excellent in its general and detailed descriptions, and is well and profusely illustrated. Lister's antiseptic plan is described. The "Surgical History of the War of the Rebellion" has been used to excellent advantage on the subject of gunshot wounds.

Chap. III.—"Injuries of the Head" is quite full upon fractures of the skull, concussion and compression of the brain, gunshot and arrow wounds of the head, fungus cerebri, and trephining. The various wounds of the face, salivary fistula, necrosis of the facial bones, excision of nerves in facial neuralgia, and wounds of the neck are also found in this division of the book. Wounds of the chest and contents, and abdomen and its organs, are lucidly treated in Chap. IV., as are also wounds of the bladder, anus, and rectum. The management of artificial anus from a fæcal fistula is also described. Chap. V. treats of "Wounds of the Extremities," and Chap. VI. of "Diseases of the Abdomen." The article on intestinal obstructions needs a greater detail of the symptoms and diagnosis, as well as a more positive and clear indication of the line of treatment to be pursued in special cases. Strangely enough, the author makes no allusion to complete posterior or antero-posterior rectotomy for the relief of rectal stricture. Bougies and the dangerous resort to divulsion, with or without multiple nicks, are alone mentioned. We are surprised at this omission. Fifty-five pages are devoted to the consideration of herniæ. Although unnecessarily prolix, and in spite of some very bad woodcuts, the author has given us a very good and valuable article upon this subject. We are especially glad to see that he questions the justifiability of operations for "radical cure." The differential diagnosis of herniæ is very clearly made.

Under the head of "Diseases and Injuries of the Blood-vessels," the veins are thoroughly well considered and then the arteries. Aneurism is treated of in a masterly manner—its etiology, pathology, complications, diagnosis, and treatment. We are especially well pleased with the fulness and detail of its diagnosis, being arranged as a differential schema. The author should have detailed, instead of merely mentioning, Balfour's plan of treatment by rest and potassium iodide. The reader would be at a loss to prescribe the proper doses of the salt, since no mention thereof is made in the text, nor is there any foot-reference where the details of the plan may be found. Otherwise the article on treatment is very satisfactory and complete, occupying eighteen and a half pages. Then follows a description of the symptomatology, diagnosis, prognosis, and treatment of special aneurisms.

We call special attention again to the excellence of the differential diagnosis described under each head; in this respect this work is in advance of many of its predecessors, and possesses a purely individual excellence.

Chap. VIII. is devoted to the "Ligation of Arteries." First, the surgical anatomy is given; then the point or points of election are pointed out; finally, the operation is described. This same plan is pursued for each artery. The illustrations in this portion of the book are simply execrable—so exceedingly bad that the author owes his readers an apology for their appearance.

Surgical dressings, including all the various kinds of bandages, are described and well illustrated in Chap. IX.

The last chapter is devoted to fractures and diseases of the bones. Eight pages are allotted to the description of the "repair of fractured bones," and a very excellent exposition it is. The rules for the general treatment of these injuries are judicious. The author's conclusions from his sixty-six pages of tables on pseudarthrosis must receive the support of all practical surgeons. The diagnosis and treatment of fractures are given at length, and no reader can find any fault on the ground that a paucity of apparatus or plans for treatment exists. The author plainly indicates his preferences, but describes all other good methods of the day, gives detailed explanations of the mode of applying the various apparatus, and does not omit certain historical data.

He prefers the weight and pulley (Buck's) apparatus for the treatment of fractures of the femur. We have no hesitation in stating our decided preference for that dressing. We are glad to note: "I do not hesitate to say that a fracture in the shaft of the thigh-bone which is cured with one-half or three-quarters of an inch shortening is a good cure, and gives no room for complaint on the part of the patient; and that the surgeon who obtains this result may walk among his professional brethren without being conscious of the least inferiority or want of skill in the management of this class of surgical injury." We protest against the indiscriminate employment of Dupuytren's apparatus in the treatment of Pott's fracture—the only treatment mentioned by our author—in the face of the fact that the plaster-of-Paris is immeasurably superior. The illustrations in this chapter are valuable in the elucidation of the text; they are profuse, but a few of them are quite bad, as figs. 574, 686, 741, 748; nor has the engraver been very happy in his delineation of figs. 757, 776, and 809, although the defect is of little moment.

The remaining articles of this work—periostitis, ostitis, caries, endostitis, osteomyelitis, sclerosis and necrosis of bone, rachitis, osteomalacia, fragilitas ossium, hypertrophy and atrophy of bones—are worked up and illustrated in a thoroughly satisfactory manner. Nineteen pages of "index" complete this volume. The strong points of the author are diagnosis and treatment. Pathology is unravelled to an extent sufficient to elucidate treatment. Each operation is described as it is alluded to (as a rule), which is an ad-

mirable arrangement for the student in particular. While we think that one smaller and less expensive volume, giving the personal observations and views of the author, would, under existing circumstances, have been preferable, we can nevertheless recommend Dr. Agnew's work on its general and individual merits.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Nov. 21, 1878.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

THE HISTORY OF SIX CASES OF ABDOMINAL PREGNANCY.

DR. T. GAILLARD THOMAS made a valuable contribution to obstetric surgery by a report of the history of six cases of abdominal pregnancy. Five cases were operated upon, and the patients recovered; the sixth case was still under observation. His experience in extra-uterine pregnancy extended to fifteen cases. Of those seven were tubal, two were interstitial, and six were abdominal pregnancy. For the physiologist and the pathologist many varieties of extra-uterine pregnancy existed, but for the general practitioner at the bedside all the varieties could be placed under three heads: 1. Tubal; 2. Interstitial; and 3. Abdominal.

By rational and physical signs those varieties could be distinguished from each other, and in certain cases the propriety of surgical interference could be based upon the conclusions reached.

The events of abdominal pregnancy were the following:

1. The fœtus thus unnaturally attached might die in the early months of its life, become encysted, and in time be cast off through the rectum, through the bladder, or through the abdominal walls.

2. The pregnancy might advance to the end of the ninth month, when nature would make a persistent effort to expel the child, but, on account of absence of any way of exit, would fail. The fœtus would then be retained, become encysted, and perhaps remain for years.

3. The child, shut up in its unopened shell, might act as a foreign body and give rise to suppurative action, and in that way develop hectic from absorption of septic material. All those events were illustrated by the cases related.

CASE I.—*Abdominal Pregnancy—Death of Fœtus early in Gestation—Discharge through the Rectum, with Recovery of Mother.*

This case occurred in the practice of Dr. H. F. Walker, of New York.

CASE II.—*Abdominal Pregnancy—Death of Fœtus in early Gestation—Discharge through the Rectum, with Recovery of the Mother.*

This case was almost an exact counterpart of the first, and occurred in the practice of Dr. Olcott, of Brooklyn.

Diagnosis of abdominal pregnancy was based upon the following data:

1. All the rational signs of normal pregnancy existed.

2. The uterus, though enlarged, was smaller than it would have been had utero-gestation existed at the time the examination was made.

3. The uterus was lifted up and pushed forward by a soft elastic tumor, which gave none of the evidences of being a hematocele or an ovarian cyst.

4. The uterus did not present the appearance of being occupied by the products of conception when examined by the sound.

CASE III.—*Abdominal Pregnancy—Laparotomy Performed at the End of the Eleventh Month of Gestation, with Recovery of the Mother.*

This case occurred in the practice of Dr. Hadden, of New York.

The uterine cavity measured three and a half inches in length.

The cyst was tapped, and a fluid removed which closely resembled the fluid from an ovarian cyst. It was submitted to an eminent microscopist for examination, who reported that it contained corpuscles which he believed to be ovarian. The diagnosis of abdominal pregnancy was based upon the following data:

1. The existence of nausea and vomiting during the early months of the patient's illness. Those gave place to

2. Distinct fœtal movements.

3. The presence of pigmentary deposit in the linea alba and in the areola of the breasts.

4. The presence of a large but empty uterus, without evidences of inflammation.

5. The existence of a large solid body, which rolled about freely in the cavity of the abdomen.

When the operation for the removal of the fœtus was performed the placenta could not be seen; but in the light of his experience in a case of tubal pregnancy, in which he removed the placenta, and the patient's life was nearly sacrificed by hemorrhage, and the additional fact that a slight scratch of the peritoneum in the present case gave rise to troublesome hemorrhage, Dr. Thomas decided to let the placenta remain undisturbed. A drainage tube was placed in the lower extremity of the abdominal incision. The child was a female, and weighed seven pounds. The funis at one point was surrounded several times by a long hair, which cut off all circulation, and in that manner destroyed the life of the child. The patient did very well until about the fourteenth day, when she had a slight chill, that was followed by a rise of temperature to 104 F.°, and septicæmia seemed imminent. A clot was removed from the abdominal cavity; the cavity was washed out thoroughly and regularly by means of antiseptic injections, and the case again progressed favorably. Five weeks after the operation a small portion of the placenta was found protruding from the abdominal opening, and by careful manipulation the entire placenta was removed.

The following points in the case were regarded as specially important:

1. Had positive diagnosis not been made before the operation, and the procedure commenced as for ovariotomy, the immensely hypertrophied peritoneum would doubtless have been so wounded that the case would have terminated fatally by hemorrhage.

2. Had an effort been made to remove the placenta, disastrous consequences would probably have ensued.

3. Had the abdominal wound been allowed to close by first intention, an imprisoned and fœtid placenta would have led to a fatal issue.

CASE IV.—*Abdominal Pregnancy—Laparotomy at the End of Seventeen Months, with Recovery of the Mother.*

In this case the fluid removed by tapping was submitted to microscopical examination, was found to

contain the ovarian corpuscle, and was believed by the examiner to be unquestionably fluid from an ovarian cyst.

A well-developed girl, weighing nine pounds, was removed at the operation. The cord was twisted upon itself in such a manner as to arrest circulation and cause the death of the fœtus. The placenta was attached to the bladder and the anterior abdominal wall. It was left undisturbed, and the abdominal incision was closed in such a manner as to leave an opening for its escape. The patient rallied well from the operation, and for some time the case progressed favorably. The pulse and temperature were carefully recorded by Dr. Van Voorst, House-Surgeon at the Woman's Hospital, and from his report the following abstract was read:

Three hours after the operation the pulse was 108, and the temperature 99° F.

Twenty-four hours later the pulse was 108, and the temperature 101° F.

At the same hour on the following day the pulse was 103, and the temperature 99¾° F.

At 8.30 A.M. of the same day, the pulse was 120, and the temperature 102½° F.

At 12 noon, the temperature was 103½° F., and at 6 P.M. 102¾° F.

At 8.15 A.M. the following day, the temperature was 103° F. The patient was taken with vomiting.

At 12 M., the following day, the temperature was 103¾° F., and at 3 P.M. the same.

At 3.30 P.M., the abdominal cavity having been washed out with a solution of carbolic acid, the temperature was 100½° F.

At 7. P.M. of the same day the temperature was 103° F., and at 8 P.M. the cavity was again washed out.

At 10 P.M. the temperature was 102⅘° F. The carbolized injection was repeated.

At 11.15. P.M. the temperature was 101½° F.

The case thus progressed, the temperature rising to 102 and 103 or more, and almost invariably falling after each antiseptic injection.

From time to time portions of the placenta were discharged as the cavity was washed out, and finally the patient was permitted to return to her home, with a small, hard portion of the placenta still remaining attached to the abdominal wall. She was able to continue the injections herself. The placenta was finally entirely discharged, and a complete recovery made. The case illustrated the great value of antiseptic injections.

CASE V.—*Abdominal Pregnancy of Twenty-two Months' Standing—Fœtus delivered by Laparotomy, with Recovery of the Mother.*

The case occurred in the practice of Dr. Coates, of Connecticut, and had been published in full in the volume of Transactions of the Connecticut State Medical Society. The operation was performed at the Woman's Hospital. The tissues were severely lacerated by forcible removal of many of the bones.

Special attention was directed to the point that hereafter, in a similar case, instead of tearing the bones out, he would remove those only which could be easily taken away; then, leaving the abdominal wound open, he would keep up antiseptic injections, and await their spontaneous discharge.

CASE VI.—*Abdominal Pregnancy now advanced four Months, and under Observation.*

The patient was a woman thirty years of age, and under the immediate care of Dr. Franklin, of New York.

The diagnosis of abdominal pregnancy was based upon the following conditions:

1. The existence of all the ordinary signs of pregnancy.

2. The existence of a painful tumor behind the uterus.

3. The expulsion of deciduous membrane without abortion.

4. Displacement of the uterus by a tumor, which gave none of the evidences of hematocele, ovarian cyst, or fibroid tumor.

In watching the case Dr. Thomas was governed by the principles, that although he had successfully operated in the cases related, he had not resorted to operative interference without good reason to believe that delay would be dangerous. Operative procedure should be delayed until nature pointed to the channel of extrusion which she selected.

In the case under observation the tumor seemed to be burrowing downward, and that tendency might make it possible to remove the fœtus through the vagina in the event that surgical interference became necessary.

Commenting upon the cases, Dr. Thomas remarked that, if they were reported simply as six cases of abdominal pregnancy, they would lead to erroneous conclusions, for surely it might be inferred from the results that extra-uterine pregnancy had been bereft of its old-time dangers. But the cases were not so reported.

Of the remaining *nine* cases of extra-uterine pregnancies, two were interstitial. Of these one died, and one recovered only after passing through a most dangerous surgical interference. The remaining seven were cases of tubal pregnancy. Of those six died, and one survived only after submitting to a capital operation, which of itself might have destroyed the patient's life.

With reference to the time for surgical interference in cases of abdominal pregnancy, it was often wise to allow the process to continue until the time of full development of the child and await the efforts of nature.

But suppose it was pretty certain that the woman was carrying a dead child, was it wise to resort at once to surgical interference? In answering the question the following facts were to be taken into consideration: one danger attending operative interference was hemorrhage. The longer the placenta was allowed to remain, the more certain was it to undergo such changes as rendered hemorrhage less liable to occur when operative interference became necessary. Another danger was septicæmia. The more thoroughly the fœtal envelopments became atrophied, the less the danger from that complication.

No fixed rule applicable to all cases could be given. The following were given as general rules to guide us in the management of cases of abdominal pregnancy:

1. Before full term, if the child was alive, its growth might be carefully watched with the hope of being able, at the end of the ninth month, to deliver by the operation of laparotomy a living child, and also of saving the life of the mother.

2. Should the child die early in abdominal pregnancy, delay was advisable, but it should not be carried to the development of hectic and septicæmia.

3. At full term it was doubtless the best rule to await the evidence of constitutional disturbance, and then to meet its development promptly by operative interference.

The paper being before the Academy for discussion,

Dr. W. T. Lusk remarked that the success obtained in the cases reported was most astonishing. It would seem from all statistics which had been furnished that to wait was the proper course to pursue, but Dr. Thomas had resorted to surgical interference when it seemed necessary, and all must agree that, from the results obtained, a serious revision of our views upon the subject must be made.

Dr. Lusk referred to the fact noted by Dr. Thomas, and also by Spiegelberg at about the same time, namely, that the sac became attached to the abdominal walls so that when the incision was made it entered the sac directly.

It did not always happen, however, that such attachment took place, so that the opening was directly into the sac, and reference was made to a case illustrating that point. The patient finally recovered from the operation, but only after a long period of suppuration and an attack of septicæmia. She died soon after of phthisis.

With reference to cases in which the child was living at the time the operation was performed, there had been reported eight cases in which living children had been delivered, and the lives of four of the mothers were also saved.

Dr. Lusk also thought there was no question but that one of Dr. Thomas's cases would have terminated fatally had it not been for the most efficient after-treatment and the benefits which the patient derived from his large experience in ovariotomy.

Dr. Fordyce Barker remarked that one of the most important points alluded to by the author of the paper was the results of the surgical operation. They were such as rendered all rules with regard to these cases more or less doubtful at the present time. There were two points in the method of procedure which were to overturn the value of preceding statistics with reference to operative interference in cases of abdominal pregnancy.

One was, leaving the placenta *in situ* after the operation. It was generally accepted at the present time, by the most advanced men, that the safety of the patient depended greatly upon the fact of leaving the placenta undisturbed.

The second point was the great value of the subsequent antiseptic treatment.

Those two points were sufficient of themselves to change entirely the future results of this operation, consequently we might say that past statistics were at the present time really of but little value as a guide to the management of this class of cases.

To the conclusions reached by Dr. Thomas, Dr. Barker gave his hearty concurrence. To be sure, many cases were seen which terminated satisfactorily by the efforts of nature; but that fact did not in the least invalidate the value of surgical interference.

The advancement which had been made in surgery and in the after-treatment of important operations was such as enabled us to obtain results which would not even have been dreamed of years ago. To the cases referred to by Dr. Lusk, Dr. Barker added four, already reported, in which the life of the mother was saved by surgical interference.

Reference was then made to two cases of abdominal pregnancy occurring in his own practice, which were cured by nature, the fœtus being discharged through an opening in the abdominal walls in the left iliac region.

A third case was referred to, which had been diagnosticated by several eminent surgeons of the city as cancer of the rectum. It proved to be a case of abdominal pregnancy, with an opening into the rectum through which the fœtal bones were discharged. A recto-vaginal fistula was also formed in the same case.

Further reference was made to a case, reported several years ago at the Medical Society of the State of New York, by Dr. Parkhurst, of Herkimer, in which the fœtus was carried fifty years, and then removed at post-mortem examination.

In conclusion, Dr. Barker expressed his firm belief that the success which would be obtained hereafter by adherence to two principles, namely, leaving the placenta undisturbed and adopting a judicious antiseptic treatment, would entirely revolutionize the statistics which had been published upon the question of operation in cases of abdominal pregnancy.

Reference was made by Dr. Sell and Dr. Mundé to a case which occurred in the service of Dr. Brown, in one of the Vienna hospitals.

The Academy then adjourned.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, December 2, 1878.

Dr. J. C. Shaw, President, in the Chair.

CERVICAL PACHYMENINGITIS

Dr. V. P. Gibney read a brief paper, in which he reported two cases of cervical pachymeningitis. The following is an abstract of the histories:

Case I.—*Pachymeningitis Cervicalis Hypertrophica occurring in a Lad—Cervical Paraplegia, with General Paralysis almost Complete—Case still under Observation and Progressing Favorably.*

The patient, a boy æt. 10½ years, was admitted to the Hospital for the Ruptured and Crippled, August 22, 1878. His family history was exceptionally good. He had been considered a delicate child until he was eighteen months old. From that time until one year prior to his admission to the hospital he had enjoyed fair health and was free from any paralysis or deformity. In August, 1877, he was pushed against a pile of lumber, striking his back in the lower spinal region. It was not a severe injury; he complained very little, and his mother was unable to find any bruise. The immediate effect passed off within twenty-four hours, and nothing was complained of or observed until the January following, when he had a paroxysm of shooting pains in the back. For a period of two weeks the paroxysms were frequent, and were most severe at night. Relief then came, and he seemed perfectly well until the beginning of June, 1878. Without known provocation, he then began to bend his neck forward in walking and complained of pain post-cervical. In the month of July considerable pain and tenderness, associated with a peculiarity in his walk were observed, and there was also a moderate degree of skoliosis. There was also a cervico-dorsal prominence, though slight and uniform. There was no angular deformity. When admitted to the hospital in August the following symptoms were recorded: a stooped position, the head deflected forward more than twenty degrees from the vertical bearing, a moderate dorsal skoliosis and an unusual degree of care in walking or sitting. There was no angular prominence at any portion of the spinal column, no tenderness on pressure over the spinous processes—though that had been a prominent sign—and no tenderness on concussion.

On percussion over the posterior wall of the pharynx the patient complained of pain, yet no tumefac-

tions or bony irregularity could be discovered in that region. Motion in the upper cervical region was normal, but was limited in the lower cervical and the upper dorsal.

No reliable signs of a spondylitis or of a spondylarthrocacia could be detected. The thorax presented some rachitic changes anteriorly. A head-support was applied, and with that the deformity was nearly overcome. Cod-liver oil and a tonic were prescribed.

During the following month he did very well. In the month of October the head showed a great disposition to fall forward; the head-support became irksome; the patient slept poorly considerable of the time, and the pain and tenderness in the cervico-dorsal region increased. He took to his bed; his chin, in the lateral decubitus, rested upon the sternum. He could not be induced to change his position, and, if left undisturbed, made no complaint. He had vomiting, and the tongue was heavily coated. Ergot, iodide of potassium, and vesication, were the special medicinal measures employed. On the *first* of November there was a decided improvement; but on the fourth he was again worse, and on the 11th there was loss of power absolute in the arms, and partial in the forearm and hands, and there was almost entire loss of power in the lower extremities. The reflexes were exaggerated. Anæsthesia on posterior surface of thighs well marked. Pulse, 120; respiration, 20; temperature, 99½ F.

Nov. 14th. Exaggeration of reflex abnormality of sensibility remained. The limbs frequently jerked on the slightest provocation, and assistance was required to restore them to the desired position. Urine drawn by catheter. Pulse, 112; respiration, 26; temperature, 100¾° F. No appreciable atrophy had occurred. All the muscles acted well to medium Faradic current. The electro-sensibility was perceptibly diminished.

Nov. 17th. Has moved the right arm since yesterday. As the forearms were in pronation the hands exhibited a typical approximation to the *main-en-griffe* of Charcot and Joffroy.

Nov. 20th. Urine had specific gravity of 1012, faintly acid, and contained flaky deposits and phosphates. Temperature, 100½° F., the highest yet reached.

Nov. 21st. Decubitus dorsal, with lower extremities extended, a position he had not been able to assume since his confinement to bed. Was able to raise both arms from his side to a right angle and to extend the the forearm completely.

Nov. 25th. Epileptiform tremors in legs were marked. He could flex the left thigh with considerable force.

Nov. 28th. Was able to sit up all day, and to use his left arm in feeding himself.

Nov. 29th. Incontinence of urine and of fæces. Electrical responses as good as they were one week ago.

Dec. 2d. No incontinence of either urine or fæces during last two days. Pupils for the first time dilated. Fundus of the eye normal. Sensation in the thighs returning. Ergot and iodide of potassium had entered largely into the treatment. Commenting upon the case, Dr. Gibney thought we were left to accept one of these conditions in making a diagnosis:

1. Was it a spondylitis? The absence of any exostotic growths either on the bodies of the vertebræ anteriorly or on the processes, the history of the disease, and the kind of paralysis, in his opinion, excluded spondylitis.

2. Was it spondylarthrocacia, or Pott's disease of the spine? The history of a fall without evidence of external violence would suggest very forcibly vertebral disease. Still, within twenty-four hours all tenderness and immediate effects of the fall had subsided, and he was perfectly well and free from deformity for *three months*. The fall was charitably considered as an improbable factor in the etiology of the disease present. It was to be remembered that the first real signs of the disease began in January, 1878, when colds were very prevalent, and, in the absence of any known exciting cause, it was assumed on circumstantial evidence that he contracted a cold, and that the effects of the cold were confined to the cervical spine. The shooting pains about the head and neck were paroxysmal and severe; they lasted about two weeks, and the patient was relieved. Then for five months he seemed perfectly well. Vertebral caries did not act in that manner.

Again, when the torticollis appeared, the deflection of the head was forward, and not backward, as was the rule in torticollis from vertebral disease. Since he had been under the doctor's observation, over three months, tenderness on pressure over the spinous processes had been nearly continuous. As a *rule*, to which there were but few exceptions, that sign was not present in spinal caries. Furthermore, extension and support of the head were intolerable. On those grounds Pott's disease was excluded.

3. Was it a case of pachymeningitis cervicalis hypertrophica? From the symptomatology as described by Charcot and Joffroy, from the exclusion of the two diseases mentioned, and from the kind of paralysis—that which belonged to spinal compression, Dr. Gibney arrived at that diagnosis. The case as yet was not complicated with any notable cord-lesions. There was no surety, however, that such lesions would not follow sooner or later, but it was hoped that the iodide of potassium would save the patient from their development.

CASE II.—*Pachymeningitis Cervicalis Hemorrhagica—Partial Recovery.*

The patient was a girl æt. 17 years, and of German parentage. Family history unreliable. The history of the case was that, in September, 1874, she went to bed in good health, slept well, but about half an hour after rising on the following morning, and while at work, she felt a sharp, sudden pain all over the "front walls of her chest," and moderate pain in her back. The pain passed off in about a minute. She had no vomiting, and probably no fever. Shortly after she tried to sew, but found it impossible. At about that time she experienced a numbish sensation in the arms and the forearms, and creeping down the body and lower extremities. She attempted to drink her coffee, but the cup fell from her hands. She tried to walk, but failed in the attempt. By noon she had complete paralysis of all four limbs, and suffered from severe pains in her thighs. She was carried to the German Hospital, and had to be fed for three months, during which time she was unable to sit up or to walk. Her urine was drawn with catheter, and the bowels moved involuntarily. She had bed-sores. She remained in the hospital thirteen months, and within that time there was considerable improvement, so that she could use her extremities, and the incontinence ceased. August 20, 1877, when she came under Dr. Gibney's observation, he found no evidence of disease in the thorax, the teeth were in good condition, the tongue and uvula normal, hearing good, and fundus of the eye normal, and no trouble with the urinary organs. Menstruated twice when sixteen years old, but never since. General health

good. No spinal tenderness or kyphosis or skoliosis. There was neither paralysis nor atrophy of the lower extremities. The right arm was normal, but the forearm was somewhat smaller than the left. There was complete atrophy of the thenar and the hypothenar eminences, and the hand and the wrist presented the classical *main-en-griffe*. A detailed account was then given of the reactions obtained by the use of the Faradic and the galvanic currents.

Dr. Gibney believed that the suddenness of the onset of the attack and the result were so characteristic of meningeal lesions as to leave no room for difficulty in diagnosis. As to the cause of the hemorrhage, he had no means of knowing, and in a girl of that age it was a matter of speculation.

The paper being open for discussion,

Dr. E. C. Seguin remarked that the cases reported, he thought Dr. Gibney would admit, were characterized by a certain degree of acuteness in their development, which was rather against the course of chronic pachymeningitis cervicalis.

He thought that the first case was open to a *fourth* supposition in diagnosis, and that was common meningo-myelitis. The development of that disease was frequently subacute, and there was a combination of symptoms, such as irritative neuralgic pains in the spine, and perhaps in other parts of the body, and sometimes involvement of the spinal cord.

With reference to the second case, there could be an expression of stronger doubt as to its being one of pachymeningitis, even of the hemorrhagic variety, for the dura mater was a tissue which was not liable to hemorrhagic infarctions. With but few exceptions pachymeningitis hemorrhagica, whether cerebral or cervical, was in the first place a pachymeningitis which gave rise to certain symptoms, and was followed by a clot in the newly-formed tissue.

Another objection was the well-defined paroxysmal symptoms without the occurrence of spasmodic symptoms so frequently accompanying the escape of blood between the arachnoid and the dura mater. If there was an escape of blood into the healthy dura, it was difficult to say why it should be localized, and not extend up and down. As to the pathological condition which might give rise to the symptoms of the second case, Dr. Seguin suggested hemorrhage into the gray matter of the cord. Another possible explanation would be acute red softening of the spinal cord. That was an exceedingly rare lesion, but he had seen one case, and in that instance the diagnosis of hemorrhage into the spinal cord had been made.

His main reluctance to accepting the diagnosis given by Dr. Gibney was the acute and subacute course of the two cases.

Dr. Gibney remarked that he excluded meningo-myelitis because there was no elevation of temperature whatever. As to the suddenness of the invasion, it was to be remembered that in the first case the patient suffered from an attack some eight or nine months prior to the appearance of the paralysis, which lasted for only two or three weeks, and then there was an apparent recovery. Following that were other attacks, which were accompanied by pains for three or four months, which agreed well with the painful stage of the disease as described by Charcot and Joffroy.

With reference to the second case, the diagnosis was based upon the tremors present three or four years subsequent to the sudden attack, the contractures, the position of the hand, and the method of invasion. He thought there was hemorrhage into the dura mater, and that it probably involved the cord itself.

Dr. Seguin remarked that the symptom *main-en-griffe* did not necessarily indicate the existence of pachymeningitis cervicalis. It was simply an expression of paralysis of muscles supplied by certain nerves, without reference to the situation of the lesion.

TREATMENT OF CHRONIC TRIGEMINAL NEURALGIA.

Dr. E. C. Seguin reported three cases of chronic trigeminal neuralgia which were cured by medicinal treatment (see p. 6).

The paper being before the Society for discussion,

Dr. Grey inquired whether any member had tried the galvanic current in the treatment of trigeminal neuralgia. He referred to a case reported by Niemeyer, in which cure was effected by the use of the galvanic current after all other known means had failed; and also to a case under his own care, in which violent neuralgia of the thigh was relieved by the same means and under like circumstances.

Dr. Kinnicutt remarked that he had employed the galvanic current in the treatment of acute cases of trigeminal neuralgia, and that relief had been afforded, but it was only temporary.

Dr. Seguin remarked that the galvanic current was a measure which should be used more than it was, but there were practical difficulties which to a very great extent rendered it unavailable. It was rare that the physician could spare the necessary time, or the patient meet the necessary expense, attending that method of treatment.

Dr. Spitzka remarked that heretofore, in cases of trigeminal neuralgia, when he had not been able to discover indications for treatment arising from reflex causes, or central disease, or constitutional phases, he had told his patients that he could do nothing for them whatever; but, from the results obtained in the cases reported, he should be encouraged to adopt the plan recommended by Dr. Seguin. He then asked the following questions:

1. What were the indications for the use of aconitia in the treatment of cases of trigeminal neuralgia?

2. Why was the term epileptiform used in connection with one of the cases reported?

3. Should not the diplopia, the unequal pupils, the loss of memory in one case, be regarded as symptoms pointing to some general central disease?

With reference to his own experience in the use of aconitia in other painful affections, pushing the remedy until its physiological effects were produced had seemed to be a rather dangerous procedure in some patients.

In one case he had pushed the remedy so that it simply produced a slight tingling, and had not strong measures been resorted to the case would have terminated fatally.

Dr. Seguin in reply stated:

1. That he knew of no special condition which indicated the use of the aconitia.

2. He used the term epileptiform because it best described the suddenness with which the attacks came on.

3. He did not believe the patient referred to had any central disease, for he had tested him in every direction with the view to such discovery, and had found nothing.

With reference to impairment of memory, it could reasonably be expected that the memory of a man, who for ten years had suffered untold agony, might be affected.

The contracted pupil was upon the same side with the pain, and was due probably to simple irritation of the trigeminus.

The diplopia was present only while the patient was taking medicine.

Dr. Kinnicutt remarked that he was induced to use ergot in the treatment of one case of trigeminal neuralgia of eight years' standing, because the nitrite of amyl always produced bad effects. The result obtained by the use of the ergot, given in doses of one drachm and a half of the aqueous extract in the course of twenty-four hours, had been favorable.

Dr. G. M. Beard remarked that the conclusions arrived at by the author of the paper harmonized with his own convictions regarding the use of powerful remedies and pushing them until marked physiological effects were produced. The idea was old, it was true, and there had also been a reaction against it which had been carried too far. The principle was illustrated in the treatment of syphilis and other diseases in which the best results were obtained by producing the physiological effects of powerful drugs.

With regard to the use of electricity in the treatment of the disease under consideration, judging from his own experience, the prognosis certainly was very bad, while in the treatment of ordinary rigeminal neuralgia the prognosis was very good. He had no recollection of ever having cured a case of epileptiform neuralgia by the use of electricity. He had not been able to confirm the German case referred to, and regarded the result obtained there as an exception, the like of which might not be seen in a thousand years to come. Such was not the fact, however, with reference to ordinary trigeminal neuralgia.

Dr. Beard thought all would agree that neuralgia was only a symptom, and that when twenty cases were treated, we might in reality be treating twenty different diseases. Therefore it was not safe to generalize with reference to the action of any special remedy.

With reference to the use of gelseminum, his custom was to begin with doses of from three to five drops, and gradually increase. If no idiosyncrasy was discovered, he ceased to fear the ill effects of the remedy, and did not hesitate to push its administration to full doses.

Dr. Seguin wished to record his favorable experience in the use of phosphorus in the treatment of ordinary trigeminal neuralgia. He had obtained more satisfactory results from its use than from the use of gelseminum.

Dr. Grey remarked that he had been made aware of the danger of pushing powerful remedies until they produced their full physiological effects, and referred to cases of chorea in which he had seen dangerous symptoms produced by the use of arsenic.

Dr. Shaw shared in the opinion that pushing remedies until they produced full physiological effects was the true method for obtaining the most satisfactory results in the treatment of many diseases.

Dr. McBride directed attention to the importance of determining that no cardiac disease was present in cases which were to be treated by the use of aconitia.

The Society then adjourned.

Iron which Will not Rust. Prof. Barff has discovered that if iron be subjected to the action of steam having a temperature of 1500° F., it is covered by an incorrodible coating of the magnetic oxide, giving the finished article a dull-black appearance, susceptible of a slight polish. Salt or fresh water, vegetable acids, and all other ordinary oxidizing agents have no effect on the iron prepared by Barff's process. It should be called "Barff's iron," after the inventor.

New Instruments.

A CONVENIENT INHALER.

Dr. J. O. Roe, of Rochester, N. Y., has devised a convenient and inexpensive inhaler, which promises to give very general satisfaction.

The apparatus is made of Japanned tin, and, as will be readily seen, consists of a lower portion or receptacle for the hot water and medicated solution, and an upper portion or cover. The lower portion is simply a large cup holding about a quart, with a head or mark to indicate the proper amount of fluid to be used. The cover is essentially an inverted cup fitting inside of the lower and extending about two-thirds to the bottom, with a flange around the base which fits the edge of the other. The portion of the cover above the upper border of the cup tapers sufficiently to admit the attachment of a flexible tube, which may be of any required length, with a simple mouth-piece at the extremity for inhaling. The double-valve mouth-piece and the thermometer of Mackenzie are dispensed with, as they are ordinarily quite unnecessary and render the inhaler more complicated and costly. In the flange of the cover, and also near the edge of the rim, numerous small holes are punctured for the passage of air.

Roe's Inhaler.

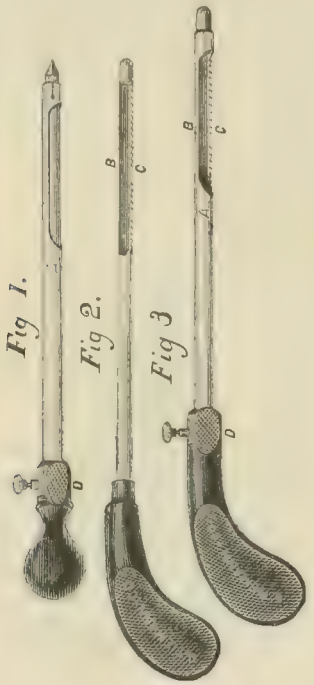
The inhaler is used as follows: The cover (*A*) is removed and the cup filled with hot water (from 160° F. to nearly the boiling point, as required) up to the head or mark (*C*) on the side of the cup; the medicine or medicated solution to be inhaled is then put in, and the cover replaced, when the inhaler is ready for use. On inhaling, the air is drawn or exhausted from the cavity or air-chamber in the upper portion of the cover above the fluid rushing in again through the openings in the flange at (*D*) and drawn through the corresponding openings in the rim at (*E*) and up through the solution, as shown by the direction of the arrows, breaking up into fine bubbles on the surface and passing on to be inhaled, carrying the medicated steam with it. The apparatus is manufactured by Geo. Tiemann & Co., N. Y.

A NEW SUBCUTANEOUS SAW, KNIFE, AND BONE RASP.

By GEORGE F. SHRADY, M.D.

A short time ago, having occasion to operate upon a case of ununited fracture of the tibia and fibula, I felt the want of a subcutaneous saw and rasp which would bare and roughen the ends of the fragments at the same time there would be no danger of injuring the soft parts. I accordingly devised this instrument, which was made for me by Mr. Stohlmann, of the firm of Geo. Tiemann & Co. It could not, however, be finished in time for use in the case for which it was designed; in fact, it is just now completed. This statement is perhaps necessary to explain why I have not, as yet, made a trial of it in a similar case or in any other of the many operations which may come within the range of its adaptability. I believe, however, that there can be no doubt of its perfect working and of its extended usefulness, and accordingly offer it to the profession.

As will be seen by the cuts, the instrument consists of a trocar, fenestrated canula (Fig. 1), and a



staff (Fig. 2), with handle and blunt extremity. A portion of this staff at a short distance from the extremity is flattened, one edge (B) being made into a knife-blade, and the other edge (C) being provided with saw-teeth. This staff (Fig. 2) is intended to replace the trocar in the canula after the latter is introduced. When in position (Fig. 3) either the saw (C) or the knife (B) edge of the shaft, according to the way the latter is turned, corresponds with the opening in the canula. The saw or knife can then be worked to and fro within the canula by a piston-like movement, the canula being steadied by grasping the flange (D) at its base. If it be necessary to work the instrument as an ordinary blunt-pointed sheathed saw or knife, the shaft can be fixed in the canula and made into one piece by a thumb-screw in the handle. The portion of the canula at the back of the opening is made extra strong and is of the same thickness as the blade, so that in sawing there is no stoppage to the passage of the instrument through any thickness of bone. At the risk of prematurely bespeaking its usefulness, I am willing to believe that the instrument can be employed in any operation where it is necessary to use a saw, rasp, or knife upon any bone, or other tissue, under the skin, and through a small opening. In ununited fracture the ends of the bones may be perforated with the trocar, may be roughened by the saw or rasped by the knife. Subcutaneous osteotomy may be performed by it, as for instance, Adams' operation for anchylosis of the hip, Ogston's operation for genu-valgum, Marsh's operation for "bow-legs," the various excisions, and also operations upon the jaws, upper and lower,—in fact upon any bone the surface or edge of which can be reached by a trocar. The soft parts are protected from injury, no matter which way the instrument may be worked. The saw-blade is blunt at its extremity, and is guarded on all sides except on its limited cutting surface. The same may be said of the knife. The working of the saw to and fro in the canula is sufficient in sweep to insure the division of any bone having a diameter less than the length of the cutting edge. Still, as this process is much slower than when the saw is used in the ordinary way, it is perhaps better to restrict its employment to operations on the smaller bones, to cramped localities, and to situations where there is special danger of wounding some neighboring vessels. All that is necessary in using this saw is to thrust the trocar and canula into the limb, the fenestra of the canula being alongside of the bone upon which the operation is to be performed. The trocar is then withdrawn, the staff introduced in its place (Fig. 3) and worked as already described. The instrument is made of different sizes, to suit the different purposes for which it may be employed.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 22 to December 28, 1878.

Tilton, H. R., Major and Surgeon. Par. 5, S. O. 245, A. G. O., Nov. 12, 1878, granting him an extension of his leave of absence for two months, is amended to grant said extension on surgeon's certificate of disability. S. O. 274, A. G. O., Dec. 21, 1878.

Kinsman, J. H., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 104, Div. of the Atlantic, Dec. 23, 1878.

Medical Items and News.

Vaccination in the Public Schools.—Since the commencement of the present school year, eight thousand eight hundred and twenty-seven vaccinations have been made by the Health Board upon the children of the public schools.

Yellow-Fever Fund.—Among the earliest subscriptions to this fund was the handsome sum of one hundred dollars from Messrs. Wm. Wood & Co., medical book publishers of this city. Dr. Thomas L. Neal, of Dayton, Ohio, writes: "There is a small fund unexpended here from the Yellow-Fever Relief Committee, which the Treasurer informs me can be allowed to go to the relief of the widows and orphans of deceased physicians. Dr. Minor, of Cincinnati, promises to try and secure any remaining fund there may be at that place."

Original Lectures.

AVOIDANCE OF PAIN IN THE DRESSING OF SURGICAL CASES. HYPERDISTENTION OF ABSCESSES.

BEING REMARKS BY

GEO. W. CALLENDER, F.R.S.,

SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, LONDON.

Delivered at the Bellevue Hospital Medical College, N. Y., Jan. 1, 1879.

(Phonographically reported for THE MEDICAL RECORD.)

(Mr. Callender, having been invited by Dr. Lewis A. Sayre to occupy his lecture hour, and having been appropriately introduced, spoke as follows:)

GENTLEMEN:—I cannot but be pleased by the too flattering manner in which you have received me. I came here to mark, to listen, and to learn; but perhaps, as I am now present with you, and as the old saying has it, "the looker-on often sees most of the sport," I may perhaps venture to offer some remarks upon two or three points which have attracted my attention during the brief time I have been among you.

And first, in reference to your hospitals. Those that I have seen have all been well and efficiently managed, and their general excellence seems to me beyond all praise. I have noticed with satisfaction the great care exhibited on all sides for the welfare of the patient. I cannot express myself too strongly respecting your clinical teaching, which, so far as my experience goes—and you must know that I have visited all the great centres of medical learning in Europe—is unsurpassed anywhere. And then there is another point which interests me, and it is this: that, as I hope I may safely say it is in my own country, so I am sure it is in this, that the well-being of the patient is the first consideration. The interest shown in this direction by the united and harmonious efforts of the visiting staff, the house staff, and the nurses, stand out as a great and shining light. I am glad to find the surgeons here are not cramped by any preconceived view or prejudiced by any treatment, but are willing to try any plan or method, and to be influenced entirely by the results obtained under their own observations.

If I may be permitted to detain you a few moments, I think I may say modern surgeons have quite come to this point respecting all of their cases—I allude more particularly to surgical cases and operations—that patients may be expected to convalesce as a matter of certainty; and, as far as life is concerned, the results are invariably good. But there is another point which, apart from saving life, more particularly interests me, and to which I have been giving attention of late, and that is, patients should convalesce with certainty; but not only this, but so convalesce without an ache or a pain. I think I may venture to say that even so serious a case as the amputation of any one of the members may be conducted, from first to last, without causing the patient any pain. You may think I dwell too much upon details, but it is, and I have always held that it is, on the careful attention to such minutiæ that the success and perfection of our treatment depends. May I be allowed to offer two or three illustrations as an explanation? You all know that certain little patients come under our notice who are suffering from what is commonly called harelip. When we operate upon such patients in my country—and I presume it is pretty much the same in yours—we relieve the patient of much suffering by placing him under an anæsthetic. For such little children we use chloroform; for such grown-up children as ourselves, we use ether. Besides the irritation produced by the wound, it is common to draw the margins of the wound together, and support them by strips of adhesive plaster drawn across the face. This procedure becomes a source of discomfort to the child, who cries and complains, as would be expected. But now, gentlemen, to avoid this, and to save that little one from a considerable amount of pain, it is my constant practice—and I trust you will not think me egotistical in frequently referring to my personal experience—to apply such strips to the face of the child for some three or four days prior to the operation. The child thus becomes accustomed to the restraint, and when it comes out from under the influence of the anæsthetic, it suffers, from the reason of its being so accustomed to this restraint, less than would otherwise be inevitable.

Now, I dare say that few of you think, unless your attention has been directed to the subject, of the great discomfort that is caused by the removal of adhesive plaster from a surface upon which hair may happen to grow. Perhaps some of you may have chanced to have had plaster applied to some such parts of your person, and if so, your experience is far less pleasant upon its subsequent removal. I would recommend you to so apply plaster as to never necessitate its removal until the treatment is complete. Now, take a breast amputation, and let us suppose that we secure the dressing by means of straps of plaster. Plaster so used should never be removed until the treatment is complete. When the dressing has to be changed, you are to cut out the space over the dressing, at the point where it leaves the wound and passes on to the skin. Renew your dressing, and rejoin the divided plaster by means of a strip laid over that first applied. And this may be done again and again every successive dressing, leaving the first applied plaster still adherent to the surfaces of the integument. Although this seems like a small matter, yet I assure you that these small matters materially add to the comfort of the patient, and to your success as a practitioner.

Another small matter. We are often called upon to deal with large wounds resulting from the removal of mammary tumors. It is a common practice to retain the arm across the anterior portion of the chest by means of a bandage lightly passed around the neck. Now, when the time comes for dressing the wound, some twenty-four or forty-eight hours after the operation, the bandage is loosened and the forearm and the arm are removed to the side of the body. And what takes place? The muscles have been restrained for some time; when this is done they resent the movements; you will feel them quivering under your hand. First, the biceps, and then the pectoral muscles quiver under the movement; and the patient with a great start cries out with pain. Now, why is this? Why, irritated by the action of the biceps, the pectorals, from their insertion to their attachment, are started into action; the whole wound is disturbed. The adhesions are probably rent asunder, and it is no wonder that the patient under these circumstances complains of pain. Now, let me tell you, gentlemen, how all this may be avoided, and in the simplest possible manner; and perhaps Professor Sayre will permit me to use him as a model on which to demonstrate its simplicity. If I want to prepare for the dressing of the wound, I grasp the arm firmly so as to control entirely the biceps. I now take hold of the forearm

and move the arm to the extreme of extension, and as I do this I feel the biceps quivering under my grasp; but it is unable to act, and no irritation follows in the pectorals. While grasping the biceps the arm is moved slightly to the side and is now so circumstanced that the dressing may be easily removed. I can from a practical point of view tell you that, by taking this precaution, the dressing may be effected without occasioning the patient the slightest pain. Now let me commend this to you.

Then again, with reference to amputations, not only must the patient be gotten well, but during his convalescence he should be kept free from pain. In the case of an amputation of the lower extremity I place the limb upon a splint and see that it is carefully adjusted and swung; the splint is provided with an arrangement that will allow of dressing the stump without in any way disturbing the parts. I hope I may have an opportunity of showing this instrument to you upon some future occasion. You are all probably acquainted with the manner in which the barrels of our ordinary breech-loading fowling-pieces are dropped, so as to receive the cartridges. In a similar manner a catch placed under a portion of the splint allows of sufficient of that splint being dropped from beneath the stump to permit of the removal of the dressings and of their replacement without the slightest disturbance of the parts, and without giving rise to the slightest pain. I can assure you that in this way you can dress and redress an amputation stump without the patient's even knowing the applications are being changed. And to show you how carefully these operations have to be conducted, I may add that, if during the change of the dressings, the slightest jar of the apparatus is permitted, the patient will at once recognize the error in treatment by starting of the limb and by complaints of pain.

Now, there are many ways in which pain and discomfort may be induced. I will mention one condition. There are, what I have ventured to write upon, emotional irritations. I mentioned a case of this kind only yesterday, in visiting one of your hospitals, that of a child who had been cut for stone. I will give you another instance in point: A man lay in Kenton Ward, a ward which had come to me by descent, through Sir James Paget and Mr. Stanley. The man had sustained a severe injury of his forearm. The muscles, and tendons, and nerves, indeed all there was to divide, save the bone, had been cut through in a machinery accident. We stitched all these structures together, and I suppose you do the same here; and we are hoping the day is not far distant when not only tendons, but nerves also, may be reunited and made to regain their function. Now, I commonly dress these cases by swinging the extremity by means of a very simple apparatus. I take a slate, or rather the framework of a slate, and to this I attach a pad of sawdust, on which the arm is laid. The arm is then swung by means of pulleys and a bar fixed over the bed, the arm of the patient being counterweighted by means of a graduated tin, filled with shot, so as to exactly balance the part suspended.

In this way the patient can, without an effort, raise or depress the part, and is even allowed sufficient liberty of movement to permit of his getting up and moving around his bed.

Now, although I thought I had made this man as comfortable as he possibly could be, yet he soon became irritable, and his temperature rose to 103° or 104°. There was nothing to account for this, save that he complained of the apparatus, and said that it irritated him. Now, I always attend to the complaints of my patients, and you will always find they have some good reason, or at least, if not attended to, will make themselves ill over nothing at all.

Well, I had to take it all down, and laid his arm simply upon the bed. At once he was relieved, the irritation was at an end, and the temperature fell to the normal point.

Now, gentlemen, I pray you always to attend to the slightest complaints of your patients. If you do not, some slight irritation, such as I have been describing to you, will vex and continue to vex them, which at last may grow into such an irritation as to produce not merely pain, but considerable constitutional disturbance.

But these rough mechanical movements are not the only conditions which give rise to unrest in a wound. In these days, when we endeavor to secure union in a wound by first intention, we bring into close apposition the margins of the wound. But we know that in connection with all wounds there is a certain amount of blood-stained fluid necessarily effused, and if this remains locked up in a wound, what must of necessity ensue? Not only is the patient made restless, and pain occasioned by the swelling caused by the accumulation of the fluid, to say nothing of the risks of some one of those forms of constitutional disturbances which we speak of collectively under the name of blood-poisoning, but, as you can readily understand, the fluid, as it collects, of necessity separates more and more widely the parts, which, if they are to unite by primary union, or by granulation, must needs lie in absolute contact. Now, to avoid this cause of pain and irritation, all wounds must be effectually drained. It matters not what form of drainage-tube you may employ; sometimes a silver tube may be used, or a piece of elastic tubing, or a bit of cat-gut, or that which I very frequently employ, a strip of gutta-percha tissue carried through the depth of the wound; but in some way drainage should be effectually secured, so that all this fluid may have a ready escape, and thus free the patient from the irritation which would otherwise necessarily be induced.

I do not think we have ever sufficiently recognized the great importance of the truths respecting drainage, first enunciated by Chassaignac. I think we are largely indebted to him for introducing the subject to our notice, and of its vast importance I cannot too strongly speak.

As bearing upon this point, I may venture to tell you, that, with the large number of tumors which I have removed in our theatre during the last seven years, there has been but one fatal case.

Of all the breast operations we have lost only one. That, of the greater operations performed upon bone there has not been one fatal case during the same period. Of the amputations which I have performed during this period, which have been some eighty, I have lost only four cases, and one of these, I must in truth, confess, was lost from my own ill-treatment of the case. And here let me add, that I consider it most important that we should always look at home for faults; and before we condemn the constitution of the patient upon whom we operated, or the hospital surroundings, we should ask ourselves whether we may not have committed some errors of treatment by the avoidance of which a more favorable issue might have been attained. In illustration, I may mention, that, at a meeting of our Clinical Society, Mr. Cadge, of Norwich, one of our ablest provincial surgeons, referring to a projected rebuilding of the hospital in that city, in consequence of its unhealthiness, stated that he would not rest con-

tent until he had brought it into the same satisfactory condition as that which I related of St. Bartholomew's. A year later he was able to state, in a lecture published in one of our medical journals, *The Lancet*, that, during the twelve months previous, his practice had been free from pyæmia, and he had, I believe, no fatal cases of erysipelas.

These may seem to you as unimportant details, but I maintain that it is by attention to these that the success of your treatment and of the avoidance of pain will entirely depend.

We have at our annual meeting at St. Bartholomew's an old toast to the health and ease of our poor patients. So far as surgical operations are concerned, I think I may truly say that their health and well-doing is thoroughly insured. It is during their convalescence to guard our patients from pain that I think we should now strive, and I hope I may have made clear to you, at all events, some of the points which, if attended to, may insure also the accomplishment of this.

I really ought not to occupy more of your time, but, to comply with the request of Professor Sayre, I will make a few remarks upon the treatment of abscesses; and, in continuing my remarks, I am reminded of that which happened to me the other day, when I had placed before me some fourteen dishes, which constituted my dinner, and from which I had to complete that which is one of the most important operations of the day. I fear that, just as I was then embarrassed by the multiplicity of choice, so you also may suffer from having so many subjects crowded in so brief a time under your notice. The time is scarcely passed—indeed, if you will refer to any of the works on surgery of the present day, you will find it laid down as a rule that, when you have a patient suffering with an abscess developed in the course of some chronic disease, it is better to leave the abscess to pursue its course, carrying mischief among the muscles, and widely diffusing such mischief in distant parts of the body, because it is stated, that when such an abscess is opened there is risk of grave constitutional disturbance, and sometimes even of inflammation of the abscess sac, leading to blood-poison and to the death of the patient. At the best, the opening of such abscesses was held to be followed by such an increase of the discharge as rapidly to exhaust the patient, and thus to hasten the fatal result; and, no doubt, treated as these abscesses usually were, such consequences often ensued. I now have no hesitation in opening such abscesses, and I may say that it constantly happens that patients are admitted to the wards for the purpose of having such abscesses treated, and within a week or ten days thereafter are discharged, to be again out-patients, the abscess having been opened without the slightest constitutional disturbance or inconvenience to the patient. We effected this by what I have spoken of as hyper-distention—a somewhat barbarous expression, but I believe in medicine we are permitted to make use of such expressions. To effect this we make a lotion of one part carbolic acid to twenty of water, diluted at the time of its use by the addition of hot water, so as to bring its strength to one in thirty. An incision is now made into the abscess; I usually employ one of a crucial shape, about the size of a double-edged scalpel, and the lotion is injected with an ordinary syringe provided with an elastic nozzle. The pus having been first evacuated in the ordinary way, as much as will flow being allowed to escape, and as much more as can be got at being evacuated by means of pressure, as the fluid is forced in and the sac becomes distended, the elastic nozzle expands and fills up the opening, and in this way almost any amount of pressure may be brought to bear upon the distention of the abscess cavity. When distended as far as possible, the lotion is allowed to escape from the cavity, and the injection is repeated again and again until it runs clear from the wound. We then know that the abscess has been thoroughly cleaned out. I do not say it is always possible to effect this, for sometimes we meet with exceptions to the general rule, and find that some muscle or tissue hangs, valve-like, over a portion of the abscess sac, and renders it impossible for us to force the fluid to the extreme limits of the cavity; but such is an exceptional condition, and can only be taken as referring to the general truth that all good rules must have their exceptions. After the distention has been completed, and the drainage-tube is introduced, and the wound is covered with some carbolized oil, lint, and a sheet of gutta-percha tissue, there may be some little discharge, partly of the fluid injected and not evacuated at the time of the operation, which may be mingled with pus for a few days; but presently the abscess contracts to a mere sinus. I do not mean to say that this sinus can be always closed; the treatment does not profess to cure the carious condition upon which the abscess may depend; and so long as a cause of irritation exists, whether deep carious bone or dead bone, or whatever else may be the cause, the sinus will remain as a canal along which the discharge necessarily goes. But there will be no constitutional disturbance consequent upon the operation. All extension of the abscess is prevented, and the patient, so far from suffering, rapidly improves in his general condition consequent upon the evacuation which has been effected. If there be no such cause of irritation, the sinus will presently heal up.

In the case of acute abcesses the effect is still more marked. For example, a case which I recollect, that of a large abscess upon the side of the chest, consequent upon a local hurt; the hyperdistention of the abscess is followed by the rapid contraction and healing of the sac.

It so happened, that some time ago I had under my care a case in which two abscesses had formed in consequence of disease following the course of the vena saphena interna. Not disease of the vein itself, for I do not believe in such an occurrence. One of these abcesses was opened in the ordinary way, and it was three or more weeks before it healed. The second abscess I distended, and the result was, that in some two or three days it had entirely closed. I do not know when I have had a case which impressed me more with the benefits attending this particular method of dealing with abscesses, acute or chronic.

A New Philadelphia Dispensary.—The building formerly known as the Retreat, on the Spruce Street side of the Pennsylvania Hospital grounds, in Philadelphia, was opened on January 1st, 1879, as a free dispensary for medical and surgical relief, free to all unable to pay for the same. The reception room is cosily fitted up, and there are two rooms besides for the medical and two for the surgical patients, with appropriate closets and washstands, the heating being from open grates. The hours for surgical treatment are from 10 to 11 A.M., and from 11 to 12 for medical relief. The dispensary will be open every day except Sunday, and visitors to patients will be admitted only on Mondays, Wednesdays, and Fridays, from 2 to 4 P.M.

LECTURES ON CLUB-FOOT.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK (SPECIAL COURSE).

By JOS. C. HUTCHISON, M.D.,

VISITING SURGEON TO THE BROOKLYN CITY HOSPITAL; SURGEON-IN-CHIEF TO THE BROOKLYN ORTHOPEDIC INFIRMARY; CONSULTING SURGEON TO THE KINGS COUNTY, ST. PETER'S AND ST. JOHN'S HOSPITALS, ETC.

Lecture VII.

TALIPES CALCANEUS CONGENITAL—TREATMENT—NON-CONGENITAL—CAUSES—TREATMENT—CALCANEO-VARUS AND CALCANEO-VALGUS.

I invite your attention to-day, gentlemen, to another deformity of the foot, viz., *talipes calcaneus*, which, like the varieties hitherto described, occurs both as a congenital and non-congenital affection—the two varieties differing so greatly, both in pathology and treatment, as to demand a separate consideration. The congenital form is almost as rare as equinus. The essential characteristic of talipes calcaneus is depression of the heel. In the *congenital* variety, which we will first describe, there is, in addition to the depression of the os calcis, marked flexion of the dorsum of the foot against the front of the leg (Fig. 27), and

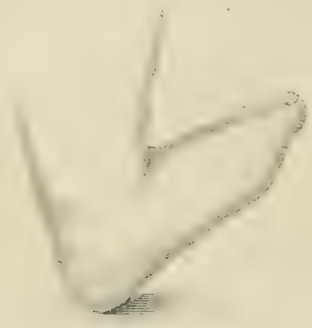


Fig. 27.

the condition is exactly the reverse of talipes equinus, in which there is an extreme degree of extension of the foot. The foot is retained in a flexed position by the contraction of all the muscles whose tendons pass over the front of the ankle-joint, and stand out very prominently.

The *bones* undergo very little change in their relative positions; indeed, the deformity is only an exaggerated degree of one of the natural motions or positions of the foot, and the deformity, in the infant, can be easily overcome by gentle manipulation; but on removing the hand, the foot is immediately drawn up again by the contraction of the muscles. The facility with which the foot can be brought to a normal position indicates that structural shortening has not taken place, either in the flexor *muscles*, or in the *ligaments* on the anterior part of the foot. In rare cases, however, the foot is held firmly in its flexed position in consequence of the structural shortening of the anterior muscles of the leg and the anterior ligaments, and operative proceedings may be necessary to overcome the distortion.

Prognosis.—Congenital talipes calcaneus, which is only seen in infants and young children, may be regarded merely as a malposition from intra-uterine pressure. It is the least important, as well as the rarest deformity of the feet, and yields readily to the simplest treatment. Surgical interference is not usually required. It is only necessary in ordinary cases to extend the foot, to make frequent passive motions of the ankle-joint, and to use frictions with the hand over the anterior muscles of the leg. The cure may be hastened by the application to the front of the leg and foot of a well-padded metal splint, which should be straightened from time to time, as the foot improves.

In the rare cases in which there is permanent contraction of the flexor muscles (namely, the extensor longus digitorum, peroneus tertius, extensor proprius pollicis, and the tibialis anticus), they should be divided as they pass over the ankle-joint, where they are tense and prominent. A sharp-pointed tenotome is inserted close to the inner side of the extensor longus and carried outward beneath the tendon of that muscle, and also of the peroneus tertius, which are then divided towards the skin; the knife is withdrawn, and reintroduced and passed inward beneath the anterior tibial and extensor pollicis tendons, which are divided in the same way. You will avoid the risk of puncturing the anterior tibial artery by keeping the point of the knife close to the tendons to be divided. The wound should be immediately closed by a pledget of lint, retained by adhesive plaster and a bandage.

After three or four days you should begin the mechanical treatment, which consists in the application of the padded metal splint, in the manner which I have just described. The foot should be extended daily, and you will, in the course of three weeks, without much pain or inconvenience, be enabled to bring it to a state of complete extension. When this has been accomplished, the splint may be left off an hour or two each day, and passive motions and manipulations practised until the tendency to contraction has ceased. This is of the greatest importance also to the development of the infantile muscles. There is but little tendency to relapse, and in the after-treatment no retentive apparatus is required.

NON-CONGENITAL TALIPES CALCANEUS.

This deformity of the foot has been designated by one writer (Barwell) as *talipes cavus*, by another (Bauer) as *talipes simplex sive plantaris*, and by others it is described as *talipes calcaneus valgus*. I prefer to

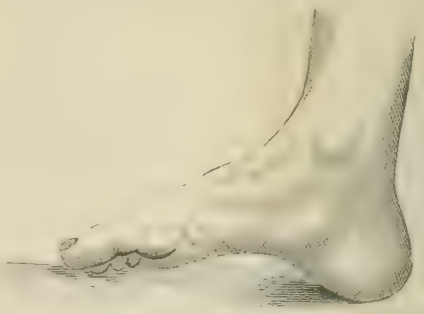


Fig. 28.

describe it under the name of *non-congenital talipes calcaneus*, because of its resemblance, in the early stage, to congenital calcaneus, for, in addition to depression of the tuberosity of the calcis, there is, in the early stage, slight elevation of the anterior part of the foot (Fig. 28). At a later period, however, the foot becomes flexed upon itself at the transverse joint, the anterior portion is bent downward, the transverse arch is lost, while antero-posteriorly the sole is deeply arched. This affection is usually of paralytic origin, the paralysis being generally confined to the triceps suræ, but sometimes it extends to all the extensor muscles. I

cannot better describe this deformity than by directing your attention to the appearances presented by the cast I here show you, which was taken from the

FIG. 29.

right foot and leg of a girl eleven years old, who was the subject of infantile paralysis, affecting the triceps extensor muscles of the leg, at two and a half years of age (Fig. 29). It will be noticed that the foot in front of the transverse tarsal joint is bent downward. The flexion of the anterior part of the foot is secondary, and is due to the action of the peroneus longus chiefly, assisted by the posterior tibial, these muscles supplementing the sural muscles as extensors of the foot. These muscles acting, while the triceps suræ are paralyzed, in their efforts to keep the foot normal by their extending force, must necessarily drag down the anterior tarsus, so that the ball and the heel approximate each other, and the sole is so deeply arched that a mouse could run under it without touching it, as was the case in Lady Hester Stanhope's foot, which was remarkable for a high plantar arch. The transverse arch has disappeared. The foot is also a little rotated outward by the action of the peroneus longus, its farther rotation being prevented by the action of the posterior tibial. It will be perceived that the head of the metatarsal bone of the great toe is forcibly depressed. This is due to the normal contraction of the peroneus longus, which is unopposed in this part of its function. It will be seen also that the os calcis is depressed, so that the patient walks on the tuberosity instead of walking upon the normally under-surface of the bone, and that the only parts of the foot which touch the ground are the ball of the great toe and the tuberosity of the heel. The muscles of the calf are wasted, owing to the long-standing paralysis, and the back of the leg, from the knee downward, is very nearly straight, instead of presenting the curved outlines observed in the normal leg. Even the os calcis has lost its prominence, and the tendo Achillis feels like a thin and narrow ribbon. The limb is cold, the circulation languid, and the patient suffers easily from chilblains; in fact, we have here the usual concomitants of a paralytic limb.

You can imagine that the inconvenience caused by such an affliction is very great, and the lameness considerable; the relaxation of the ligaments deprives the foot of all useful motion and firmness, and walking is accomplished with great difficulty without the aid of artificial support.

The usual *cause* of non-congenital calcaneus is infantile paralysis, principally confined to the sural muscles; but sometimes all the muscles below the knee are paralyzed, except those whose contraction produces the deformity. It may also be caused by improper union of the tendo Achillis after section or accidental rupture, by separating the ends too far before they had united, or it may be produced by the contraction of a cicatrix resulting from a wound or burn on the dorsum of the foot. A condition of the foot resembling non-congenital calcaneus is artificially produced among the Chinese women of the higher order by confining the feet by short shoes and improper bandages during infancy (Fig. 30).

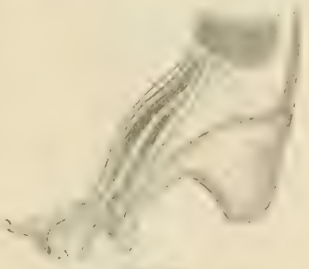


FIG. 30.

It has been found, upon dissection, that the relative position of the *bones* is considerably changed. We have already alluded to the depression of the tuberosity of the os calcis, while its anterior part is elevated; and, as a consequence of this, there is a great obliquity of the astragalus, its trochlea projecting posteriorly, while the articular surface of the tibia is thrown forward upon the neck of the astragalus, and the anterior portion of its trochlea. The bones in front of the transverse tarsal joint are pulled downward by the action of the peronei muscles, diminishing the length of the foot, and increasing the longitudinal arch.

Owing to the changed position of the bones, the *ligaments* on the dorsum of the foot and behind the ankle-joint are elongated; those in front of the ankle-joint and those in the sole, together with the muscles with which they are connected, are contracted.

When the distortion arises from paralysis, and is of long standing, the *muscles* are in a state of atrophy and fatty degeneration, more or less complete.

The *prognosis* in cases of this deformity arising from paralysis is usually unfavorable, and our treatment can only be palliative. We can remove the deformity in a measure, but we cannot give power to the muscles.

Treatment.—In paralytic cases, if the patient is seen soon after the distortion has begun, we can not only prevent any considerable deformity by the use of suitable appliances, but muscular power can, in a measure, be restored by means of electricity or galvanism, heat, stimulating applications, rubbing, etc. The apparatus which I would advise is the one I here show you (Fig. 31, Tiemann's). It consists of two lateral side steels, carried up the leg and secured by a band around the calf, with a joint at the ankle. The anterior part of the foot is depressed, and the heel is elevated by a steel spiral spring placed on a pivot, and playing between brackets of the leg and ankle-stem. This apparatus I consider preferable to the india-rubber cords fastened posteriorly to the heel below, and to the calf-band above, so as to imitate the tendo Achillis. If, however, the latter apparatus should be employed, the spur projecting from the posterior part of the heel should be dispensed with

(because it is in the way, and liable to catch, especially when descending the stairs), and the cord fastened directly to the heel by means of a leather strap.

You may be surprised to learn that this affliction is usually overlooked in the early stage, and, when it is recognized and brought to the attention of the surgeon, considerable deformity has taken place. The earlier it is treated, the more readily is the distortion overcome. When, unfortunately, much time has elapsed before the deformity is discovered, there is marked depression of the os calcis and great increase of the longitudinal arch of the foot, and the ligaments and muscles have adapted themselves to the

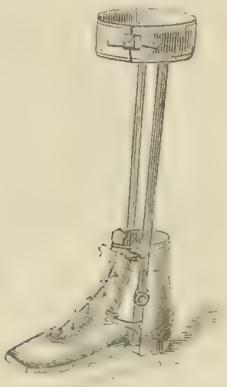


FIG. 31.

altered condition of the foot, so as to give it a considerable degree of firmness, which enables the patient to walk quite well. In such a case, while physiological treatment and mechanical appliances may increase the usefulness of the foot, and may be used in appropriate cases, it is extremely probable that tenotomy would, on account of the paralysis of the muscles, allow the foot to dangle about and become almost useless, and render some mechanical apparatus indispensable. Operative treatment is less appropriate in this than in other forms of club-foot. In exceptional cases it may be necessary to divide the contracted extensor and other tendons, and the plantar fascia, and then proceed to extend and elongate the foot by the use of a Scarpa's shoe, and by pressure on the dorsum of the foot. When the distortion has been reduced, the patient may wear the shoe which I have just shown you, for the purpose of supporting the limb. I desire to warn you against exciting the expectations of your patient too much. He should be informed that the treatment can only be palliative—that there is no reasonable probability that the paralyzed muscles will regain their normal power.

In cases of talipes calcaneus, the result of non-union of the divided tendo Achillis or of too great elongation of the reuniting medium, Dr. Little advises incising the edges of the ununited tendon, or dividing the uniting medium with a tenotomy knife, and then approximating the ends by placing the foot in an extended position. In such a case he has known an abundant effusion of plastic material to take place, and firm union of the tendon at the end of two weeks.

When the distortion is caused by cicatricial contraction on the front of the leg or dorsum of the foot, such a treatment should be adopted as seems to be indicated in each particular case.

Calcaneus varus and *calcaneus valgus* are slight and unimportant modifications of talipes calcaneus. Their characteristics are sufficiently indicated by their designations, and the pathology and treatment are essentially the same as in the simple varieties, and do not therefore deserve separate consideration.

I have now, gentlemen, completed what I have to say to you upon the subject of club-foot, in accordance with the plan which I proposed for myself at the outset. No attempt has been made to treat the subject exhaustively, or to amuse you with novelties, and I have endeavored to avoid *ad captandum* or random statements. It has been my purpose to give you in as concise and simple a manner as possible the results of my personal observations and reflections upon the subjects we have considered, to unfold to you, as I stated at the outset, a much neglected, but a most attractive chapter of modern surgery, and to impress upon you general principles which I trust will enable you to treat club-foot wherever you meet it, without the assistance of the specialist or the hospital surgeon.

To those of you who may desire to study more fully and more in detail the subject of talipes, I would recommend the great work of Mr. William Adams, of London, by far the ablest monograph upon this subject in any language.

In conclusion, gentlemen, I desire to express my sincere thanks for the interest you have manifested and for your uniform courtesy, and to wish you every success in the profession of your choice.

ACUTE ARTICULAR RHEUMATISM.

TWO LECTURES DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA,

BY ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

LECTURE I.

THE CAUSES OF ACUTE ARTICULAR RHEUMATISM—TRUE ARTICULAR RHEUMATISM NOT A TRUE INFLAMMATION—GONORRHŒAL RHEUMATISM NOT A TRUE FORM OF ARTICULAR RHEUMATISM—COLD AND DAMPNESS AS EXCITING CAUSES OF ACUTE ARTICULAR RHEUMATISM ACUTE ARTICULAR RHEUMATISM AS PRODUCED BY THE PRESENCE OF LACTIC ACID IN THE BLOOD—ACUTE ARTICULAR RHEUMATISM DUE TO BLOOD-POISON—THE LOCAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM.

ACUTE articular rheumatism is one of the most common of all diseases. Although but rarely, if ever, fatal in itself, it is always liable to cause permanent deformity, and is often followed by serious and destructive complications. You all know, indeed, that it is one of the most potent and frequent causes of organic disease of the heart. Its presence is marked by pain, swelling, heat, and redness, the usual signs of the inflammatory process. These symptoms manifest themselves in one or more of the joints. Though in all instances accompanied by fever, there is but slight, if any, tendency to suppuration. As far as I am concerned, I have never known of suppuration to occur in this disease. This fact shows us conclusively of itself, if we had no other facts as proof additional, that acute articular rheumatism is not an inflammation in the ordinary sense of the word. The patient may recover entirely, so far as the joints are concerned, and yet die from one of the numerous complications of the disease. Acute rheumatic inflammation of the joints seldom leaves behind it the results of inflammation in the joints themselves, no matter how severe may have

been the attack. When lesions of the joints have been found after death, and such cases are of exceeding rarity, they have undoubtedly been the result of an arthritis due to other causes, such as pyæmia, and by pyæmia I mean a general blood-poison, accompanied by a tendency to suppuration all over the body, in the joints as well as elsewhere.

TRUE ACUTE ARTICULAR RHEUMATISM NOT A TRUE INFLAMMATION.

Now, perhaps some of you may be surprised that I should speak in this way, and you may say to me, "You have not always taught us this." Very true; I must confess that my past teachings have been far from my present convictions on this point. I have been compelled to waver, because those whom I am bound to consider as my own teachers have held at different times, within recent years, the most various and contradictory views of this matter. But, with the better and more conclusive light which has quite lately been thrown upon the subject, I am to day able to give you my complete and final judgment in the matter, which is, that in *acute rheumatism of the joints there is no true inflammation, in the proper sense of the term.*

Acute articular rheumatism is said by some to be an hereditary disease. I have always had, and still hold to, my doubts as to whether it ever occurred without the intervention of a direct cause, such as cold and dampness, poor food, and improper clothing. Of course, these conditions are most frequently met with among the lower classes of society, and the children of these people, being exposed to the same predisposing causes as their parents, are subject to the same disease, and yet it would be far from logical to state that such children acquire the disease from a simple inherited predisposition to it.

One thing, however, is very certain, and that is, that a person who has had one attack of acute articular rheumatism is much more liable to a second attack than he who has not been attacked before. One attack is wont to leave behind in the system a great susceptibility to the disease and to its cause. One who has suffered from acute articular rheumatism will always feel the approach of cold and damp weather, and will, as it were, become his own barometer.

Although attacking children frequently, it is comparatively rare until the age of puberty. It frequently follows dysentery and scarlatina. Every now and then we see it in the puerperal state. I can imagine no common element which is able to account for its presence in each of these three conditions. The diseases themselves are certainly widely different.

Males are much more susceptible to the disease than females. And this is so, of course, because they are much more exposed to the vicissitudes of weather than the gentler sex. This rule holds good in this country among all classes of society, and in England and the continent, among the middle and upper social strata; but where the women perform the same outdoor labors and are consequently as much exposed as the men, which is the case almost universally among the lower classes in Europe, they do not differ so much from the men in the frequency of being attacked.

Certain classes of people, owing to the nature of their employment, are the most exposed to the disease. Of all persons, sailors are proverbially the most rheumatic, and with good reason. Next in order come soldiers on active campaign duty. Among trades, bakers, going as they do, in a moment from a very hot to a more or less cold temperature, and dyers and coachmen, and in fact, outdoor laborers of all kinds are much exposed to the peculiar conditions which produce the disease, and are of a necessity more subject to it than others.

You have heard, no doubt, of gonorrhœal rheumatism?

GONORRHŒAL RHEUMATISM NOT A TRUE FORM OF THIS DISEASE.

I have great doubts as to whether rheumatism of the articular type can be produced without the interference of cold. Gonorrhœal rheumatism is not a rheumatism in its true sense. Those who hold that it is so are, I think, in much error. Gonorrhœal rheumatism is a species of synovitis. Such are those rare, so-called cases of acute articular rheumatism in which lesions have been found in the joints after death, to which I directed your attention a few moments ago.

COLD AND DAMPNESS AS EXCITING CAUSES OF ACUTE ARTICULAR RHEUMATISM, WITH AN EXPLANATION OF THEIR ACTIONS.

The great exciting cause of acute articular rheumatism is cold, especially when the body is perspiring; hence, where east winds prevail, rheumatism is rife. Rheumatism is very frequently met with in the British Isles, because the climate is so cold and damp. In America, the further you recede from the influence of the east winds the less rheumatism you will find.

There has been much discussion regarding the rationale of the action of cold and dampness upon the body in producing this disease. Cold, of course, tends to carry away caloric from the body, while dampness not only deprives the body of caloric and of electricity, but also exerts a depressing influence upon all the functions of life. Not only do the cold and dampness carry away these vital stimulants, but they prevent exhalation, and so cause the retention of effete material within the body. (I shall allude hereafter to the theory of the presence of a poison in the blood in this disease; but you can very easily see how, if exhalation from the surface of the body is prevented, there is of necessity a poison retained and circulating in the blood.) Many of you have noticed, no doubt, how much more tolerable is a really intense degree of dry cold than a much less degree of damp cold.

Cold and dampness act more upon the joints than upon other parts of the body, *i. e.*, affect them sooner, because the joints are not protected by muscles and fat, and have less blood and therefore less heat in them.

Cold, as you know, always produces a temporary suppression of habitual discharges, such as the menses, the flow of milk, and the secretion of pus. Whatever produces a suppression of discharges may, of course, bring on articular rheumatism; but cold and dampness, when they check such discharges, always produce it. This disease, as is well known everywhere, is infrequent in warm weather. In countries where the temperature is always high, it is hardly ever known to occur. This would seem to be quite sufficient proof of the powerful effect of cold and dampness in producing it.

ACUTE ARTICULAR RHEUMATISM AS PRODUCED BY THE PRESENCE OF LACTIC ACID IN THE BLOOD.

It is very hard to know exactly how cold and dampness produce acute articular rheumatism. There have been very many attempts made to explain the real and direct cause of the disease, but none of the theories advanced have been consistent with all the facts of the case, *i. e.*, have so far explained away the difficulties of the situation as to constitute themselves

trustworthy explanations. One theory, however, stands preëminent among all the rest as clearing up very many dark points. This theory is of quite recent origin, and is, that the phenomena of acute articular rheumatism are all caused by the accumulation and the retention of lactic acid and of other acid products in the blood. Certain it is that these acids must be retained in the blood if the elimination of effete products is checked.

One well-authenticated fact makes this theory, in semblance at least, a very plausible one. Large doses of lactic acid, as given to patients with saccharine diabetes, occasionally produce all the symptoms of acute articular rheumatism. The administration of lactic acid, as you all know, in saccharine diabetes, causes an immediate and most marked reduction in the quantity of sugar in the urine. In one case on record, this same treatment was seen to produce all the symptoms of acute articular rheumatism several times in succession. Dr. Foster, of England, had under his charge a patient with well-marked symptoms of diabetes, who was treated with lactic acid, and most carefully watched. This patient had never suffered from an attack of acute articular rheumatism, and had been in the hospital under treatment for diabetes for some time before the lactic acid was employed. No sooner had several doses of the lactic acid been administered than the man began to complain of pains in the joints, while the joints themselves became swollen, red, and painful to the touch. Upon the inception of these undoubted symptoms of acute articular rheumatism, the use of the lactic acid was suspended, and, no other treatment being employed in the meantime, the symptoms aroused by the use of the acid gradually, but completely, disappeared. Again the acid was administered, and again the redness, swelling, pain, and heat in the joints came on — only to disappear for the second time upon the suspension of the drug. A third time the medicine was given—a third time the same symptoms came and disappeared. Whether the remarkable and consistent effects of lactic acid in this case of Dr. Foster's show any real and palpable connection between the assumed cause of the disease and its real cause, whatever that may be, I do not, indeed, know; but of one thing I can be absolutely certain, and that is, that the lactic acid in the above cited case at least, if not in ordinary cases of acute articular rheumatism, directly produced the actual symptoms peculiar to acute articular rheumatism.

The acidity of the blood in this disease has been conclusively proven to be greater than in any other affection, while the salutary and immediate effect of the administration of alkalies in its treatment gives additionally strong support to the idea that all the trouble is caused by the over-abundance of some acid in the circulation, whether that acid be lactic acid or not.

Attention has been called to the fact, that while one person exposed to cold and dampness is seized with acute articular rheumatism, another individual, after exactly the same exposure, may have an attack of dysentery, etc., etc., and the conclusion has been drawn that cold and dampness are not important factors in the causation of the disease. You should all know that one person may have a decided predisposition to one form of disease, while his neighbor is equally strongly predisposed to another of a widely different nature, and that when these two persons are exposed to cold and dampness, the great exciting causes of many different diseases, one is attacked with one, and the other with another disease.

The early symptoms of acute articular rheumatism are those of all other diseases which are attended with the symptoms of inflammation, viz.: a chill, a feeling of general debility, a hot skin, a frequent pulse, loss of appetite, headache, thirst, and more or less highly colored urine. None of these conditions are distinctive of this or any other form of acute disease. The joint affection is *the* symptom; soon after the above prodromic phenomena have set in the joints, one or more of them, or all of them simultaneously, become swollen, red, and painful.

Occasionally the local symptoms precede the constitutional, *i. e.*, the joints become swollen, red, and painful before the fever, and headache, and general lassitude are felt. But, as a general thing, the fever and the other attendant symptoms are the first to appear.

If the symptoms were merely local, or always primarily so, the disease would be only a local disease. But the first occurrence of general symptoms which sometimes occurs, points indubitably to the existence of blood-poison.

ACUTE ARTICULAR RHEUMATISM DUE TO BLOOD-POISONING.

There is no question about this. It is proved beyond all cavil by what I have just told you of the causation and symptoms of the disease. *Rheumatism* means, etymologically, *a defluxion of some humor upon the joints.* This old definition is confirmed by the most recent researches. It is a general systemic disease, which assumes a local form.

THE LOCAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM.

Pain is the first local phenomenon. This pain may amount only to a simple feeling of tension, or it may be lancinating, or throbbing, or boring; of whatever kind the pain may be, in its degree it is often intolerable. There is no other pain of the joints, except that of gout, which is worse than that of acute articular rheumatism.

The pain is felt most upon motion, *i. e.*, upon movement of the part. The least movement, a breath of air, a touch of the bed covers, produces the most violent exacerbation of pain. The pain too is always worse at night. The inflammation has a great tendency to leave its seat and migrate to another joint, or to all the other joints at once, or to one of the internal organs. Herein lies another proof that we have no local disease to deal with. Again, the disease may leave one joint altogether, and settle upon another joint, or upon an internal organ, and then, leaving this second point of disease, return again to its first seat. Again, all the joints of the body may be the seat of the disease, and the patient become as rigid as a statue.

It is a strange fact that the disease, when leaving one joint and seizing upon another, is likely to attack the same joint upon the opposite half of the body, or if two joints are simultaneously affected, they are apt to be the corresponding joints on the opposite sides of the body.

The next symptom which we have to consider is the *heat.* This is very sensible to the hand when applied to the affected parts. The temperature is never so high, when but one joint is affected, as when all the joints are attacked simultaneously. In ordinary cases the thermometer applied to the skin marks from 100° to 104° F. In exceptional cases—particularly the so-called cases of *hyperpyrexia*—the temperature runs up to 110°, or is sometimes even as high as

112°. (It is in these cases of so-called hyperpyrexia that a certain kind of treatment is supposed to be valuable on account of its power of reducing the temperature.)

The *redness* is never so great in acute articular rheumatism as in other forms of inflammation—seldom being more than a light pink.

The *swelling* likewise is not so marked, but as it occurs in the joints is easily detected—particularly is this the case where the ankle, elbow, or knee-joint is affected. In the case of the hip joint, there may be a considerable amount of swelling around the joint without any external sign of its existence. This is also the case in rheumatism of the vertebræ, where the swelling is generally of a diffused nature, and not marked on the surface.

The swelling is generally of two kinds, occupying (1) the connective and other tissues around the joints, or (2) attacking the tendinous fossæ or the synovial cavities. In this latter form, the joint may become alobular in shape, and percussion may elicit considerable fluctuation, and give to the patella a regular see-saw motion as it hangs suspended in the fluid.

(To be concluded.)

Reports of Hospitals.

COOK COUNTY HOSPITAL, CHICAGO.

CLINICAL REMARKS

By Edward W. Lee, M.D.

(Reported for the Medical Record.)

DIFFUSE TRAUMATIC ANEURISM OF THE PALMAR ARCH.

We have here a case of diffuse traumatic aneurism. Some eight weeks since this man sustained a wound in the palm of the hand by means of a piece of broken glass. The wound healed kindly and he thought nothing more of it till about a month subsequently, when he noticed a small pulsating tumor making its appearance at the site of injury; it gradually increased in size till it became as large as a walnut. One night during sleep it ruptured, and a considerable quantity of blood was lost. A compress was applied, which controlled the hemorrhage. I examined the injury for the first time about forty-eight hours since. On removing the bandage and compress the blood spurted out with great force, so that I was obliged to make forcible compression on the radial and ulnar arteries in order to control the hemorrhage. I do not know of any lesion the treatment of which proves more troublesome, or taxes the skill and patience of the surgeon more, than this. The bleeding-point was at the deep palmar arch as it gives off its first interosseous branch; from its depth it was a matter of great difficulty, without making such an extensive dissection as to endanger the integrity of the hand, to reach it, and as the soft parts had become pulpefied by the pressure of the tumor, the difficulty was still further enhanced. It is always the best practice, if it can be accomplished, to secure the vessel at the seat of injury, as you may ligate the radial and ulnar arteries; yet the anastomotic supply furnishes sufficient blood to maintain the hemorrhage. I made a longitudinal incision over the centre of the tumor, and turned out the clots and broken-down tissue; this procedure made quite a good-sized cavity, at the bottom of which the bleeding vessel could be seen. Repeated efforts were now made to ligate the injured artery, but without success. I, however, made acupressure by means of a curved needle passed beneath the vessel at the proximal side, and in this manner succeeded in controlling the supply of blood from that direction. An attempt to execute a similar manœuvre on the distal side was unsuccessful, for want of a needle with a suitable curve. I found a tenaculum, however, which possessed the requisite curve, and, by passing it under the vessel and compressing the transfixed tissue with silver wire, I succeeded in controlling the hemorrhage completely. So great had been the difficulty in attaining this object by *any* means, I thought it would be imprudent to disturb the existing order of things, and so determined to leave the tenaculum in situ. The handle of the instrument was protected with wads of oakum and a bandage applied over all—rather a cumbersome-looking dressing, as you may perceive, yet thoroughly effectual. I shall leave it undisturbed for two or three days, when it may be removed with perfect safety.

ANTISEPTIC DRESSING WITHOUT THE SPRAY.

The next case we have illustrates what we may do with many small wounds in the way of antiseptic dressing, dispensing with the spray, gauze, etc., as used in the Lister method. This young man received three weeks ago a crushing injury of the hand. The index finger received a lacerated wound, the middle a compound fracture, and the ring finger was so badly mutilated that amputation was rendered necessary. The injured parts had been exposed to the atmosphere for a couple of hours before the first dressings were applied. I carefully cleansed the wounds, then thoroughly washed them with a solution of carbolic acid (15 grs. to the ounce of fluid made of one part each of alcohol and glycerine and six of water); then, with lint steeped in this solution, I wrapped the injured fingers, securing them with a narrow roller bandage neatly and closely applied, so that the dressing was quite thick. The dressings were again saturated with the solution, and directions given to keep them constantly moistened with it. The patient was seen daily and carefully examined for evidences of suppurative inflammation. In the absence of such the dressings were allowed to remain on a full week, and then their removal was simply a precautionary measure, as I believe they might have been allowed to remain undisturbed to this day, with positive benefit. Not a drop of pus was visible; healing had progressed kindly. The dressings were renewed. Another week passed by: still no evidence of suppuration. The wounds were again dressed as before, the same healthy condition being found. The finger least injured was nearly healed. Three full weeks have now passed by, and for the third time I shall remove the dressing. From the length of time that has elapsed and the exposure of the wounds to the air, it would seem reasonable to expect to find some pus this time. As I remove the bandages you perceive no pus is present, and the wounds are in a perfectly healthy condition.

In adopting this modified antiseptic plan you should watch the case very closely: if you find pain has been experienced running up the limb, or that heat is complained of in the part, if fever or glandular and lymphatic irritation is present, you must immediately remove the dressing. On the other hand, in the absence of all those symptoms, you may permit them to remain undisturbed. I have before now dressed a compound fracture of a finger in the manner detailed, and, guided by the symptoms, permitted the original dressing to

be retained full thirty days; on removing it at the end of that time, I found the bone fully united and the wound healed.

This mode of treating wounds may be very beneficially used in all small injuries where it is inconvenient or impracticable to use the perfect process with the spray, etc.

One improvement upon the dressing used in this case might be made. The bandages after they are applied should be painted over with a solution of some gum or resinous tincture, to make the dressing more nearly air-tight. Compound tincture of benzoin, or tincture of tolu, will answer the purpose.

Progress of Medical Science.

On the Pulsation of the Vena Cava Inferior in its Relation to Pathological Conditions of the Liver.—Dr. Ludwig Diemer has demonstrated the existence in rabbits of a physiological pulsation of the vena cava, isochronous with the contraction of the right auricle. It is not appreciable at the point where the renal veins open into the cava, and is very slight at the level of the openings of the hepatic veins, but it is very distinct in the thoracic cavity close to the heart. A possible error from compression by the diaphragm was excluded by division of that muscle. When the vein was compressed below, and then artificially emptied by pressure toward the heart, it was quickly refilled by blood *from the heart*. This regurgitating wave in the cava inferior is very small in consequence of the aspiratory action of the cardiac diastole. When the circulation in the pulmonary artery is impeded in consequence of valvular lesions or of disease of the lungs, resulting in increased pressure in the right ventricle during diastole, the blood is dammed back in the cava inferior, and disease of the liver follows (nutmeg liver). Dr. Diemer accounts for the fact that the kidneys do not suffer to an equal extent with the liver from the retardation of the circulation in the cava ascendens, by the theory that it is the pulsation and not the retarded circulation itself which is the immediate cause of the atrophy of the liver. A further increase in the obstruction is followed by an increase in the force of the venous pulsation, and the kidneys then become hyperæmic, but the right more so than the left, because it lies nearer to the liver.

In men the vena cava is directly in contact with the liver, and the distance thence to the heart is still smaller than in rabbits. Dr. Diemer thinks that foreign bodies which enter the right side of the heart with the blood, may be carried into the cava inferior, and thus into the liver by the regurgitating blood-stream (Magendie, Merkel). In this way the often asserted connection between injuries of the head and abscesses of the liver, the lungs remaining intact, and the predilection of metastatic carcinoma for the liver may be accounted for.—*Med. Chir. Rundschau*, August, 1878.

On Insolation and Refrigeration.—Dr. Kirchner has recently carried out a series of experiments on animals with a view to gain an insight into the pathogenesis of the two allied processes, insolation and refrigeration. He deduces from them that the latter may be characterized as prostration of the vital forces, and, first of all, of respiration and circulation. The morphotic and chemical alteration of the blood resulting therefrom, particularly its impoverishment in oxygen, is the immediate cause of the derangements that directly threaten life. Warmth, on the other hand, acts as an irritant on the animal organism, and when in excess leads to exhaustion. This constitutes the essence of insolation. As in the case of refrigeration, the foundation of the symptoms is the exhaustion of the oxygen of the blood, which here too is the consequence of the failing respiration and circulation. The appearance of rigidity during exposure, either to cold or heat, indicates excessive lack of oxygen in the blood. This rigidity is, like the rigor mortis, an anæmic muscular tetanus. If, however, we put coagulation, or, in other words, coagulation of the muscles, out of the question, tonic muscular rigidity is not commonly met with in cases of refrigeration or insolation.

The deleterious action of extreme temperatures on the organism is heightened by other weakening influences which tend to impair the supply of oxygen and to exhaust the resisting power of the system. Here must be mentioned, particularly, the misuse of alcohol. In addition to these acute effects of the action of cold and heat, there are analogous chronic conditions, which must be ascribed to the gradual action of extreme temperatures in the organism. They are characterized by manifestations of anæmia and exhaustion, and in their higher grades partly constitute the basis of the tropical and polar cachexias. It is still an open question whether any other specific diseases owe their origin to the influence of heat and cold. The fact that abdominal typhus occurs most frequently during the latter part of summer and towards the end of winter, has not yet been satisfactorily accounted for; and, as in many cases, no external source of infection can be discovered, it is, in fact, possible that the morphotic and chemical alterations of the blood and tissues, which have been proved to be the pathological effects of insolation and refrigeration, play at least a subsidiary rôle in the production of the infection.—*Allg. Med. Cent. Zeit.*, No. 47, 1878.

Obstinate Vomiting Cured by Meat-Pancreas Injections.—In the case of a woman, forty-eight years of age, suffering from an abdominal aneurism, the vomiting was so persistent that the patient was unable to retain even a mouthful of water on her stomach. Dr. Düring, of Westhofen, under whose care she was, finally had recourse to Leube's nutritive clysters. Every day, $1\frac{3}{4}$ oz. of meat and $\frac{1}{2}$ oz. of pancreas were chopped up very fine and mixed with warm water, until the compound had the consistency of a thin pap; half of this was injected into the rectum in the morning, and the other half in the evening, the clyster being retained each time for from eight to ten hours. The nutrition of the patient soon began to show signs of a slow improvement. After three weeks she was able to take a little milk by the mouth, but as the quantity thus taken did not exceed four tablespoonfuls per diem for several weeks, the progressive improvement could only be ascribed to the injections. After ten weeks the patient was so far improved that the clysters were discontinued. The gradual improvement in stomach digestion was accompanied by a progressive diminution in the size of the tumor.—*Med. Chir. Rundschau*, August, 1878.

Peculiar Alteration of the Epidermic Cells.—Dr. Leloir, of Paris, has met with a hitherto undescribed form of morbid alteration of the epidermic cells. He observed it first in venereal vegetations, but has subsequently met with it also in mucous patches of the labia and in epithelioma of the glans. The cells affected are chiefly those of the intermediate

layer of the epidermis, but the more superficial cells of the rete, and the deeper cells of the horny layer are also involved. The change consists first in the formation of a cavity around the nucleus; this cavity gradually enlarges at the expense of the protoplasm, while the nucleus at the same time undergoes various changes. As the cavity enlarges the protoplasm loses its granular character, seems to become striated longitudinally, and is converted into a thin cell-wall; the serrated border is lost. At the same time the nucleus in many of the cells has broken up into a number of granules, which are strongly colored by carmine, and which may finally disappear entirely. In other cells, on the contrary, the nucleus proliferates. Hence, while some of the newly-formed cavities are empty or contain only a few granules, others contain two or three nuclei, or perhaps a single nucleus in process of division. It is probable from this that a portion of the embryonic elements and leucocytes, met with at a more advanced stage of the process, are derived from the nuclei of the epidermic cells, a mode of origin which is absolutely denied by Auspitz and Unna.

As the process advances the cellular walls become thinner and thinner, and at last break down entirely, and the cavities open into one another. In this way vast spaces are formed, whose walls present irregular projections, constituted by the débris of the cellular walls. These spaces are filled with nuclei, white globules, granules, and small filaments, crossed or otherwise, the remains of the walls of disintegrated cells. At this stage the appearance of the section is exactly like that of a variola pustule.—*Gazette Médicale de Paris*, No. 24, 1878.

Note on the Epithelium of the Sudoriferous Glands.—Most authors who have written about the structure of the sweat-glands, have merely stated that the epithelium in the convoluted portion of the tube is composed of polygonal and cylindrical cells. These cells rest on a special membrane, on the internal surface of which Czerny asserts that he has found an endothelial lining. M. Renaut, however, has found that the cells of sweat-glands, taken immediately after death from the same region of two animals of the same species, often present very remarkable differences. He cuts out a small piece of the skin of a freshly slaughtered animal, and immerses it in strong alcohol, which hardens it so rapidly that thin sections can be cut on the following day. In skin taken from glandered horses slaughtered early in the morning at the moment of leaving the stable, when consequently the skin had not been in a state of free perspiration for several hours, he invariably found the epithelium of the sweat glomeruli composed of cylindrical cells, with clear protoplasm, the nucleus being located near the base. These cells resemble exactly, except in point of size, those which line the culs-de-sac of a conglomerate gland, such as the submaxillary. At first sight they might be mistaken for chalice cells, but the superior opening of the chalice is entirely wanting. The transparent portion of the cellule contains at the periphery a few granules, which are sometimes arranged in parallel lines so as to simulate a longitudinal, protoplasmic striation. If, however, the skin be taken from an animal killed after prolonged vivisection, or that has been placed under any other conditions which favor diaphoresis, the aspect of the epithelium of the sweat-glands is very different. The clear portion of the cellule no longer exists, the protoplasm having become everywhere granular. The swollen nucleus occupies the centre of the cell. Finally, if the action of the coagulating reagent has been rapid, the lumen of the tube is found filled with the secreted liquid, which has solidified in the form of a homogeneous mass, resembling in appearance lymph-clots.

It results from these observations that, as in the agminated glands, where long-continued secretion modifies the form of the glandular cells, diaphoresis also changes after a certain time the constitution of the cells which line the convoluted portion of the sweat-glands. When portions of the human skin are subjected to a histological examination, the epithelium of the sweat-glands is, in the majority of the cases, found altered by the abundant diaphoresis which accompanies the agony and precedes death. The state of these glands is most frequently analogous to that of the submaxillary gland after prolonged irritation of the chorda tympani.—*Gazette Médicale de Paris*, No. 24, 1878.

Changes in the Striated Muscles in Phthisis.—Dr. Fraenkel, of Hamburg, made careful microscopical examinations of the general muscular system in fifty-four cases of phthisis that died in the General Hospital in Hamburg last year, and has arrived at some interesting results. Macroscopically, he found that the muscles, as a rule, did not differ in appearance from normal muscles. Microscopically, however, the changes were very striking. The contractile substance presented all possible variations, from simple indistinctness of the cross striations to complete change of the contents of the primitive bundles into a finely granular mass. These appearances coincided with those previously found by Dr. Fraenkel in the laryngeal muscles. The most extreme form of alteration, however, that of empty sarcolemma sheaths, presenting only traces of molecular matter here and there, was much less common in the muscles of the body generally than in those of the larynx. Not unfrequently the contractile substance was found separated from the sarcolemma, the latter running a straight course, while the former presented an irregular, contracted, spiral outline. This condition was sometimes observed throughout the entire length of a primitive fibre, so far as it could be followed in the field. Transverse fissures in the muscular fibres were very frequently met with. One very constant change in at least a certain number of the muscles, notably the adductors of the thigh, the diaphragm, and the muscles of the eye, was the appearance of pigment in them. This pigmentation has not been observed in the laryngeal muscles. It appeared in the form of small, punctate, yellowish brown or greenish yellow granules, which were sometimes scattered through the contractile substance, giving it a peculiar dust-be-flecked appearance, and sometimes collected in small heaps about the normal or altered muscle-nuclei. The changes are not met with in equal intensity all throughout the body, some groups of muscles being much more severely affected than others. The following is the order given by Fraenkel: 1. Muscles of the eye, arm, and forearm. 2. Breast and neck. 3. Masseter. 4. Ball of the thumb. 5. Abdomen. 6. Back. 7. Leg. 8. Thigh and diaphragm.—*Allg. Med. Cent. Zeit.*, July 20, 1878.

The Southern Clinic.—We notice that the *Southern Clinic* used our report of the meeting of the Public Health Association, and acknowledges its indebtedness very gracefully. We are always very happy to be of such service to other journals, especially when, as is not always the case, the credit is given to us.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 11, 1879.

THE YELLOW-FEVER INVESTIGATION.

THE board of experts on yellow fever, appointed by the Joint Committee of the Senate and House of Representatives, has been organized and has fairly commenced operations. The plan of procedure agreed upon gives an assurance from the start that the Commission thoroughly appreciates its responsibilities, and is ready and willing to act up to them. No better indication of this disposition can perhaps be given than the determination to utilize the work already accomplished by the Yellow-Fever Commission of the Public Health Association, and to make it the basis of future action by the board. Apropos to this remark, we may state that we learn for the first time what has been accomplished by that Yellow-Fever Commission during the past three months and up to the period when the majority of its members became members of the Board of Experts. At the time of the meeting of the American Public Health Association, the report of the Commission was one of progress only. As was to be expected, the Commission had no time nor opportunity for the digestion of the large number of facts bearing upon the cause and prevention of yellow fever, which had thus far been gathered. The report, at best, was but a presentation of facts without conclusions, a body without a skeleton.

No one who knew the men who composed the committee could think that they did justice to themselves, or the cause which they represented. Since the meeting in question, however, order has been brought out of chaos, the results of the investigation are being systematized, topographical and sanitary maps are being made, and a proper foundation is laid for an intelligent and comprehensive continuation of the investigation. Twenty-eight of the infected cities and towns have already been visited by the former Commission, and all important conditions and circumstances bearing upon the epidemic carefully studied, and the facts recorded. Inquiry has been made into the circumstances attending the appearance of the first cases of yellow fever in each of the places visited, and the connection, if any, between the first cases and those subsequently developed. This line of inquiry has been pursued with reference to "each case of fever which occurred up to the time when the disease became epidemic, or so prevalent in the place as to be no longer instructive."

These inquiries referred for the most part to local or foreign origin, to the conveyance of the contagious principle, to the effects of quarantine, to measures of disinfection, to local influences as affecting the severity of the disease, to measures of individual prophylaxis, to the modification of other diseases by the epidemic, and to any unusual forms of disease during the epidemic.

We are also informed that maps have been prepared showing the location of each case of yellow fever which occurred, "with distinctive marks for recoveries and deaths." For New Orleans, five such maps have been drawn, each one exhibiting an epoch in the epidemic.

Tables representing the leading features of all epidemics of the country, as compared with the epidemic of 1878, are also being prepared, showing "the date of the first imported and first refugee case, and of death; date of first case and of first death among inhabitants; the date of occurrence of the maximum number of cases in one day, and said maximum number; date of last case, total cases, total deaths, total population, and number of persons who fled."

It seems to us necessary that we should present the work of the former commission in more or less detail, in order that the intentions of the Board of Experts, in continuing the said work—and on such a basis enlarging its investigations—may be the better understood. Not only on this account do we take the opportunity for presenting these facts, but, as before intimated, for the additional reason that they for the first time have been given to the public, being part of the report of the sub-committee appointed by the Board of Experts to devise a plan of organization.

Aside, then, from making the work of the former Commission available, the Board of Experts intends to enlarge the scope of its inquiries in several directions. There is to be made, for instance, a careful study of the meteorological phenomena during and between the epidemics, of the geological conditions, character of soil, the forms of vegetable growth, of the existence of decaying vegetable matter, of the condition of the blood and excretions, and of the "effects of the yellow fever upon the health of the people following the epidemic." It is also considered important that experts should visit the West Indies and Mexico for the purpose of inquiring "into the causes which keep alive and propagate the yellow-fever poison in these countries, especially in Havana, from which place it is usually imported into the United States." In order

to systematize this work, the board divides itself into sub-committees for special lines of investigation.

It would appear that everything has been done to secure the best results. Congress has voted a liberal allowance of money, has invested the board with full power, and has so harmonized the interest of the past fever commission with those of the present by the appointment of Dr. Woodworth as its chairman, and by retaining the majority of the former members, that there leaves nothing to be desired in the way of effective organization. Aside from this, the board itself seems to be so thoroughly alive to the duties of the hour, and takes such a comprehensive view of the situation that it is difficult, if not impossible, to offer a new suggestion as to what more could be done.

THE PREVALENCE OF SCARLET FEVER, AND THE PUBLIC SCHOOLS.

For the past two weeks the cases of scarlet fever have been so numerous in some parts of the city that fears are entertained of an epidemic. The type of the disease is more malignant than it has been formerly, and the mortality is increasing accordingly. Diphtheria is also assuming a graver form, and the number of deaths are proportionately increased.

Of course the various means which should be used to check the spread of these diseases suggest themselves to every one. The Health Board is concerned as to what can be done in that direction. There is no doubt that extraordinary precautions have been taken to guard against the spread of either disease. Naturally we look to the public schools as the proper places in which an initiative may be taken. We cannot expect anything from the Board of Education; in fact, even with a disposition so to do, it would be entirely incompetent either to advise or direct as to the course to be pursued.

The Health Board should be competent in cases of emergency to include the public schools in its jurisdiction. There is no doubt that the diseases in question may be extensively propagated by means of school children who are either infected themselves, or who come from families in which the disease prevails. This appears to be inevitable. But the question which should concern the health authorities refers to the possibility of reducing the number of new cases to a minimum. The present system of reporting cases to the board and then to the school, is for the most part too slow. Generally by the time such reports reach the teacher, the scholar who carries the contagion has already infected his classmates. Sanitary inspection of the children in school, and of the sick absentees, would settle the question at once; but we cannot mention such a project with any hope while the present school board exists. The next best thing is for the Health Board to educate the teachers as to their duties in the premises, to instruct them regarding the initiatory symptoms of the maladies in question, so that the scholar who becomes ill shall be sent home at once. If such precautions could be taken, many might escape. Again, the teachers should be prevented from readmitting any scholar unless it is considered safe so to do by the family, dispensary, or hospital attendant. It is to be hoped, however, that the necessity for any unusual precautions will not show themselves.

THE STATE MEDICAL SOCIETY.

The approaching session of the New York State Medical Society, as is well known, will be the first one for several years that will be held in accordance with the laws that gave it a corporate existence. In the act of April 10, 1813, it was provided "that the Medical Society of the State of New York, and also the medical societies of the respective counties, shall and may agree upon and determine the times and places of their meeting; and the time so agreed upon shall forever thereafter be the anniversary day of holding their respective meetings."

In pursuance of this the State Society selected the first Tuesday of February as the day for their anniversary meeting, and the different county societies selected such other days as seemed most convenient. Subsequent legislation in 1818 and 1823 enabled the county societies to change the times for their annual meetings, but did not confer the same privilege on the State Society, which continued to hold its meetings at the appointed times, up to and including the year 1875. At the annual meeting in that year, held as is usual in February, a majority of the members seemed to think that a change to one of the summer months would be desirable, and the following resolution was adopted: "That a committee of three be appointed by the President to make application to the Legislature, now in session, for the purpose of changing the time of the annual meeting of the State Society from the first Tuesday of February to the third Tuesday in June.

After the transaction of other business the Society adjourned *sine die*. It does not appear from the published transactions that the committee referred to were appointed; at all events no change as to the time of meeting was authorized by the Legislature. In the following year, however, an act passed February, 1876, permitted the State Society to change from time to time the day of holding its annual meeting, "by a two-thirds vote of all the members present at any anniversary or annual meeting of said Society, provided that no such change shall be made unless notice of the intention to change the time of such annual meeting shall have been first given at a previous regular annual meeting. An entry on the minutes of said Society of notice of such intention to change the time of the annual meeting, and an entry on such minutes of the vote taken upon any motion made pursuant to

any such notice, shall be *prima facie* evidence of such notice, motion, and the vote had thereon respectively."

The Transactions of 1876 open with the statement that "The society met pursuant to statute in the Assembly Chamber of the Capitol, at Albany, at eleven o'clock A.M., June 20, 1876." *Pursuant to statute* in this connection is rather peculiar, as it certainly was not pursuant to the statute of 1813, nor the one of 1876, which requires, first, notice of intention to change, and second, a two-thirds vote in favor of change at a subsequent anniversary meeting. Neither of these requirements appear to have been fulfilled, for the resolution passed in February, 1875, appointing a committee to make application to the Legislature cannot properly be regarded as a requisite "notice," for the simple reason that the State Society did not then possess the legal power to give such notice.

The proper time, therefore, for the annual meeting of 1876, was February; but it does not appear from the Transactions that any meeting was held at that time. It is rumored, however, that a number of gentlemen gathered themselves together in the name of the State Society at the time at which it should have met, and there and then voted to hold the annual meeting in June. If such is the case, why have the minutes of this meeting been concealed or omitted from the Transactions? We are forced to the conclusion, therefore, that the June meeting in 1876 was *not* held pursuant to statute. The annual meeting of 1877 was also held in June, and at this meeting it was ordered, without any regard to the statute of February, 1876, that the next annual meeting be held in January, 1878. At this latter meeting it was clearly evident to the managers of the State Society that the meeting was illegal, and in order to rehabilitate the society, it was determined to transact the usual business, and to have it confirmed by a quorum which should meet in June following. As the previous June meetings were probably contrary to statute, so was this one; nevertheless, it confirmed the proceedings of the January meeting, and ordered that the next annual meeting be held on the first Tuesday of February, as was formerly the case.

The facts above stated would be of little consequence or interest were it not that the Medical Society of the State of New York possesses very important powers conferred by law, which enable it to exert a decided influence regarding the material welfare of the profession in the State. In many respects its authority over the county societies, and even of their individual members, is supreme; and the presumption is, that this authority will only be exercised for the general good of the profession and the public. If these ends are to be attained, and the powers of the State Society to be preserved, it is clearly necessary that all of its proceedings should be in accordance with the laws to which it owes its existence. If not thus protected, any malcontent can raise in the courts the question of its jurisdiction, and might in some events deprive it of its corporate rights. The ultimate responsibility for blunders of this sort naturally rests with the presiding officer, whose duty it is to be familiar with the laws pertaining to the duties of his office, and of the society over which he presides. We refer to the past as a warning for the future.

Reviews and Notices of Books.

ON REST AND PAIN. Lectures Delivered at the Royal College of Surgeons of England. By JOHN HILTON, F.R.S., F.R.C.S., etc., etc. Second Edition. Edited by W. H. A. JACOBSON, F.R.C.S., etc. Cloth, 8vo., pp. 299, with wood-cuts. New York: Wm. Wood & Co., 1878. Wood's Medical Library of Standard Medical Authors.

THIS is the first volume of the series of Wood's Medical Library of Standard Medical Authors, and aside from a notice of the work itself, invites a word or two of comment upon the plan of publication and what may probably be expected of it. It will be remembered that some time since, W. Wood & Co. announced their intention of reproducing in this country the works of standard medical authors abroad at the exceedingly low price of one dollar per volume. That they have done all that they have promised thus far cannot be questioned, as the work is well printed, contains nearly three hundred pages, and is substantially and handsomely bound. Except for the marked encouragement which has already been received, the placing of such a work upon the market at such a price would be simply impossible, if not ridiculous. As it is, the profession may congratulate itself that the scheme is successful, and that for a merely nominal sum the practitioner has within his reach twelve exceedingly valuable volumes by standard authors. We are assured that the greatest care will be exercised in the selection of the works, and if the present is an index of the works of the future, there need be no more fear of the character of the authors than there will be of the cheapness and satisfactory style of the publication. Hilton on Pain and Rest is a work which has such an established reputation, that it is unnecessary to give any extended notice of it.

PRESCRIPTION WRITING, designed for the use of medical students who have never studied Latin. By FRED. H. GERRISH, M.D. Pp. 51. Portland, 1878: Loring, Short & Harmon.

A MANUAL OF PRESCRIPTION WRITING. By MATTHEW D. MANN, A.M., M.D. Pp. 155. New York, 1878: G. P. Putnam's Sons.

THESE are both capital little books, each better than the other in certain respects. The first gives the usual rules for prescribing, and, in addition, a few easy lessons in Latin, including the declension of all the officinal names of the Pharmacopœia which the physician must know if he desires to write his prescriptions with accuracy. Besides these, there are many excellent practical hints of value to every one.

Dr. Mann's book gives the general rules for prescription writing, a little Latin, together with the principal words and phrases used in prescriptions, with their pronunciation and abbreviations. Following these is a complete list of all the officinal and many non-officinal drugs, with doses both Troy and

metric. The work concludes with chapters on the combination of drugs and on incompatibilities.

Our only regret is that both books were not written by the same author, or that in the future they cannot be bound together, as each is the complement of the other, and should be in the possession of every student and physician in the country.

THE ANTAGONISM OF THERAPEUTIC AGENTS, AND WHAT IT TEACHES. The essay awarded the Fothergillian Gold Medal of the London Medical Society for 1878. By J. MILNER FOTHERGILL, M.D., Edin., M.R.C.P.L., etc. 8vo, pp. 157. Philadelphia: Henry Lea. 1878.

THIS is another of those practical, charmingly written and valuable books which the distinguished author has given to the profession. Although a small volume, it contains a rich mine of not only facts, but suggestions. It is another contribution to the scientific explanation of the action of medicines (toxic), which, till of late, have only been used empirically. The seeker after scientific facts, upon which to base a rational and more or less precise treatment, will find within the covers of this small, unpretending volume a very "fair bird's-eye view of the subject of the antagonism of toxic agents, so far as this is possible at the present time." The author divides his subject into two parts: the experimental inquiry, and the practical inquiry. The agents considered are aconite, atropia, ammonia, calabar bean, caffeine, chloral, digitalis, morphia, picrotoxine, prussic acid, strychnia, and some others incidentally. In the first part, many of the experiments (condensed), and the conclusions of Preyer, Frazer, Edinburgh Committee of the British Medical Association (Professor J. Hughes Bennett, Chairman), Mac Kendrick, Crichton Browne, Haynes (Philadelphia), finally, the author himself, are presented. Wood, Bartholow, Harley, Ringer, Lauder Brunton, and others are also referred to, especially the first.

Hermann's view of the nervous system as "a liberating force," and the action of certain nerve-centres as the rhythmical discharges (Wundt) serves for the explanation of the action of drugs upon circulation, respiration, etc., making Chapter V. especially interesting and worthy of every medical man's careful perusal. We cannot go into details, the book must be read to thoroughly understand its practical bearings and suggestions. We may say, however, that herein is found a full *résumé* of the author's essay on "Digitalis: its Mode of Action, and its Uses," now out of print. We most heartily urge practitioners to avail themselves of the immense amount of truly scientific and practical knowledge which can be derived from the work under review.

TRANSACTIONS OF THE MASSACHUSETTS MEDICO LEGAL SOCIETY, Vol. I., No. I. Cambridge: Riverside Press. 1878.

THE members of this society have every reason to be proud of their labors in the year gone by, labors towards perfecting an excellent system, and accomplishing the great end at which they aim. Every righteous man cannot but rejoice in the abolishment of the coroner system in the Bay State, and would gladly hail its demolition in every State in the Union, in every civilized country. The contents of the pamphlet before us are:

1. The law abolishing the office of coroner and providing for medical examinations and inquests in cases of death by violence.

2. Constitution and by laws of the Massachusetts Medico-Legal Society.

3. Officers and members thereof.

4. An introductory address by the President, Alfred Hosmer, M.D., which points out the advantages to society which the new system of inquests and examinations will afford.

5. "The Relation which Chemistry Bears to Forensic Medicine," by Prof. E. S. Wood, M.D., is a short, though suggestive paper.

6. "The Value of Anatomical Appearances," by Prof. R. H. Fitz, M.D. As the author declares, "the object of the present paper is to refer very briefly to some of the general points to be borne in mind in making an autopsy, and to consider the group of changes found in a very common form of death—that from suffocation." This paper is a very valuable one.

7. "Concerning Coroners and the Theory and Practice of Inquests," by Theodore H. Tyndale, Esq., and

8. "The Work and Duties of the Medical Examiner," by F. W. Draper, M.D., two papers illustrating the new *versus* the old system.

9. "A Case of Arsenical Poisoning, with Fatty Degeneration of the Liver, Kidneys, and Gastric Glands," by J. G. Pinkham, M.D., a case of great interest, and remarks of considerable value.

10. Report of the Corresponding Secretary, including five full reports from medical examiners, which certainly should serve as models in recording inquests and examinations in cases of suspected violent death.

We cannot too forcibly urge our readers to peruse this little pamphlet, which so satisfactorily sets forth the immeasurable advantages of placing forensic medicine into the hands of specially educated and qualified medical men instead of coroners, as under the prevailing system.

PRACTICAL SURGERY: Including Surgical Dressings, Bandaging, Ligations, and Amputations. By J. EWING MEARS, M.D., Demonstrator of Surgery in Jeff. Med. Coll., etc., etc. 12mo, pp. 274, index, and 227 illustrations. Philadelphia: Lindsay & Blakiston. 1878.

THIS small volume contains a great deal of information upon the subjects of which it treats in a convenient and condensed form. Each division is well illustrated, thereby rendering the text doubly clear. Lister's "antiseptic dressings" are well described. The chapter on "Bandaging" is excellent; all the ordinary varieties, as well as Mayor's "handkerchief system," the starch, plaster-of-Paris, silica, and Sayre's suspension apparatus, are described and illustrated. "Ligations" are arranged under special heads for each artery, viz., Surgical Anatomy, Course, Surface Markings, General Relations, Guide, Structures to be Avoided, Operation. The illustrations of this subject are profuse and fairly good. "Amputations" is an equally good chapter. Especially useful are the representations of sections of the various extremities at different points, showing the structure.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1878. Indianapolis: Indianapolis Journal Co., Printers.

THE President, Dr. L. D. Waterman, delivered an address upon "State Preventive Medicine," in favor of placing the prevention of disease in the hands of specially educated men who shall be responsible to and presided over by the State. A long and interesting review of the legal conflict which lately occurred in Indiana, relative to the right of medical *experts* to demand and obtain [illegible] for their testimony as *experts* before giving such testimony or services, comes from Wilson Hobbs, M.D., under the heading of "The

Medical Witness." So far, we are glad to be able to say, the Supreme Court of Indiana has sustained the doctor's claim.

Dr. J. H. Hibberd, "Infantile Convulsions: What should be the Treatment during the Paroxysm?" contends that nothing further than protecting the child from self-injury, and giving a supply of air, should be done. Six cases of "Conservative Surgery," by L. Humphreys, M.D., and the "Report of Public Hygiene in Indiana," by Thad. M. Stevens, M.D. (Chairman), present nothing new or of special interest. The special interest in Dr. T. Fravel's article, "An Epidemic of Diphtheria," is found in his treatment of the disease. He has no great *faith* in the therapeutics, believing that very little beyond good nursing and hygienic measures is required, the fatality not being due to improper or inadequate treatment, but to the inherent individual impotence to throw off the impressions of the disease. The medicines used were: ℞. Potassæ permang., gr. iv.; Aquæ font., f. ʒ iv., M. Sig. Teaspoonful every two hours, day and night, alternated with a teaspoonful of the following: ℞. Ext. belladon. fl., gtt. viij.; Aquæ font., f. ʒ iv. The following gargle was used each hour between the above doses: ℞. Potassæ chlorat., ʒ ij.: Sodæ hyposulphit., ʒ ij.; Sodii chlorid., ʒ i.; Tr. capsici, f. ʒ (or alcohol, f. ℥ ij.); Aquæ font., f. ℥ vi. M. The throat was cleansed with warm water each time before using the gargle, and nothing taken into the mouth sooner than ten minutes afterward. "Topically I applied once in twenty-four hours equal parts of a strong solution of tannic acid and tinc. mur. iron. When the Schneiderian membrane was involved, I passed through the nostrils, once in three hours, by means of a nasal douche, from four to five ounces of a solution of permanganate potassa in very warm water, three grains to the pint. Milk and animal broths were freely given throughout the disease. In cases of very young children, eighteen months old and under, nothing but the potassæ and belladonna were used, and recovery followed as speedily as with the gargle and local treatment." The above formulæ are of the right proportions for children; for adults they might be increased. John S. Dare, M.D., claims that "nasal catarrh" is, in its *chronic* stage, *infectious;* not always, but in many cases.

Thos. J. Dills, M. D., reports a case of "Graves' Disease," in which he found large doses of digitalis especially useful. "On the Ætiology and Treatment of Unavoidable Hæmorrhage," and "Placenta Prævia," by G. W. Mears, M.D., and George Sutton, M.D., respectively, are two papers of practical interest. In the former the tampon, till the full dilatation of the os (the *membranes remaining unruptured*), with subsequent natural or instrumental delivery, is strenuously advocated as the best treatment. The best tampon is a sponge saturated with persulphate, perchloride, or pernitrate of iron, with charpie packing beneath, all applied through a speculum, says the author. This treatment is only applicable to the *unavoidable* variety, namely, that occurring *during* labor, and due to a separation of the placenta consequent upon dilatation of the cervix and os, and *when the membranes remain unruptured.* Dr. Sutton, however, would prefer to rely upon *forcible digital* (or by the aid of water-bags) *dilatation,* and, in certain cases, even *free incisions of the cervix,* followed by podalic version.

Two short papers, "An Epidemic of Small-Pox," by W. W. Blair, M.D., and "Upward Dislocation of the Sternal End of the Clavicle," by Joseph Eastman, M.D., the minutes of the transactions, and a list of members, close this interesting volume.

HORSEBACK RIDING FROM A MEDICAL POINT OF VIEW. By GHISLANDI DURANT, M.D., Ph.D., etc. Royal 12mo, pp. 137. New York: Cassell, Petter & Galpin. 1878.

THE first thing which astonishes the reader is how the author of this work could extend such a subject as this over 137 pages; but it is soon evident that the title is only partly appropriate, good as far as it goes, since metaphysics, history, physics, physiology, etc., are all thrown into the first chapter comprising only fifteen pages. The effects of exercise, the minutest details of the mechanism of horseback riding, the physiological effects of the same exercise on the animal economy, special and general, its therapeutical and hygienic effects, and, finally, "the origin and progress of horse-racing," are all treated of in so many distinct chapters. Dr. Durant undoubtedly believes horseback riding to be a most wonderful and potent remedy, when he says that syphilis "can be benefited by horseback riding. Nothing is more true, however." Altogether the work, although readable and interesting, is apparently written as much to give the author's views upon a wide range of medical subjects as for any other purpose. From a practical point of view the work has no special value.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. January, 1878. Boston: Rand, Avery & Co., Printers to the Commonwealth. 1878.

LIKE its predecessors, this report is a model of excellence, industry, and practical worth. Among the excellent papers in this volume, we would call attention first to that on "Drainage and Health; Sewerage and Pollution of Streams, including a Draft of a Law." "Cottage Hospitals" is the title of an interesting paper by Dr. J. F. A. Adams, of Pittsfield. All who are interested in "Dangers from Color-Blindness" will find Dr. B. Joy Jeffries' (of Boston) paper interesting. He adds *seven* pages of bibliography to the paper proper. The importance of the "Filtration of Potable Water" receives due attention from Prof. Wm. Ripley Nichols, M.D. "Sanitation of Public Schools in Massachusetts," by D. F. Lincoln, M.D., should be carefully perused. A highly valuable article on "Scarlet Fever" is from the pen of A. H. Johnson, M.D. The description and drawings of the disinfecting establishment (hot-air) in operation in Liverpool, England, makes this paper doubly valuable.

The relation of drainage to diphtheria, typhoid fever, etc., closes this valuable contribution to State medicine.

THE PATHOLOGICAL ANATOMY OF THE EAR. By Prof. HERMANN SCHWARTZE, M.D. Translated by J. ORNE GREEN, M.D. Boston: Houghton, Osgood & Co.

THIS small book of 174 pages is, as the translator states in his preface, "the only comprehensive work strictly devoted to the pathological anatomy of this organ" (the ear). It is a carefully prepared catalogue of all the pathological changes that are known to have taken place in the ear. In many portions it is more than this; the actual pathology of the disease is described, its relative frequency is stated, and full references are given to the sources from which the information has been gathered.

The beginner will perhaps find the book a little dry, but to those who have occasion to treat diseases of the ear it will prove a most useful work of reference, enabling them to interpret rightly the different pathological states which from time to time come

under observation. Individual theories occupy a minimum of space in the book, while the firmly established pathological facts are set forth in clear and simple language. The translation has been well done. Numerous woodcuts aid in elucidating the text, and the typographical work is excellent.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Vol VII. Edited by J. HENRY C. SIMES, M.D. Philadelphia: J. B. Lippincott & Co. 1878.

THIS handsomely-bound and printed volume is a valuable contribution to pathology. The subject-matter is arranged under appropriate headings, such a classification materially adding to the convenience of reference. Each report is as concise as a proper presentation of the case or specimen would allow. The work opens with some interesting reports of lesions of the osseous system. Especially worthy of notice is Art. 8: "Intracapsular Fracture of the Femur—Thrombosis of the Left Femoral Vein Extending to the Vena Cava," by Dr. J. C. Wilson. Quite a number of cases of cancer of the digestive organs are recorded. "Case of Mitral, Tricuspid, and Aortic Disease, with Pulsation of the Liver, and Pericardial Adhesions," by Dr. John Guitéras, is of special interest *per se*, and on account of the remarks made upon the case. Dr. James H. Hutchinson gives an account of a very interesting case of "Interstitial Nephritis, in which there were Marked Retinal Changes, Pericarditis, and Pericardial Effusion." We must call special attention to "Specimens Illustrating a Case of Extra-Uterine Pregnancy," by Dr. Frederick P. Henry, which is illustrated by two very fair drawings by Dr. C. B. Nancrede. This was of the abdominal form of ectopic gestation. Dr. E. O. Shakespeare gives quite a long account of the histological appearances of the specimens.

Another case and specimen of abdominal pregnancy is here presented by Dr. Wm. Pepper, also illustrated by two woodcuts from the same draughtsman. Both these cases are of considerable importance and practical interest.

A case of "Elephantiasis of the Penis" is reported by Dr. F. Duffy, of Newbern, N. C. Some very practical remarks are made by Dr. Harrison Allen upon "The Anatomy of the Cerebrum."

A case of "Cerebral Abscess and Dilated Bronchi," by Dr. J. H. Hutchinson, will bear careful study on the part of our readers. The history and autopsy are detailed at length, the diagnosis was particularly shrouded in obscurity, and the remarks of Drs. Pepper and Allen are of interest.

Dr. Morris Longstreth calls attention to the advantages of Prof. Wm. Rutherford's freezing microtome.

An excellent article by Dr. Charles B. Nancrede, on the pathology of malignant morbid growth, concludes this interesting work. We have only mentioned the few more important papers (as they seem to us) of this volume, and have given but a faint idea of its value. We recommend all those interested in the subject of pathology to add this handsome book to their collection.

PILL COATING. The process of pill coating of M. Rupin (reported to the Academy in 1837), namely, by a layer of *gluten*, is said to be superior to that by gelatine, since the pills or capsules pass by the saliva and gastric juice unaltered, to be acted upon by the intestinal juices, through absorption taking place. Such remedies as oils of copaiva, turpentine, etc., are not, therefore, eructated.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 19, 1878.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

THE OPERATION FOR LACERATION OF THE CERVIX UTERI, OR THE INDICATION FOR HYSTERO-TRACHELORRHAPHY.

DR. PAUL F. MUNDÉ read an interesting paper upon the above subject, of which the following is a brief abstract:

Reference was first made to the history of the operation. Papers descriptive of the lesion and its operative cure had been written by Emmet, Pallen, Wing, Baker, Breisky, Dudley, and others, and upon careful perusal of them, with their accompanying diagrams, Dr. Mundé was confirmed in the impression that all those authors had written only of *complete* laceration or fissure of the cervix, either unilateral or bilateral, with a rolling out of the lips of the cervix up to the vaginal reflection; the cervix presenting the appearance of an eroded surface two inches or more in diameter.

Those were the typical cases of the lesion, and no experienced and unprejudiced observer could, at the present day, entertain a particle of doubt regarding the efficacy of Dr. Emmet's operation and method of treatment. But so uniform as was the acceptance, by all the initiated, of Emmet's operation for those graver forms of the lesion, even so greatly divided did the profession still seem to stand with reference to the exact point when a laceration and erosion of the cervix required operation, and when it was still curable by topical applications, such as astringents, caustics, or cautery. The uncertainty was not confined to *medical* gynæcologists proper, but even some of the leading uterine surgeons had expressed the opinion that the minor degrees of laceration and erosion did not require operation, as they were too insignificant to be productive of evil, or could be cured by mild astringents. On this point Dr. Mundé referred to the protest which Dr. Chadwick, of Boston, had made against the impression unintentionally conveyed by Dr. Wing, that these lesions were curable only by operation.

Further reference was made to views entertained by Drs. Barker and Jacobi, of New York, as published in the MEDICAL RECORD. (See pp. 193–196, Vol. XIII., 1878.)

In Europe, with but few exceptions, the existence of laceration or fissure of the cervix as a distinct lesion, requiring recognition and treatment, appeared scarcely to have dawned upon the profession. With almost wilful neglect, it would seem all mention of the affection was omitted in the two latest books on gynæcology, Barnes and Leblond. While the author of the paper admitted that slight laceration or nick of the cervix, without ectropium, and with normal mucous surfaces—or even deep fissures without eversion—or deep lacerations with eversion, but with the whole everted cervical mucosa cicatrized and smooth, in no wise called for operation or other interference (except there was cervical neuralgia from inclusion of nerve-filaments in the cicatrix), yet his experience decidedly warranted him in claiming that there were numerous cases of minor degrees of cervical laceration and eversion in which the plastic operation was

the most safe, sure, and rapid therapeutic measure for the relief of the local disease. The cases were classified as follows:

1. Slight lacerations, which ordinarily gave no trouble whatever, but in which, under the influence of friction against the posterior vaginal wall (the uterus often being subinvoluted and depressed), the trivial ectropium became a profusely secreting ulcer, gradually spreading into the cervical canal, and producing the familiar muco purulent tenacious plug projecting from the fissured os.

2. Slight lacerations, perhaps not ulcerated, and non-productive in themselves of local disturbance, but still acting through the gaping and everted os, as chronic feeders of the subinvolution and hyperplasia, against which we all acknowledged our boasted therapeutics, local and constitutional, to be ordinarily of little avail.

3. Cases of hyperplastic or cystic ectropium of one lip in which a raw, ulcerated surface, often one-half to one inch in diameter, took the place of the lip. To excise that redundant and useless piece of tissue, slightly pare the edges of the broad cervix, and restore the normal transverse os, was certainly a much neater way of curing the difficulty than by the tedious cautery.

4. Cases of laceration of the endocervical mucous membrane, with comparatively slight injury to the border of the os, which, however, was patulous and funnel-shaped, often admitting the point of the index finger, and frequently everted and eroded (Barnes, Fig. 117). The gaping os was usually filled with a muco-purulent, tenacious plug, the result of endocervicitis from exposure, and the patient complained of the symptoms peculiar to that condition. There also the strong caustics failed, or were tedious.

5. We were all familiar with the difficulty experienced in curing large granular and follicular erosions of the cervix by caustics. Why not, then, hasten the cure by removing the diseased mucous membrane, and uniting the healthy edges by sutures, as was done in Emmet's operation? He was confident much time could thus be saved.

Dr. Mundé did not deny the statement that the majority of *fresh* cervical lacerations would get well merely with cleanliness and the recumbent posture, nor that many cases could be cured by the treatment advocated by Drs. Barker and Jacobi; but he would ask, What was the advantage of subjecting patients to a treatment extending over weeks and months, and confinement to a recumbent posture for two or three weeks, enlivening the monotony of that course by the occasional application of the actual cautery, when all that could be obtained (the wound closed, the cervix restored to its normal shape, and the uterus certainly diminished *somewhat* in size) after less than two weeks' confinement in bed by an almost entirely safe, simple, and comparatively painless operation?

That the operation was comparatively devoid of danger had been shown by the statistics of the New York Woman's Hospital. That the operation occasionally failed was true, but failure was chiefly due to the lack of preparatory treatment, to insufficient paring and careless adaptation of the wounded surfaces, and to influences not under the control of the surgeon. A second operation usually cured the case.

During the past year he had twice performed the operation for lacerations, in both of which cases the indication was not the *extent* of the injury, but the irritation exerted on the hyperplastic uterus by the friction of the everted surfaces, and the beneficial influence to be expected for the reduction of the enlargement. Those indications were confirmed by Dr. Thomas, who saw the ladies with him in consultation.

After giving the history of the two cases mentioned, Dr. Mundé stated that the object of his paper was to demonstrate, not that *every* laceration of the cervix should be operated upon as a duty, for he believed that a certain proportion of those lesions either did not require any treatment, because they produced no symptoms, or, in a lesser proportion, were amenable to caustic and astringent applications—but that there was a very large class of cases in which the operation was called for, not by the extent of the injury, but by the symptoms which it produced and the pathological conditions which it aggravated or maintained. Those cases have been stated above.

He further thought that we should soon be able to operate on those slighter cases of laceration and eversion at our offices or at the Dispensary, send them home by the cars, and let them go about their ordinary avocations (avoiding unusual exposure, of course), to return for the removal of the stitches at the end of a week. The absence of etherization, and the use of silk instead of wire, materially simplified and shortened the operation. When it had once been demonstrated that that plan was followed by success as regarded union, then the great objection to the operation among the poorer classes—the confinement to bed—would be removed, and old cases of cervical ectropium should disappear from our clinics. Still, he considered the recumbent position during convalescence as a most important factor for the ultimate results of the operation, and one always to be insisted upon when feasible.

In conclusion, Dr. Mundé referred to the experience upon which his remarks and conclusions were based. The percentage of lacerations observed by him at the out-door department of the Mt. Sinai Hospital during the last two years was 17 per cent., and served to illustrate very aptly a remark made by Dr. Barker, on the occasion above mentioned, "that the lesion occurred with vastly greater frequency in persons who had had neither skilled obstetrical attendants nor the care and rest required after confinement, since in his own practice, confined to the more wealthy classes, he had met with this accident in but two well-marked cases."

That the high percentage was not accidental or confined to the class of patients which appeared at the hospital, was confirmed by the experience of Dr. Goodell, of Philadelphia, who inferred that about one out of every six women suffering from uterine trouble had an ununited laceration of the cervix.

The paper was illustrated by colored plates of the various forms and degrees of laceration and ectropium of the cervix uteri, prepared from nature by Dr. A. H. Friedenberg, House-Physician to Mt. Sinai Hospital.

The paper being before the Academy for discussion,

Dr. T. A. Emmet remarked, with reference to the frequency with which the lesion occurred, that, as well as he could recollect, in about 34 or 35 per cent. of all the cases of uterine trouble he had seen since 1862, he had recognized laceration of the cervix. He was disposed to take exception to the statement that the lesion was found most commonly among the poor, for in his private practice, which he supposed was among as good a class of people as the average practitioner obtained in his department, he had seen the lesion more frequently than in the Woman's Hospital, if those cases were included in which delivery was made by instruments.

There were only certain conditions of laceration o the cervix which called for operative interference, for he supposed that the cervix uteri of every woman,

with the birth of her first child at least, was more or less lacerated during parturition. If the laceration took place from before backward, or deviating from that somewhat, it usually healed before a month was passed, and gave no trouble.

It was only when the laceration was lateral, so that involution was arrested and the uterus laid upon the floor of the pelvis, the posterior flap getting into the cul-de-sac and the anterior sliding forward into the axis of the vagina, thus producing gaping and keeping up hypertrophy, that the operation was required. In such cases there probably was no relief, except by operation, or filling the gape with cicatricial tissue by the work of nature.

Dr. Emmet wished to lay special stress upon that point. At the time he wrote his last paper he supposed the eversion was the chief cause of the difficulty; but he now regarded it as the least. There were conditions in which the flaps gaped like the separation of two fingers, and nature would attempt to fill that gape with granulations. She might so succeed that only a slight rolling out of the tissues of the cervix could be seen, a condition which had been regarded as too slight to require interference. But those were the cases which required the operation even more than those in which eversion was a prominent symptom, and for the following reason.

When the gape was partially filled with cicatricial tissue, the circulation was obstructed and would remain so until such tissue was removed. If, therefore, the edges were denuded and brought together over the cicatricial plug, even though union might occur, cure would not be effected, and the woman would remain an invalid. In fact, the uterus would increase in size, or absorption take place, and the operation fail.

With regard to the cicatricial tissue, when it nearly filled the gape, most operators would say that an operation was uncalled for, recognizing the necessity for an operation simply by the fact that the edges of the fissure were rolled out, and not recognizing the necessity of removing that plug. The cervix was poor in blood vessels and nerves, but it was covered with erectile tissue in which were found fibres of the sympathetic system, and the sympathetic nerves presided over nutrition as well as over the organs of generation during the menstrual period, say from the age of fifteen to forty-five.

Dr. Emmet held that the cicatricial tissue there was a source of irritation, apart from the gaping, and apart from its effect upon nutrition, and consequently it gave rise to excessive anæmia, which continued until the woman ceased to menstruate. The anæmia was persistent, and at the change of life nature went to work, to set the house in order as it were, and absorbed all that cicatricial tissue, and put the uterus in a condition in which it might rest quiescent for the remainder of life.

Very often nature was not competent to bring about absorption of the cicatricial tissue, and then followed a development of epithelioma. Dr. Emmet felt satisfied that such result obtained, although he was not able to prove his position. He believed that epithelioma of the cervix uteri always arose from an unsuccessful effort on the part of nature to remove such cicatricial tissue. He took that view from the fact that of eighty or ninety cases of malignant disease of the cervix which he had collected, there was only one occurring in a woman who had not been impregnated, and he had not seen any one who could say that he had seen such a case.

The histories, almost without exception, dated back to some labor of unusual severity and delivery by instruments, and the natural inference was, that in such cases laceration of the cervix had occurred. In some of the cases laceration had been recognized years before they came under Dr. Emmet's observation; in most instances, however, it was not recognized.

Dr. Emmet further remarked, he had always held that the operation was the last resort, and not that every case should be operated upon. The operation was simply for the purpose of keeping what was obtained by other treatment. The woman should be put into the best possible condition, and then, in extreme cases, if the operation was performed, the woman was cured permanently.

Dr. Chamberlain expressed his concurrence with the statement of the paper that, even if the visible lesions of eversion, hyperplasia, cystic degeneration, etc., were in many cases curable without the operation; yet if they were more quickly, certainly, and completely cured by the operation, as he believed they often were, then the operation was expedient and to be advised. In the minor cases of comparatively recent laceration, it was so easy and so little painful or dangerous, that there was no valid argument against it. It was not an operation of mutilation, but of repair.

Like Dr. Mundé, he had twice done it without the aid of an anæsthetic.

It was constantly done so as to be free from any constitutional reaction. There were one or two points in the technique to which he alluded, and although they might not be original with him, yet he had not seen them mentioned in print or known of their employment by others.

The greatest difficulty which he had experienced was in making sufficiently thorough excision of the angle at the bottom of the fissures. When all the tissues were oozing, it was difficult to be certain that there was not left some band or island of mucous surface undenuded.

That difficulty was greater in proportion as we operate high up in the vagina, and less in proportion as the cervix was brought down near the outlet.

In order to obtain full control of the uterus, he had, in bilateral laceration, sometimes passed a wire deeply through the cervix on either side, leaving between the two an interval corresponding to his idea of the proper size of the cervical cavity. Those wires were made to pass so deep as not to emerge in the fissure, but could be uncovered by a slight incision of the floor of the fissure. When so found, the wire was caught with a tenaculum, and a long loop pulled up from the bottom of the fissure. Those loops were then cut, and thus we had a loop in the anterior and another in the posterior lip on either side of the cervical canal. Thus the cervix might be easily drawn down to the vulva, the speculum become unnecessary, and every portion of the fissure, successively, might be made to present and kept perfectly steady until it was denuded. When that was done, the wires were joined where they had been cut, the loop was drawn straight, and thus the two first and most important stitches were placed just where they should be. As many more as were needed were then easily passed on either side.

He also mentioned an observation on the physiology of the changes which occurred in these cases. He had very constantly noted that, if the curve of the lines of fissure was upward, then the eversion and the hyperplasia was of the anterior lip; if downward, of the posterior. That meant, he thought, that the derangements of nutrition affected that portion of the cervix in which the circulation had been most impaired.

Dr. Gillette thought it important to consider how these lacerations could be prevented, and believed that we had reached a period in the study of the injury which permitted us with propriety to consider that question. Undoubtedly laceration of the cervix in the parous woman was a physiological condition up to the degree which was short of eversion of the cervix, or of that hyperplastic condition described by Dr. Emmet.

The operation had become so popular, and was so easily performed, that in his experience it was being done in cases in which there was no real necessity for it. It was the habit of some physicians to sew up every lacerated cervix which could be discovered, without regard to pathological phenomena associated with it. He thought that a warning voice should be lifted and a line of distinction be drawn as to when the operation should be performed, and in that respect the author of the paper had made a valuable suggestion.

In some instances he had known of the operation being done immediately after delivery, and practically he was not able to see why it should not be done at once. We did not hesitate to close a lacerated perineum at once, and why we did not do the same with a lacerated cervix was probably because we did not take the time or were afraid of the consequences. Whether it was an advisable operation or not, at that time, he was not willing to say from his own observation or from what he had heard, but he thought it was worthy of trial. It had occurred to him that if the plastic operation could not be performed, perhaps some instrument could be devised which would hold the lacerated surfaces in contact. According to the suggestion made by Dr. Emmet, and subsequently by Dr. Skene, he had used what was known as the preparatory stitch in cases in which rapid absorption of the hyperplastic tissue could not be obtained; but in instances in which there was considerable eversion and hypertrophy, the stitch was apt to tear out.

Recently he had resorted to a rather novel method of treatment, which consisted in seizing the torn cervix with two tenacula, drawing the lacerated surfaces together, and then slipping over the handles and around the cervix an ordinary rubber strap. One week afterwards he found that the compression made by the band had acted in a very favorable manner. From his experience in that case it had occurred to him that, perhaps, a bandage which could be used in recent lacerations might be constructed. At all events, he felt inclined to determine whether it was safe to try to cure these lacerations during the puerperal period.

Dr. H. T. Hanks remarked that he had been specially interested in the statistics given by Dr. Mundé, for he had found by consulting the books in his department at the Demilt Dispensary, that the percentage of cases of laceration of the cervix was less than it was when he gave it at the time Dr. Emmet read his second paper. Of 881 women treated in that institution for diseases peculiar to the sex, only about *six* per cent. suffered from laceration of the cervix. When he made his former report, the percentage was between *eight and nine* per cent. The subsequent reduced percentage he ascribed to the fact that young physicians had kept their patients in bed after confinement, and taken better care of them than formerly. In that particular the teaching had been more careful than formerly. Consequently, the lesion had partially or wholly cured itself before the woman assumed a position which favored its continuation.

Dr. Hanks also thought that the remarks made by Drs. Barker and Jacobi, and already alluded to, had had an excellent effect, although at the time he was opposed to some of their conclusions. For he was certain that he had operated in some cases in which the patient was not placed in a proper condition by preparatory treatment, notwithstanding Dr. Emmet had justly called attention to that special point. The doctor also thought that we should know, as suggested by Dr. Gillette, if there was not some way to prevent the occurrence of the laceration. In this connection he believed that when the young men were taught to interfere less with the cervix during labor, we should have a less number of lacerations. If that was a fact, we should understand it, and bring it into daily application.

Again, in cases in which it was known that laceration of the cervix was present, it was well, after the fifth, sixth, or seventh day, to insist that the woman should lie prone instead of retaining the dorsal decubitus. For, by so doing, the lacerated cervix would be prevented from brushing the floor of the vagina, and thus the tendency to eversion could be prevented.

Dr. Gillette remarked that he did not think management of the first stage of labor could be regarded as a factor in the diminution of the percentage of cases of laceration of the cervix. For the lesion was much more frequent a few years ago than now, but the usual teaching then was to do nothing in the first stage of labor. As he understood the subject it was the teaching of the present time to hasten labor by proper manipulation for the purpose of facilitating dilatation of the cervix.

Dr. Emmet's views upon the question were asked for, and he replied that he was unable to answer the question from any personal experience. He was satisfied, however, that with proper care a great many of these cases could be prevented from coming to a surgeon for an operation. For if the precaution was taken to wash out the uterine cavity after any difficult labor, and to use hot water freely so as to cause the uterus to contract more than it would naturally do in those cases, the result, doubtless, would be that in a large proportion the laceration would heal which otherwise would make the woman an invalid for years.

Without personal experience regarding the effect of hot water upon a lacerated cervix, he reasoned thus, by knowing what effect could be produced upon diseased tissue by that agent.

Reference was made to cases of vesico-vaginal fistula of large size which had closed without any treatment save cleanliness secured by vaginal injection of hot water, and he believed that if such precaution was taken after labor the number of cases of laceration of the cervix, and other conditions, would be very much diminished.

In closing the discussion,

Dr. Mundé remarked, that it was not his object in his paper to consider questions which had already been thoroughly discussed with reference either to pathology or to treatment. His object was simply to bring out certain indications which had not yet been presented for discussion.

He regarded the suggestion made by Dr. Chamberlain as an excellent one, and was quite sure that he had seen Dr. Thomas manipulate in very much the same manner, except that he took only one lip. Dr. Goodell, of Philadelphia, had also spoken of the same manipulation.

With reference to Dr. Gillette's suggestion concerning the use of a rubber band, he thought it would be an excellent aid in the treatment of old lacerations, but he was not able to understand how it could be

employed immediately after confinement; for, if applied loosely, it would slip off from the cervix, and if applied tightly it would interfere with free discharge of the lochia. He also thought that an operation immediately after confinement would not be practicable, except, perhaps, in hospital practice.

The Academy then adjourned.

Correspondence.

THE PUBLIC HEALTH ASSOCIATION AND YELLOW FEVER.

To the Editor of The Medical Record.

Sir:—The influence which the recent meeting of the American Public Health Association is to have upon the future history of yellow fever, and upon medical opinion concerning the etiology of the disease, cannot at present be predicted, but it is to be hoped that the large and well-selected committee appointed may prove to be, as they ought to be, a controlling power so far as national legislation is concerned. That national legislation is urgently demanded, both by public sentiment and by the lamentable experience gained in the past at the expense of thousands of lives and millions of money, is, I think, the firm conviction of a large majority of those who were present at the Richmond meeting of the Association.

Dr. Choppin, the distinguished President of the Board of Health of Louisiana, who, from his experience and official position, speaks with an authority second to that of no other man in the United States, has the courage to use the following language in his report upon the recent epidemic in New Orleans:

"We in Louisiana, operating under a quarantine law not absolute in its restrictions, after an earnest effort in executing it, conducted with all the honesty and energy at our command, assisted by incorruptible quarantine officials, have utterly failed in preventing the importation of the pestilence which has thrown gloom and sorrow over our whole Southwestern Valley. No *conditional* quarantine can ever be made effective, because, first, of the laxity with which laws are unfortunately executed in this country; and secondly, because of the cupidity of commercial interests at stake, which will always move heaven and earth to evade successfully all quarantine laws and regulations."

I think I may safely say that a large majority of the members and delegates present agreed upon this practical point, viz.: that yellow fever in the United States *usually* results from the importation of *cases* or *fomites*, and that such importation can be prevented by *proper* quarantine restrictions. I think it is even safe to say that a majority were of the opinion that yellow fever *never* originates in the United States; but no vote having been taken upon the proposition, formulated by a committee, which embodies this view, I cannot be sure that I am right. The objection made to submitting this question to a vote was that the Yellow-Fever Commission had not yet completed its labors, and it was suggested that the discussion of the question be postponed for one year. This would have been a very proper suggestion if yellow fever had appeared in the United States for the first time in 1878; but the epidemic of 1878 is, unfortunately, only one of many, and counts no more in settling this question than an outbreak of which the victims can be counted on the fingers. The literature of yellow fever is rather extensive, and many of those present at Richmond had witnessed numerous epidemics. We had listened to Dr. Choppin's able paper giving a clear account of importation to New Orleans in May of the present year; could we not, then, have been allowed to express our opinions in regard to this matter? Never in the history of the country has there been an assemblage of men so well qualified to give an opinion upon this subject; but they were not to give expression to their opinions because the Yellow-Fever Commission had not completed its labors.

I regret very much that the late hour at which this proposition came up for discussion made it necessary to accept a compromise amendment, which restricted the expression of opinion to a belief in importation, for the present year. I regret it chiefly because it gives color to the prevalent popular belief that the doctors know little or nothing about yellow fever, and that the late epidemic has upset all preconceived theories and opinions, and left us all afloat. Now, I claim that the etiology of yellow fever is as well settled as is that of typhoid or remittent fever, and that those in and out of the profession who are still in doubt as to how epidemics of yellow fever originate and progress may obtain reliable information upon the subject by consulting such standard medical works as Flint's Practice, Ziemssen's Cyclopædia, and Reynolds's System of Medicine. All of these works give about the same account of this matter—an account which agrees with the facts and with the opinions of the best informed physicians in latitudes where the disease frequently prevails. Prof. Flint sums up our knowledge of the etiology of yellow fever as follows:

"To sum up the most important points relating to the causation, an unknown special cause—a poisonous miasm—is involved; the doctrine that this special cause is reproduced within the body does not rest upon adequate proof; the special cause demands for its development or efficiency conditions peculiar to certain localities, and a high temperature is an essential condition. Auxiliary causes which exist, especially in cities or large towns, exert a powerful agency in the production and perpetuation of the disease, and by the removal of auxiliary causes, epidemics may be prevented or divested of much of their fatality. Finally, the special cause may be transported by means of infected vessels, or fomites, and, in conjunction with a high temperature and auxiliary causes, the disease may prevail in places where it is not indigenous."

This is, I think, as clear and definite a statement as can be made concerning the etiology of the more familiar diseases above mentioned. I heard nothing at Richmond which will, in my opinion, make it necessary for Prof. Flint to make any change in the wording of this summary, and, so far as I can learn, the epidemic of 1878 does not materially differ, except in extent, from those which have preceded it.

In a recent number of the London *Lancet* (October 1878), Dr. Robert Lawson, Inspector-General of Hospitals in the British army, makes the following sensible remarks:

"It is worthy of observation that the great majority of the members of the profession who have resided some years in the tropics, and had constant experience of yellow fever, entertain the first opinion (that it arises from local causes, and not from personal contagion), and it is only among those who have met the disease occasionally, or who have never been brought in contact with it, that the second is generally re-

ceived (personal contagion). It is not creditable to the medical profession that this question remains so undefined . . . . ."

In the same paper Dr. Lawson gives the following instructive account of an outbreak of the disease on the ship Isis at Sierra Leone: "In 1865 yellow fever prevailed at Sierra Leone, and the Isis, receiving ship, which had been there some years, had several cases on board, of which the last two were attacked on the 16th and 18th of December, respectively, and both died on the 21st. A few days after, H. M. S. Bristol, with a crew of 535, arrived from England, and instead of running up to Freetown as usual, anchored in the open sea five miles from that place. It having been considered that the position of the Isis was unhealthy, a party of four officers and 112 men were sent from the Bristol on the 28th and 29th of December, to remove her to a healthier one. The party returned to the Bristol each night without going on shore. Fever commenced among the men of this party on the 31st December, and, up to January 6th, thirty-seven were attacked, and there was another on January 12th, the last which occurred. Of these 21 died on board from January 3d to January 10th, and two subsequently at Ascension. Twenty-nine cases were classed as yellow fever and nine as remittent. In the former the urine was highly albuminous in every case in which it was examined, loaded with tube-casts, epithelium, and blood-cells, and black vomit was frequent, which conditions, as well as the rapid course of the disease and its enormous mortality, stamped it as malignant yellow fever. Two officers and one man of the Bristol, not of the working party, also went on board the Isis, and subsequently had fever. *All the attacks occurred in the Bristol, but no one suffered who had not been on board the Isis.* The best measures the circumstances permitted were taken to limit the exposure of the healthy among the Bristol's crew to the emanations from the sick, but five medical officers, and twenty-four men employed as nurses, were in constant and close communication with them, and fully exposed to whatever chances of contracting the disease these circumstances might involve."

This is but one of thousands of examples which prove clearly that yellow fever is contracted, not from the sick, but by exposure to an infected locality.

The facts observed and recorded by myself for four minor epidemics fully support this statement, and the matter is so thoroughly settled that in future investigations, it seems to me, we should turn our attention to the discovery of the unknown special cause and to careful estimates of the comparative value of the auxiliary causes, with reference to the exclusion of the former, and, so far as practicable, the removal of the latter.

GEO. M. STERNBERG,
Surgeon, U.S.A.

FORT WALLA WALLA, W. T., Dec. 18, 1878.

CYSTITIS AND THE USE OF ACIDULATED WATER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Noticing in your issue of December 28th a communication from the hands of Dr. W. H. Bramblett, of Newbern, Va., on the treatment of "atony," and "dilatation of the bladder," "cystitis," etc., with cure of two cases from the use of "acidulated water," made by the addition of cider vinegar to a quantity of cold spring water of "about 75° to 80° F.," etc. The writer seems to find fault with Dr. Van Buren, while he apparently lays himself open to a similar charge, in not stating the quantity of cider vinegar used in proportion to the four ounces of water. We would like to be informed on these two points; as also, where he obtained "cold spring or branch water" at a temperature of 70° or 80° F.?—(was the water first warmed?)

In conclusion, we would suggest a query in regard to the antiseptic properties of cider vinegar. Is not the action of the agent here used, namely, cider vinegar, rather a *chemical* than a *medicinal* one? Is not the ammoniacal state of the urine an alkaline condition, and does not the acetic acid contained in the cider vinegar neutralize the ammoniacal condition, and thus remove the exciting cause? This method of treating, and rousing up the latent energy of the organ, has been known to the writer for many years; and also the simple cold-water injections, which by their presence seem to excite the latent functional power of the organ, and thus stimulates to its contraction.

Respectfully,
C. H. VON TAGEN, M.D.,
Chicago, Ill.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 29, 1878, *to January* 4, 1879.

BARTHOLF, J. H., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Alcatraz Island, Cal., and to report for duty on January 2, 1879. S. O. 187, Div. of the Pacific and Dept. of California, December 19, 1878.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 4, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Dec. 28, 1878.	0	20	181	0	3	61	0	0
Jan. 4, 1879..	0	11	224	2	2	73	0	0

GEO. W. CALLENDER, F.R.S., OF LONDON.—Prof. H. B. Sands gave a reception at his residence to Mr. Geo. W. Callender, of London, on the evening of Jan. 5, 1879. A large number of distinguished members of the profession were present, representing all the medical colleges, hospitals, dispensaries, as well as a number of leading private practitioners. On Saturday Mr. Callender visited Bellevue Hospital Medical College, and was persuaded by Prof. Sayre to make a few impromptu remarks. These have been presented in lecture form to our readers, in another place, page 25.

A NEW COURSE ON DIDACTIC DERMATOLOGY AT THE UNIVERSITY OF PENNSYLVANIA.—Dr. Louis A. Duhring is at present engaged in delivering a course of didactic lectures on dermatology at the hospital of the University of Pennsylvania. The lecture hour is

between 4 and 5 on successive Saturday afternoons. The Dr. illustrates his lectures with rich specimens from his own private collections and from the George B. Wood collection in the Museum of the Medical School.

Medical Society of State of New York.—Delegates to and members of the Medical Society of the State of New York, who propose to present papers at the next annual meeting, will confer a great favor on the president and secretary, by sending, before January 15th, the title of their proposed papers, with the time they will occupy in reading them, to Dr. D. B. St. John Roosa, 20 East Thirtieth Street, New York.

New York Academy of Medicine.—At a stated meeting, held January 2, 1879, Dr. Fordyce Barker was elected President; Dr. James R. Leaming, Vice-President; Dr. S. S. Purple, Trustee; Dr. Charles Wright, Treasurer of the Board of Trustees; Dr. F. V. White, to serve in the Committee on Ethics; Dr. E. H. Janes, Committee on Admission; Dr. J. H. Hinton, Committee on the Library; and Drs. F. H. Hamilton and C. W. Packard, Committee on Education.

A memoir of the late George Wilkes, M.D., was read by Dr. Charles Wright. In the course of the memoir reference was made to the fact that Dr. Wilkes assisted Dr. Valentine Mott, who first successfully amputated at the hip-joint, and that the head of the femur was not disarticulated until the first dressing of the stump was made.

At the next meeting of the Academy, Jan. 16th, Dr. S. S. Purple, the retiring President, will deliver his valedictory, and Dr. Fordyce Barker, the President-elect, will give his inaugural address. It is requested that there be a full attendance, as some interesting and practical suggestions are to be offered, bearing upon the continued usefulness and future prosperity of the organization.

Charity Hospital.—The Medical Board of Charity Hospital held their annual meeting for the election of officers at the New York Academy of Medicine, January 2d. The following officers were elected for the current year: President, Dr. Joseph W. Howe; Vice-President, Dr. Elsberg; Secretary, Dr. Robinson. Committee of Inspection: Drs. Frankel, Goldthwaite, Ely. Committee on Examination: Drs. Gillette, Howe, Otis, Ripley Robinson.

Quinine and Urticaria.—John Hunter, M.B., Millbrook, Ontario, writes: "Dr. Lente's article, in a recent number of The Medical Record, reminds me of two of my patients who were unusually affected by quinine in single doses of ten grains each. Both were females. The first was suffering from a severe attack of urticaria. She had taken other treatment for it. Quinine in above dose gave prompt relief, which lasted for some months. The second had symptoms of malarial fever. Gave her ten grains. She suffered the most intense pain in the head and in different parts of the body, with great prostration. She said it affected her in the same way some years before. These cases happened in my first year in practice. I was not aware then of the effects being of any special interest, otherwise I would have taken much fuller notes."

Deviation in the Development of the Vocal Cords.—Dr. J. P. Creveling, of Auburn, N. Y., writes: "I trust the following description of a deviation in the development of the vocal cords will be of sufficient interest to merit insertion in your journal. The subject was a male Indian, about thirty years of age, who died of tubercular deposit in lungs, with pneumonia. The larynx was removed entire, and divided posteriorly from above downward, between the arytenoid and through the cricoid cartilage. Folding the sides of the organ outward, a limited deposit of tubercular material was observed in the lower portion, mostly confined to the right side. The right vocal cord presented nothing unusual; the left was divided at its posterior third into a superior and an inferior fasciculus, the former passing upward and backward to the false cord, its fibres running parallel with and being inserted in common with that ligament at the anterior surface of the arytenoid cartilage. The inferior extended backward, and was inserted into the anterior angle of the same cartilage as usual.

The mucous membrane being carried upward along with the superior fragment, a third ventricle was formed, which was about one-third the normal size, covered with mucous membrane, and rather oval in shape. The free margin of the right vocal cord measured seven-eighths of an inch in length; the left, as far back as the division, nearly five-eighths; and each fasciculus a fraction more than two-eighths. The motion of the left cord was limited, and its free margin turned upward and somewhat outward, or into the ventricle proper. The case came under my observation a few days before death, but was so extremely feeble that an examination with the laryngoscope was not attempted, and although at that time unable to utter any audible sounds whatever, I am informed that previous to his illness his voice was good."

Antidote for Arsenite of Soda. The ordinary antidote to asenious acid (hydrated sesquioxide of iron) is wholly inefficacious in poisoning by arsenite of soda or potassa. The antidote to the latter is formed by the mixture of a solution of sesquichloride of iron and the oxide of magnesium. This mixture also answers for acid arsenious, consequently should always be preferred in arsenic-poisoning. Give the officinal sol. ferri sesquichlor., and afterward the magnesia. Give a cathartic an hour after the antidote. Avoid all acid drinks.

The Mütter Foundation Lectures in Philadelphia on Surgical Pathology. Old Dr. Mütter, of Philadelphia, at his death, which occurred some fifteen or twenty years ago, made over to the Philadelphia College of Physicians and Surgeons, the sum of $30,000 and his valuable collection of anatomical and pathological specimens, on condition that the college should erect a fire-proof building containing library accommodations, meeting and lecture rooms, and a museum. This was done in the year 1864, and since then the college has been enjoying the benefits of the endowment. The Doctor had provided in his will that $600 out of the yearly accruing interest on the bequest should be set aside every third year as payment for a series of not less than ten lectures on some subject in surgical pathology, to be delivered by a member of the profession chosen by the college. The choice this year fell upon Samuel W. Gross, M.D., who divided his lectures into two series. The first series, consisting of six lectures, was begun on December 3d, and finished on December 17th. The first two lectures of the series were upon the "Development, Etiology, and Classification of Tumors," and the remaining four on "Sarcomas of the Bones." The second series, of four lectures, will probably have for

its subject "Tumors of the Breast," and be ready for delivery towards the end of the coming May. The third and fourth lecture of the first course are to be published in *The American Journal of the Medical Sciences* for April, 1879, and the fifth and sixth in the same journal for July, 1879. Dr. Gross purposes to publish a treatise on tumors at an early date. The Mütter lecturer for 1881 is Dr. Edward O. Shakespeare, the well-known Philadelphia microscopist and pathologist.

It may interest the profession to know that the famous dissection of the Siamese Twins, which was performed several years since by Drs. William H. Pancoast and Harrison Allen, of Philadelphia, at the request of the College of Physicians and Surgeons, and which cost altogether some $1,100, including the expense of transporting the bodies of the twins to Philadelphia from their homes in the South, etc., etc., was entirely provided for out of the Mütter foundation.

A New and Successful Treatment of Shock.—Dr. Charles T. Hunter, Demonstrator of Surgery in the Medical School of the University of Pennsylvania, has lately introduced a new and successful treatment for the general shock following railroad injuries, etc. The patient is at once placed in a bath of 98° F.; the temperature of the bath is then rapidly raised to 110° F. As is well known the temperature of patients suffering from shock is as low as 96° in the armpit. By this method of treatment, Dr. Hunter has been able to raise the patient's temperature from 96° to 98½°, and to reduce his respirations in number from 36 to 20 in the minute. Before the bath, the skin is cold and clammy; on taking the patient out, it is warm and dry. The patient is kept in the bath from ten to fifteen minutes. This treatment has been followed in a number of recent cases in the surgical wards of the University Hospital.

Free Chlorine in Diphtheria.—Dr. B. L. Hartman, of Independence, Washington Co., Pa., after a rather extensive experience with diphtheria, and after finding that the usual remedies were powerless, says: "I concluded to try the chlorine in its pure state absorbed in a vegetable gum-water solution, as slippery elm or althea-root water. It is easily swallowed in this state, it is almost immediately absorbed, and its antiseptic and alterative action is at once perceivable. The effect was astonishing—the patient, a few hours before, rapidly sinking, revived in a short time. The fever and inflammation rapidly decreased. The specific discharge diminished, sinous gangrenous ulcerations took a more healthy appearance. The foul, stinking breath disappeared. The affected mucous membrane threw off its coating and discharged a more normal saliva, and in three to four days the most hopeless cases were out of danger.

This encouraged me to use it in all cases of diphtheria, and with proper sustaining diet and preparations of cinchona decoction, stimulants, etc., gargles of chlorate of potassa, alums, chlorate soda solution, salicylic acid solution, iodide of iron solution. After having pursued this treatment I lost but one patient, and he died of paralysis of the heart, two weeks after convalescence.

Formula: Aqua chlorate (Pharmacopœia Prussia), one oz.; Slippery elm water, or gum solution, 8 oz.

For a child from two to six years old, one dessertspoonful every hour. For adults: Aqua chlorata, one oz.; Slippery-elm water, 6 oz. A tablespoonful every hour. Sustaining diet in small quantities every two to three hours, especially *milk*, and as soon as the mucous membrane is normal give stimulants in small quantities, with iron and cinchona preparations. In paralytic affections *nux vomica* or its preparations, as the case may require. I will remark before closing, that in nearly all cases I have noticed a peculiar tenderness of eyesight; and, in some acute cases, even total blindness for from a few hours to a few days, but disappearing always with a return to health."

Chapped Hands.—Dr. M. A. Wilson of this city gives the following prescription for chapped hands:

℞ Acid carbol.....gr. xv.
Yolk of egg.....one.
Glycerinæ.....℥ iij.

M. A small portion to be gently smeared over the affected surface several times daily.

The wearing of a pair of cotton or old kid gloves will much assist the recovery. The hands to be kept much as possible out of water. This mixture does not "spoil" by keeping.

Dr. George A. Riecker, a graduate of Jefferson College, Philadelphia, and for some time surgeon to the Panama Railroad Company, died in Panama on the 4th instant of congestion of the liver. He was a surgeon in the Northern Army during the Rebellion. The funeral services were under the charge of the Masonic body.

Air of House of Representatives.—The physicians who attended the late Congressman Williams state that his illness "was entirely owing to the poisoned condition of the atmosphere of the House of Representatives, which he breathed constantly during the day, and to the malaria to which he was exposed at night, his private room being upon the south side of the avenue, directly over the water-sewers of the city." The public have suspected for many years that there was something wrong in the atmosphere of the House of Representatives.

Injection for Gonorrhœa.—Dr. M. A. Wilson, of this city, gives the following as his favorite prescription for gonorrhœa. He says it is most beneficial in the subacute stages, either recent or of long standing, but not of much service in *gleet*. All directions in regard to urethral hygiene, usually ordered in the treatment of this obstinate affection, are of course to be insisted upon:

℞. Zinci iodid..... grs. v.
Bismuthi subnit.....℈ ij.
Mucil. gum acac.....℥ iss.
Aquæ dest..... q. s. ad ℥ iii.

To be well shaken.

M. S.—To be injected after each urination.

This is the strength most generally serviceable, but may be varied according to the judgment of the prescriber.

Hypodermic Injections of Tincture of Ergot for Retention of Urine.—M. Luton, of Rheims, employs a mixture of one part of tincture of ergot in five parts of alcohol at 90°, by hypodermic injection, in the treatment of inorganic retention of urine. The dose he employs is from seven and a half to thirty drops, fifteen drops of the solution being equal to three grains of powdered ergot. He has used it in the paralysis of the bladder accompanying typhus, confluent variola, and acute hydrocephalus. He makes the injection in the fossa behind the great trochanter. Within half an hour, and sometimes within a few minutes, a complete and forcible evacuation of the bladder takes place. He has never observed an eschar of the skin or a gangrenous abscess after the injection.—*Le Lyon Médical.*

Original Lectures.

ACUTE ARTICULAR RHEUMATISM.

TWO LECTURES DELIVERED BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA,

By ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

(Reported for THE MEDICAL RECORD.)

LECTURE II.

THE CONSTITUTIONAL SYMPTOMS OF ACUTE ARTICULAR RHEUMATISM—THE DIAGNOSIS BETWEEN THIS DISEASE, GOUT, DENGUE, AND ARTHRITIS—THE PROGNOSIS OF ACUTE ARTICULAR RHEUMATISM—THE COMPLICATIONS OF ACUTE ARTICULAR RHEUMATISM—THE LITERATURE OF THE TREATMENT OF THE DISEASE; PURGATIVES, OPIUM, QUINIA, BLISTERS, SALICYLIC ACID, AND ALKALIES—THE MOST RATIONAL TREATMENT THAT BY ALKALIES.

I CONCLUDED my last lecture with a consideration of the local symptoms of acute articular rheumatism. The general symptoms are in proportion to the local symptoms, and in no other disease are they more marked. The pulse is from ninety to one hundred in cases of average severity, and is not very tense. In the usual run of cases the temperature varies from 101 to 104 F.

It is a very curious fact that with this high temperature the skin is bathed in a profuse sweat. This, of course, is entirely different from what occurs in other diseases. The perspiration is sour in smell, acid in reaction, may be either cold or clammy, and gives to the hand a marked sensation of pungency. The amount of sweat is generally in proportion to the height of the fever, but it cannot be considered as any criterion of the severity of the attack. The sweat of acute articular rheumatism is more profuse than that occurring in any other febrile disease which lasts for the same length of time.

To the sweating is partly due the increasing anæmia of the patient. This condition of anæmia gives rise to a murmur, which is not heard over the mitral valve, but at the base of the heart and over the aortic valve, and differs from the murmur heard in lesions of that valve. It is essentially a blood murmur, and is to be carefully distinguished from a mitral obstructive murmur.

The urine is usually scanty and high-colored, and laden with solids—urates and uric acid. There is commonly complete abhorrence of food, and great thirst. The bowels are generally much constipated. The constipation and thirst are both due to the excessive sweat.

There is very frequently some kind of an eruption accompanying attacks of acute articular rheumatism. Sudamina are very common. Erythema, both simple and nodose, occasionally appear; while upon still rarer occasions urticaria is found breaking out. This eruption has no special value as a prognostic symptom, or otherwise.

The face is flushed, and the eyes are bright, while the expression is one of acute pain. In the active stages of the disease the pain may bring on delirium by reason of its agonizing character.

When the disease was treated by venesection, as was formerly the case, the blood so drawn was found to be very florid in appearance, and threw up, upon allowing it to stand, a thick and strong buffy coat. In some instances the proportion of fibrin in the blood was found to have risen from two and a half parts in one thousand parts of blood to five and even eight parts in the same amount. This great excess of fibrin in the blood is a very interesting pathological fact. In no other disease is the fibrin so greatly in excess.

There is but one plausible explanation of this phenomenon. It may be due to an arrested development of the white corpuscles, whose destruction would render intelligible the extreme pallor and debility of patients suffering from this disease; it being at present a seemingly well-established fact that the red corpuscles are formed directly from the white corpuscles. The loss of strength is due to the enormous waste of tissue brought about by the excessive discharge of solids in the urine.

After a variable period the pain and fever subside, the sweat moderates more and more, the thirst becomes less marked, the urine grows lighter in color, the effusion about the joints is absorbed, and the swelling subsides. Acute articular rheumatism is a disease which is not limited by days or weeks in its course. Be very careful, therefore, that you do not predict when your patient will get well.

If there is no relapse, the appetite will speedily return. If the recovery, however, is not so favorable, the effusion about the joints will remain; their fibrous tissue will become thickened, false anchyloses supervening, and movement of the affected parts becoming impossible. Particularly is this the case when the disease has been confined to a single joint, or when the same joint has been attacked several times by the disease.

The duration of acute articular rheumatism has been placed by some authorities at three months. The disease, as a general rule, will be found to be obstinate in proportion to the number of joints involved and to the frequency of the occurrence of attacks in the same joints.

THE DIAGNOSIS OF ACUTE ARTICULAR RHEUMATISM.

Acute articular rheumatism may be mistaken for the *arthritis*, produced by violence, or pyæmia. In both of these diseases the history of the causes and nature of the first attack ought to clear up all confusion with regard to the true nature of the malady. In arthritis there will almost always be found a history of some violence, or traumatic cause, or wound, or previous disease.

The fever and pain in the limbs render acute articular rheumatism something like *dengue*, or break-bone fever; but in this latter disease there is no swelling of the joints. In break-bone fever, too, there is always a papular eruption of the skin, which recalls measles, scarlatina, typhoid, and other fevers.

The disease from which it is most difficult to distinguish acute articular rheumatism is gout, though even here no one in the least familiar with the characteristic symptoms of the two diseases would be at all likely to confound them. Certainly not in acute gout, though possibly in an old, chronic case.

Rheumatism is chiefly produced by cold and wet; gout is never so produced. Rheumatism occurs among the poor and laboring classes; gout among the luxurious and indolent. Rheumatism attacks the larger joints, especially in its primary form, or else the small joints of the hand. Gout in its primary form invariably attacks the smaller joints, especially that of the great toe. In rheumatism there is no gastric disorder; in gout gastric symptoms are common. In rheumatism there is profuse acid perspira-

tion; in gout there is no perspiration at all, and the skin is hot and harsh. In rheumatism there is a secretion by the skin and elsewhere of *lactic* and *uric* acids; in gout there is only a secretion of *uric* acid by the kidneys, though I will not say that this uric acid is not also secreted by the skin, for it circulates freely in the blood. There is no tendency to saline and chalky deposits in the joints in rheumatism; in chronic gout there is such a tendency. In rheumatism the bursæ and joints are swollen; in gout the swelling is confined to œdema of the skin. In rheumatism the color of the affected joints is light red; in gout the redness is intense and dark. In rheumatism there is no permanent enlargement of the parts; in gout this is always so. In rheumatism the remissions are of very slight duration; in gout they are very marked, the patient imagining himself quite well in the intervals.

THE PROGNOSIS OF ACUTE ARTICULAR RHEUMATISM.

Acute articular rheumatism is not a dangerous disease in itself, though one attack increases the liability to the disease. The mortality in uncomplicated cases of acute articular rheumatism is only about four per cent. Where the disease is fatal in itself, it is generally due either to the excessive pain acting on a weak constitution, or to the so-called *hyperpyrexia*, the cases in which the temperature mounts up rapidly to 108° or 110° F., or to the exhaustion of the brain and the heart. The danger of cardiac inflammation is greater in the young than in the old. Repeated attacks produce a permanent rigidity of the joints, and render the valvular lesion worse each time. There are very few second attacks which do not settle upon the same joints which were affected in the first attack, and make an additional deposit upon them.

THE COMPLICATIONS OF ACUTE ARTICULAR RHEUMATISM.

The complications of the disease would form a very interesting study, but I have not time to enter upon a full consideration of them.

Among them may be mentioned chorea, or St. Vitus's dance, which is more or less marked in severity and an especially common complication in children. This disease, as an accompaniment of rheumatic affections, is more common where the heart is affected than where it is not.

Acute articular rheumatism is a peculiar inflammation of the capsules and ligaments investing the joints. This inflammation may be transferred to any similar tissue elsewhere. All the serous and fibrous membranes of the body are exceedingly liable to be inflamed, hence the frequency of peritonitis, pericarditis, endocarditis, pleurisy, meningitis, or bronchitis, as complications of rheumatism. In these cases, where internal organs are attacked, the local rheumatic symptoms are not in the least diminished—the patient has two diseases to suffer instead of one. Of all the complications meningitis is the least frequent, while pleurisy and bronchitis are the most common. Rheumatic pleurisy with bronchitis is very intractable. Such a pleurisy is more likely to be double than any other form of pleurisy. Rheumatic bronchitis also is apt to be very severe, for, unlike common bronchitis, the whole extent of the bronchial mucous membrane is affected, and the oppression is greater than in any other form except plastic bronchitis. The cough, too, is racking and unproductive.

Attention was first called to rheumatic heart-affections by Pitcairn, of London, and the close connection between the two diseases demonstrated. Again, in 1820, Dr. James Johnson insisted upon the same thing. The celebrated Bouillaud, of Paris, was the first, however, to prove beyond a doubt the nature and reality of the inflammation, although he exaggerated the frequency of the occurrence of endocarditis. The explanation of this exaggeration lies in the fact that at that day all murmurs heard within the heart were supposed to be produced by inflammation of the organ, whereas they often depend upon changes in the blood. Bouillaud called attention to the deposits made in the heart in the *post-mortem* inspection of persons dying of the disease, especially upon the leaflets of the mitral valve. Pericarditis or endocarditis he supposed to occur about once in every five cases of acute articular rheumatism. The signs of endocarditis are sometimes obscure and doubtful; it cannot be proven to exist on the strength of an endocardial murmur, which may be either functional or organic; or, again, the murmur may be caused by the attachment to one or more of the valves of more or less of the fibrin which is circulating in the blood. It is now settled that if there is no increase of the general symptoms at the time there is no proof of the existence of endocarditis.

The cerebral complications of acute articular rheumatism are thus described by Fuller: A patient with acute articular rheumatism passes a week or two with no untoward symptoms, until, after several nights of flightiness, maniacal delirium occurs, in the course of which he throws his limbs about as if they were insensible to pain. If the patient does not improve, he falls into a state of coma, and dies from exhaustion. In such cases no evidence of inflammation in the brain is found after death.

Sometimes, owing to the excess of fibrin, coagula form in the heart, and become the cause of alarming and distressing symptoms. Emboli being so formed, may be carried perhaps into the brain and other organs.

THE TREATMENT OF THIS AFFECTION.

At the outset of this part of my discourse, I desire to lay great stress upon the statement that *the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature.* Apart from complications, such cases nearly always get well under rest and good nursing. Try and disabuse yourselves of the idea that their cure is dependent upon medicines alone; to help nature is often the best we can do. No treatment was ever invented which stopped a case of acute articular rheumatism. It cannot be accomplished by bleeding, or sweating, or purging, by nitre, by tartar emetic, by guaiacum, by alkalies, by salines, by salicylic acid, or by anything else. The physician can palliate pain and perhaps shorten the attack; can perhaps prevent or control complications, and stiffness in the joints, but he cannot arrest the disease. Where rest, proper diet, and warmth are enjoyed, most cases will get well just as soon without as with the use of other remedies. Dr. Austin Flint, of New York, in support of this statement, subjected some patients, a number of years ago, to the expectant treatment, and found that they made just as rapid and just as complete recoveries as those cases under active medication.

Purgatives have been used in all ages in the treatment of this disease, because it was considered to be a fever. We are all too apt to put our necks into the yoke of a theory. In old times they thought that the system ought to be reduced. Before the time of purgatives depletion was employed. This mode of treatment I will not even discuss. There is no evidence that I know of in favor of purgatives. There are

very good reasons, indeed, why they should not be used: (1) because they cannot possibly cure; (2) because they oblige the patient to make painful movements; and (3) because they expose him to the danger of cold.

A celebrated London physician had all his patients packed in blankets, and did not allow them to move a finger. This was going to the other extreme.

There are certain cases in which purgatives are alleged to be of use, viz., those in which the bowels are constipated, and there is a bitter taste in the mouth. I have never seen such cases except in habitual drunkards, and in their case a purgative does more harm than allowing the effete matter to remain in the system.

Opium was once vaunted as a specific, and it was claimed that it diminished the complications of the disease. Dr. Corrigan, of Dublin, said that large doses of opium were well borne—say from four to twelve grains in the course of the twenty-four hours, or sometimes he advised giving as much as one grain every hour. Opium so employed does not produce narcotism, and does not constipate the bowels. More recent experience has shown that opium, of all remedies, is the most likely to cause complications in the heart.

Some have recommended colchicum, arguing that because it does good in gout, it must therefore do good in rheumatism. But colchicum is not a remedy for rheumatism.

Many years ago it was very much the custom to administer large doses of powdered Peruvian bark. The rationale of these large doses was founded upon their sedative effect. Haygarth, Morton, Heberden, and Fothergill were the first to employ this method. Later still, a number of noted French physicians, among them Briquet, Andral, Monneret, and Legroux, renewed the use of this medicine in the form of quinia, but gave it in smaller doses, seeking only its tonic effect, from five to fifteen grains being administered in the course of twenty-four hours, and then it was continued in smaller doses.

Still more recently, quinia taking the place of Peruvian bark, the old plan of administering large doses has been resumed. From thirty to one hundred grains have been administered in the course of twenty-four hours. Never was there a more profligate waste of a precious medicine. Even the physicians who so used it were obliged to acknowledge that it only did good in subacute and mild cases.

I believe that it has also been fashionable in the so-called cases of *hyperpyrexia* to immerse the patient in a bath varying in temperature from sixty to ninety-eight degrees Fahr. Although patients thus treated sometimes recovered, they also sometimes perished from congestion of the lungs and brain.

Among cardiac and nervous sedatives, digitalis, veratrum album and viride, veratria and aconite, have at one time or another been employed indiscriminately. Such treatment, of course, has only proven itself to be a monument of rashness to those who employed it. Such sedatives may reduce the pulse, but do not shorten the disease. Indeed, if it is possible to prove the absurdity of anything more clearly by mere enumeration of these medicines as cures for rheumatism, I do not know of it. Do digitalis and aconite act in the same manner? This is just one expression of the folly which has surrounded the use of digitalis at its first discovery. Every affection of the heart was treated by digitalis.

Within the last few years new remedies have been proclaimed in salicylic acid and its sodium salt. I confess that I possess no personal knowledge of their use in this disease, for I was at first dissuaded from employing them by a prejudice against the grounds on which they were recommended, and more recently by the contradictory judgments respecting them, and the unquestionable mischief they have sometimes caused. According to their eulogists, the arrest of the disease is secured by them within four or five days, whether the attack be febrile or not; its mortality is diminished; relapses do not occur if the medicine is used until full convalescence; it is without influence on heart complications already existing, but it tends to prevent them as well as other serious inflammations. One of these gentlemen assures us that to say it far excels any other method of treatment would be to give it but scanty praise. But, upon the other hand, it is accused of producing disorders, and even grave accidents, in almost all the functions of the economy. In some cases it has caused ringing in the ears, or deafness, or a rapid pulse, or an excessively high temperature, panting respiration, profuse perspiration, albuminuria, delirium, and imminent collapse. In one published case, this antipyretic did not lower, but, on the contrary, seemed actually to raise the temperature so high that immediately after death it stood at 111° F. Many, very many, analogous cases have been published. I repeat, therefore, that I am personally unacquainted with the effects of this medicine in acute articular rheumatism, and that I have not, thus far, been tempted to employ it.

BLISTERS AND ALKALIES THE MOST RELIABLE REMEDIES.

It may be difficult to see the connection between these two classes of remedies in their power to influence the course of acute articular rheumatism, and yet it is certain that they do so influence it, and in the same way, *i. e.*, by altering the condition of the blood from acid to alkaline. If you ask me to explain to you how blisters act in this way, I am obliged to confess my ignorance. To produce this effect, they must be applied over all the affected joints. Experience, if not science, has decided conclusively in their favor. They do produce a cessation of the local symptoms, render the urine alkaline, and diminish the fibrin in the blood.

This brings us to a consideration of the use of alkalies. Alkalies neutralize the acids, act as diuretics, and eliminate the *materies morbi*. Alone, and in small doses, they are unable to cure; but, when given in very large doses, their effects are marvellous; the pulse falls, the urine is increased in quantity and becomes alkaline, and the inflammation subsides. The symptoms of the disease are moderated, the duration of the attack is shortened, and the cardiac complications are prevented.

The dose of the alkalies must be increased until the acid secretions are neutralized. A very good combination of these remedies is the following.

R. Sodæ bicarb. . . . . ʒss.
Potas. acetatis, ... ʒss.
Acid. cit. . . . . ℥ss
Aquæ. . . . . ℥ij.

S.—This dose should be repeated every three or four hours until the urine becomes alkaline. On the subsidence of the active symptoms, two grains of quinia may be added, with advantage to each dose. The alkalies must be gradually discontinued, but the quinia continued.

The diet should consist of beef-tea or broth, with bread and milk; no solid food should be allowed.

Woollen cloths moistened with alkaline solutions may with advantage be applied to the affected joints. To these laudanum may be added for its anodyne effect.

The patient must be sedulously protected from vicissitudes of temperature, and lie in bed between blankets.

The alkaline treatment relieves the pain, abates the fever, and saves the heart by lessening the amount of fibrin in the blood.

A long time ago Dr. Owen Rees, of London, introduced the use of lemon-juice. This remedy was thought to convert uric acid into urea, and so to help elimination. Though the treatment is practically right, the theory of it is wrong. Lemon-juice does good in mild cases, but cannot be relied upon in severe attacks.

During the febrile stage of acute articular rheumatism the diet should consist mainly of farinaceous and mucilaginous preparations, with lemonade and carbonic acid water as a drink. The cloths applied to the joints should be changed when they become saturated with sweat, and in changing them the patient should be protected from the air.

The sweating may be controlled by small doses of atropia, from one-sixtieth to one-thirtieth of a grain. To prevent subsequent stiffness, the joints should be bathed with warm oil and chloroform, and wrapped in flannel cloths. In the proper season this condition is very well treated by sea-bathing. There is no specific plan of treatment in acute articular rheumatism. The treatment must vary according to the intensity of the inflammation and the peculiarities of the patient.

Original Communications.

THE PROPHYLACTIC TREATMENT OF INDIVIDUALS AS A MEANS OF PREVENTING EPIDEMICS OF YELLOW FEVER OR OTHER INFECTIVE DISEASES.

PAPER PRESENTED TO THE PUBLIC HEALTH ASSOCIATION, RICHMOND, NOV., 1878.

By EZRA M. HUNT, M.D.

As to all infective diseases, four questions are prominent: I. Origin; II. Modes of propagation; III. Methods of prevention; IV. Treatment.

In this paper we shall not discuss the origin (I.). We shall take it for granted that the *mode of propagation* (II.) is by infective particles, mostly received through the air-passages, which, passing into the human system, produce that toxic and abnormal condition which constitutes the disease.

The treatment (IV.) we leave to be discussed by those who, after heroic contention with the recent epidemic, still live to contribute their experience.

Our present intent is only to inquire as to methods of prevention. To this inquiry there are many prompt replies.

Those, for instance, who regard yellow fever as an infection, imported every time it first appears, fasten attention on the marine. To such—so far as the United States is practically concerned—that is the origin, and such propose its abolition coastwise. That may be so; and all along the line we would put the forces of sanitary art on duty, as if that were *the direction* of danger.

But so often has the enemy entered while watched, so hard is it to watch so as to prevent landing atoms or molecules so small that the microscope and the Tyndall light reflectors have not revealed them, and so variable are the convictions of skilled students of epidemiology, that by common consent other methods of prevention are not to be dispensed with.

The second answer is: prevent by cleanliness of surroundings—purity everywhere. Not one whit would we demur from that enforcement. But we are to remember that massed population, without *any* animal organic matter around, and vast areas of territory without *any* accumulated vegetable decay, are difficult of realization. To remove or disinfect all such decay is a herculean task. If infective particles only await the coincidence of heat, moisture and accumulated decompositions, they stand large chances of finding these somewhere. The effort is to be made, because partial success means limitation; but we may not entirely trust to this for the abolition of infective diseases.

Is it not also well, just here, to note that with all that is said about FILTH, yet the infective particles, having been originated elsewhere and arrived in cargo, it is yet to be proven that outside filth is the soil for such particles. Is not the soil in the individual? Does not the infection go straight for the human being as its place to feed, and grow, and display its sad vigor of force? It is not *dependent* upon collateral outside aid now. The vicious entity has arrived as a plenipotentiary. For display of power it only needs a man, a woman, or a child, even if occasionally accepting the aid and abettal of outside servants. We believe that filth is evil, and only evil, and that continually, and that it often assists to intensify infective diseases, but more because it embarrasses individuals in their resistance than that it invigorates infective particles for the higher organism on which they feed, and to which they, by their own ill instinct, resort.

Sir Thomas Watson, Bart., M.D. (1877), goes so far as not only to call the *body* the soil in which the infection finds its sought-for nidus and food for growth, but accounts for the *single* attack of many infective diseases, on the view that the first seizure exhausts some one or more of the indispensable ingredients only to be found in the man.

The next reply, and the most usual resort, is *treatment*. It hopes to limit by staying the progress and abating the severity. This, though not preventive to the individual concerned, does probably limit the production of infective particles, and result in fewer seizures. But new discouragements await us. Some of these infections, like plague and yellow fever, so rapidly change vital fluids, or congest or disorganize, that the system is incapacitated for the appropriation of remedies so as to obtain their physiological and medicinal effects. In yellow fever, for instance, the earliest and radical changes are in our great dependency, the blood. It is a blood-poison (Schmidt). With the introduction of a foreign irritative there is rapid decomposition, *i. e.*, separation of its constituent parts, impairment of the blood-paths to the remotest arterioles, and paralyzation of the vaso-motor nerves (Huxley, p. 62) which control them. The blood is very early acid, the red corpuscles are diminished in size, shrunken and crenated, and their coloring matter becomes free in the blood, thus changing from hemoglobin to hematin. The fibrin is diminished so as not to coagulate; the walls of the vessels lose tone, and show germination of the nuclei of the muscular coat of the arterioles, and early fatty degeneration (compare Klein, p. 47). Organs are

affected not so much specially (idiopathically or primarily) as by virtue of a tendency to congestion consequent upon the primary toxic shock on the blood and its ducts.

I happened to be reading side by side the report on the minute anatomy of twenty-three cases of malignant scarlatina by Klein, and similar examinations of yellow fever by Schmidt, etc. (Privy Council, New Series, No. 8, 1876, p. 24; *N. C. Journal*, Sept., 1872 and 1873), and could not but be impressed with points of comparison.

Here is one: It would seem as if, "under the influence of some stimulus (perhaps some blood-irritant) which the disease supplies, the arterial muscular tissue has been exceptionally exercised. Query, whether this exceptional exercise of contractility affecting the calibre of the arterioles may, during life, shut the glomeruli out of the circulation, and may thus, so far as it operates, suppress the secretion of urine." See Klein, p. 58.

Prof. Joseph Jones, *N. C. Med. and Surg. Journal*, Sept., 1874, notices "the rapid putrefaction of the blood of yellow fever after its abstraction from the living body, as also the rapid dissolution of the colored blood-corpuscles."

The hopelessness of treatment in severe cases is inseparable from the involved lesions of the disease. It is much the same as with the concealed imbibition of an acid poison, for it thus impairs structure as much as does a fretful corrosive in contact with living parts. If we had antidotes we would be too late.

In view of all these facts, as to the incompleteness of our prevention, by coast guard, by cleanliness and disinfection, and by after-medication, we are almost driven to ask whether we may not turn from surroundings (circumstances) and come to deal with individuals before the manifestation of disease.

Is it not worth yearning inquiry if we cannot put individuals in such a condition of unreceptivity as to exempt them from seizure, and so not only save them, but thus limit the disease below epidemic proportions, and in the end, by all the methods combined, accomplish well nigh its subjugation?

Such limitations do take place in nature. Unsusceptibility to attack under actual exposure is not a mere fortuitous circumstance; we recognize it as acquired by the individual when we call him acclimated.

That protection must be of an internal character. Such limitations are often established when a disease once had secures immunity from any subsequent attack.

It is not unthinkable that somehow we too may put the individual in at least such temporary condition as that the infective particle will not alight upon him, will find a surface on which it cannot or will not operate. That we do not do this after a disease has made alteration of structure and accomplished suspension of function, is not surprising. Nor is it at all strange if the same remedies, which are useless or feebly operative or positively injurious in the disease, might yet avail before its outbreak.

What then can we do to the individual so that when the particulate or molecular infection comes along it shall find a surface unfriendly to its lodgment, or the blood and secretions or the membranes so preoccupied, prepossessed, pre-empted, that the disease cannot take hold? There is an answer which has to do with mechanical prevention. If cotton-wool will detain saprophytes, we can conceive how, were it practicable, the air-passages might have infective particles strained out and left without.

But more practically we may look to the entrance-chamber for all air and food. The mouth, the glands, the lymphoid follicles, the character of the membrane, its whole series of absorptive apparatus, as revealed by histology, and the manifestations which in some infective diseases do take place just there, and the evidences in others of absorption from thence, cannot but excite watchful inquiry. That is a suggestive remark of Dr. Wm. Farr, in the Thirty-eighth Annual Report of the Registrar-General of England, when referring, as he calls them, to "the seeds of zymotic disease," he says: "Inspiration bringing them into contact with the mucous membrane of the nose, throat, and air-tubes, easily infects the moist surfaces with their venom" (p. 232). There are some infective particles which are local in effect, as well as conveyed by absorption, before they are wholly constitutional. With infectives which enter from without, it applies to the individual as well as to the State to guard the port of entry.

Since it is possible that infective particles might be detained mechanically or affected chemically, or if living matter, like other animals or vegetables, might have their instincts or choices of locality, or that corrugated surfaces, or certain odors or presences, might prevent activity or absorption, the question is not irrelevant; whether we may not, by dealing with the most accessible mucous surfaces, which all these particles have to pass over or lodge upon, somehow embarrass entrance or suspend their proclivities. But in a disease like yellow fever more important is the question whether the setting up of those absorptive, proliferative changes which the poison would initiate, cannot be prevented by introducing beforehand and securing the sustained presence in the blood and system of substances inimical to the infective particles in their attempted occupancy and disorganization. Now note a few facts from competent observers, not offered by them in support of a hypothesis, but occurring in the course of other investigations.

Prof. Polli, of Milan, in his paper before the British Medical Association, 1877, entitled "Observations on the Treatment of Zymotic Diseases by the Administration of the Sulphites," showed by his experiments that the bodies of animals that had been fed on the sulphites resisted putrefaction longer than similar animals not so fed, and so rendered it probable that certain resistive conditions can be maintained in the living body for a time (although he did not hint at the application of the principle to the prevention of disease). Still more suggestive is the fact that urine passed by the animals while living "did not undergo ammoniacal fermentation for eight days during the hot Italian summer."

Is it not tenable to ask whether we may not, by infusion of the blood, interfere with septic infections before they have crippled our power, and thus prevent their recognizance or make the malign benign?

In a recent discussion which took place at the Paris International Congress of Hygiene (1878), M. Bugy alluded to his own careful watching through several cholera epidemics as to the singular exemption of workers in copper. He had himself satisfactorily experimented with it. "The point was to become impregnated with the copper—to have a certain quantity in the system—so as to obtain immunity." He explained the escape of Aubagne, between Toulon and Marseilles, from three cholera epidemics in this way. M. Mormisse declared his confidence in this prophylaxis. (See *London San. Record*, Aug. 16, 1878, p. 106.)

The influence of continuous doses of arsenic in suspending the effects of vaccination, and its value as a prophylactic in an epidemic of rinderpest, is claimed

as a result of experiments and observations by E. J. Syson, English Medical Officer of Health.

Some reputable observers in our country, as alluded to by Prof. J. G. Cabell, in his late address before the American Medical Association, have been hopeful in their success with other prophylactics in diphtheria and scarlet fever.

So good an authority as Prof. Binz claims that the antipyretic action of certain articles is a result of their antiseptic power. (See *Lond. Prac.*, XVI., p. 443, quoted *Phil. Med. Times*, Sept. 28, 1878.)

But we scarcely need to look thus far for evidence.

If we follow the clinical history of cinchona, we find that, from being ranked as a specific or antiperiodic, it has come to vindicate and define itself as an article introduced into the blood, which interferes with the domination of at least one specified infection. Chill and fever is admitted to depend upon infective particles received from without. Susceptible persons, who have never suffered an attack, are prevented therefrom by the introduction of the alkaloid as a prophylactic. This distinctly means that one outside infection known to be able to initiate and carry on prolific diseased action is deprived of that ability and suspended in its exercise of power by dealing with the individual easier than by dealing with his surroundings. It is the unimpeachable witness that in one notable class of cases it is possible to place beforehand in the blood, and, by repeated doses, keep present there, that which does suspend the animation of at least one infection, and so prevent the disease.

This is so well admitted that, as a reminder, we only need to refer to such a summing up and such an example as that recorded by Prof. H. C. Wood, Jr. (See Materia Medica). "The value," says he, "of the daily use of quinine to persons exposed to a malarial atmosphere has now been thoroughly tested in all portions of the world. The testimony is unanimous in its favor." A single citation will serve to illustrate the fact. Dr. J. B. Hamilton (*Indian Medical Gazette*, Nov. 1, 1873) reports the case of a battery of 135 men quartered at Jubbulpore, East Indies, in the same barracks with an infantry regiment. Each of the artillerists received three grains of quinine every other day; to the infantrymen none was given. The result was, that whilst 300 out of 500 men of the regiment were sick at one time with malarial disease, at no period were more than four per cent. of the battery affected.

Says Prof. R. Bartholow: "Quinia is used to prevent malarial *infection*. Numerous instances have been reported in which those using quinia as a preventive of malarial poisoning have experienced an exemption from malarial diseases when exposed to the most deadly miasma." *This great outstanding fact that there is one article, which, given in advance, can evade one infection, is never to be lost sight of in thinking of an epidemic.*

Because it so happens that quinine also aids to overcome the developed disease, we are not to obscure it as a prophylactic to at least one infective.

It is always possible, and in some degree probable, that the same article which acts so as to supersede an infective particle, and so prevent its self-assertion, will also act as a restraint, or as a curative, in maladies where the first paroxysm is not destructive, or the toxic tends to expend itself without malignancy.

But, because any article does not prove a remedy in an attack, we cannot infer its inertness as a preventive.

In some infections the era of manifestation is that of indisputable supremacy. The force is so explosive, the tainting of fluids and the disorganization of vital parts so early, or the exacerbation so distant, that we cannot hope to suspend an action hastening to the bitter end. The prophylactic in the severer cases may even prove an irritant, just as restoring food will irritate a perverted stomach.

That quinine has any superseding effect, after a malarial infection has had constitutional manifestation, is far more likely, owing to its less pernicious endowment and its periodicity of activity, than to any specific relation between this one infection and the alkaloid itself. While each kind of infection has its characteristics, yet they are allied in their methods of dealing and in their effort to set up septic processes.

We are greatly interested in experiments by Mayer, Hallier, Herbst, Polli, Binz, etc., which show the wonderful protective power of quinine before any infective action has been declared. In the proportion of 1 part to 300, it will preserve milk, urine, albumen, etc. It acts upon infusoria as well as upon the ordinary mould or fungi.

It may as appropriately be called anti-infective as antiseptic, quelling that movement which is the process by which the infective molecules of the inbreathed poisons do initiate their work and accomplish their virulence. Through the blood, in an unembarrassed state, "the cinchona alkaloids diffuse with great rapidity." Increased fluorescence is discernible in the crystalline lens in a half-hour after its administration, and as soon as that it is also present in the urine. It is possible even by small doses to maintain for a length of time its presence in the blood, as it is easily held in solution, or minute division in it, B.). "Recent researches have quite accurately demonstrated the nature of the action of quinia on certain constituents of the blood. It is a protoplasmic poison" (Bartholow, M. M., p. 127). It tells upon cells and all amœboid movements (compare Frey, p. 12). Amœboid movements are checked by it when only 1 to 4,000 parts is present. It impedes those blood-changes which are a part of the noticed effect of most infectives in their initial work (see Wood, pp. 60 and 61). It acts forcibly on all animal germinal matter, as well as upon the fungi which are the immediate cause of so many destructive changes.

With such facts as to a substance which it is possible to maintain for a considerable time in presence in the blood and secretions, and with the fact certified beyond dispute, that at least one class of infective particles, having entered into our being, *are* circumvented, suspended, and, so, any manifestation of disease prevented by this antecedent treatment, *have we not a prophylaxis of the individual which should make us intensely hopeful as to all those infective diseases received from without in a similar way?*

While there are destructive infective particles put in from without, there are also preservative and conservative particles to be put in which establish and maintain a condition of resistance.

What acclimatization does; what once having a disease often does; what vaccination does; and, most of all, in its present bearing, what quinia given in advance does, to prevent demonstration by the infective particles of malaria, make it not chimerical to be intensely hopeful that some other infective particles may be prohibited from that exercise of their power which is the fatal disease, by timely infusion into the blood of antagonistic elements which, in order to be timely, must be antecedent, prophylactic.

Two other articles may be alluded to as illustrative of the seeming control which can be exercised by a

continuous presence in the blood of antagonists to infective developments.

Chlorate of potassium, there is reason to believe, interferes with the action of infective particles. It is easy of absorption and maintenance in the blood "if the stomach be in a condition to absorb anything"—Barker, p. 410. Isambert found it in the saliva in five minutes after ingestion; in the urine in ten minutes, in which it continues from fifteen to forty-eight hours; in the nasal mucus, the tears, and the bile. Its power of permeation and harmless sustentation, and its aid in disposing of the products of change, so as to render them innocuous, is most manifest. It dissolves albumenoids, of which many conceive infective particles to consist, and insures the gradual oxidation of the organic constituents of fluids (B., M. Med., p. 638). Its introduction as a medicine (see West), its power over aphthæ and ulcerative stomatitis, the identification of cryptogamous growth (Gruby, Berg, Condie; Watson, p. 485), and Niemeyer, Chap. 1–8, Vol. I., p. 414–430) and fungi in some of the diseases over which it has chief control, are in accord with its hoped-for power over morbid processes dependent upon inhaled infections.

Tincture of chloride of iron—tinct. ferri chloridi—is another of the articles to be hopefully watched as likely to fortify the system against susceptibility to some infective particles and to prohibit the rapid disintegration which they attempt.

As preventive of the sedation or coaptation of infective particles to mucous surfaces, its corrugating and antiseptic effect is such locally as to interfere with implantation and absorption. When in the blood, it not only increases the contractility of the vessels mechanically, but also aids their vital contractility.

Our power to modify the condition of the blood by the use of this agent has received some interesting certification more recently.

The white and red corpuscles are seen to play not only the important rôle in health, but to be subject to great disturbance and diminution in rapid infective diseases. By means of Mal-as-sez, "Compte-Globules," or Globule Reckoner, or with the Hæmacytometer (see *Phil. Med. Times*, Sept. 28, 1878, p. 623), we can see what takes place under the administration of iron. The experiments of Rabuteau, in Paris, and of his confrères (see cit.), and of Prof. Gowers, of London, show what control we may thus exercise over blood-conditions. Even white blood-corpuscles can be made to take up small foreign particles (see Frey's Histology, p. 24). Our own prophylactic use for diphtheria and scarlet fever has been highly satisfactory. It seems to act directly "on the blood as an ozonizing agent." The chloride of iron, well laden with oxygen, chlorine, and iron, and having, in addition, muriatic acid, alcohol, and muriatic ether (W., p. 81), is resistant of infective degradations, and only fails in some of them as a remedy, because already its power is surpassed and outridden by that of the infection and by the inability of the diseased vessels to deliver it.

We allude to these as illustrations of hopeful prophylactics, to which not unlikely may be added salicylic acid, arsenic, alcohol, sulphurous acid, and some sulphites and chlorides found to have some restraining prophylactic power in general or in special adaptation to some classes of infectants, even though they entirely fail as remedies.

Our desire in this presentation is to draw special attention to the dealing with the exposed but unattacked individual amid rapid and destructive epidemics, instead of only with everything outside of him. The scourge is so portentous and the ravages so dire, that, while not neglecting any outside methods, we would be inquisitive as to what can be done upon the individual who cannot betake himself to flight.

May we not closely study his personal cleansing by detergent and antiseptic methods at his points of contact with the infected atmosphere about him? May we not ask how we may guard the common avenue of approach and protect its membrane, and all the more since in yellow fever the inbreathed air is esteemed the common carrier of the infection?

Shall we not most of all emphasize the facts which justify us in testing and asking others to test our ability to suspend the infective process by having present in the blood organs or tissues, such catalytic substance as shall either destroy the infective particle, or, as this is not essential, so stupefy, embarrass or suspend it, that it shall not be able to set up critically that morbid series of actions which constitute the violence of a disease.

The article of Dr. P. Selis, of Havana, as quoted in the *N. O. Medical and Surgical Journal*, Sept. 7, 1878, in reference to the Preventive Treatment of Yellow Fever in Havana, deserves to attract attention.

The ground of such hope is quite different from the hypothesis of specifics for each disease, but is based upon what does actually take place in prevention of malarial attacks, what is asserted by respectable authorities to have occurred as to diphtheria, scarlet fever, etc., and what may attach to many articles by virtue of their ability to infuse into the blood a resistive principle.

This is far more probable since we have come to know that we can for days maintain in the blood certain substances, which are known to interfere with the progress of changes similar to those which infective particles set up, and can perceive uniformity of effect if only the element is introduced before the toxic has embarrassed or nullified its capacity by changes already wrought.

After once having secured the presence of some such substances as we have named, as manifested in the saliva, urine, etc., it takes exactness of method and real discipline of administration, but very small doses, to maintain this action up to the point of securing resistance or benignancy.

The embarrassment to any one proposing such a method is, that so many claim to have tried these as *remedies* without avail, and so infer against their prophylactic value, or else have made trials in this direction which lack precision, continuance, and sufficiency of numbers.

We shall never lose the expression of Prof. Lister, as, one day, in his own Edinburgh University Hospital, he said: "I am always willing to be informed by the testimony of capable observers and accurate manipulators; but so many annoy me by having *somehow* used an antiseptic, and then telling me they have tried my method without success. When I come to find out what they have tried, I generally find that they have tried piecemeals, and these piecemeal failures should only stand as the tokens of inadequate trial and imperfect details."

It is just so with very many prophylactic trials in the past. There have been a few exact observers and a few trials which, as far as they go, have been expert; but there has been too great paucity of cases, as well as too few who have observed and tried *this* preventive method on a plan.

What we want is, that a large number of persons

in an infected locality shall be put under exact individual prophylaxis, under continuous medical supervision, with prescribed conditions of test. It will not do to rest on doubts and denials, accompanied by no particulars which will enable others to arrive at conclusions, nor, on the other hand, to accept without items such a statement as that of the New Orleans correspondent of the *Times*, who, under date of Sept. 20th, says: "There has been sufficient evidence adduced to show that quinine is prophylactic. One orphan asylum, containing fifty-six children, has not had a case so far. Since the outbreak of the epidemic each child has been constantly under the influence of the drug. Within your correspondent's knowledge there are fourteen unacclimated persons who have thus far escaped, although constantly exposed, who have regularly taken six grains of quinine a day in conjunction with arsenic." We since find the evidence still stronger.

All we claim is, that, with the facts as we have stated them before us, the time has come when we should be ready for a precise method of prophylaxis in the first epidemic, such as shall confirm or disprove views that are entertained.

Early in the recent epidemic some such views were expressed by us and forwarded with courteous attention; but the variety of other suggestions and the emergencies of multiplying cases and deficient aid, prevented satisfactory trial.

If only thus we can prevent—*i. e.*, go before the infected particle has had individual manifestation, as does quinine before the infection of malaria—we shall assist the other methods practised in a most radical and important way, and add to future hopefulness in the limitation of all infective diseases.

TWO CASES OF VARICOSE VEINS OF THE LOWER EXTREMITY, TREATED FOR RADICAL CURE AT THE PRESBYTERIAN HOSPITAL,

By ALFRED C. POST, M.D.,

VISITING SURGEON.

Case I.—James Johnston, laborer, æt. 45; admitted April 9, 1877.

Patient has had varicose veins on his right leg for the last twenty-five years. An ulcer appeared five years ago, on the external and posterior surface of the leg, and has remained open since that time. At different times other ulcers have occurred and have healed.

Present condition: Patient is a man of large stature, but of pallid complexion. Cicatrices of former ulcers are seen on both legs. There is an unhealthy ulcer, of the size of a silver half-dollar, on the posterior and external aspect of the right leg, about five inches above the ankle. On the inner side of the calf of this leg may be seen knots of enlarged veins, covering a space six inches long by three to four inches wide. The veins are movable under the skin.

The ulcer was directed to be poulticed two or three days, and then dressed with salicylic ointment.

April 15th.—The area of the enlarged veins was marked with nitrate of silver, that it may be readily defined after the application of an Esmarch's bandage.

April 16th.—The patient was etherized. Esmarch's bandage was applied around the limb, from the toes to a space three or four inches above the knee. An incision was then made longitudinally over the mass of enlarged veins, and by careful dissection the veins were fully exposed. They were tied above and below, and the included portions were excised. There was but a slight oozing of blood after the removal of the compression from the thigh. The wound was closed with numerous fine silk sutures. The operation was performed under carbolic spray, and Lister's dressings were applied.

April 17th.—Patient complaining of some pain in the limb. Temperature in the morning, 99°; in the evening, 100°. Dressings were not disturbed.

April 18th.—Temperature in the morning, 104°. Considerable pain in the leg. The internal saphena vein along the thigh, and the surrounding tissues, are inflamed. Removed the dressings. The wound looks well, but the skin of the leg is very red. There is a serous discharge from the upper end of the wound. The alternate sutures were removed. The wound was directed to be dressed with salicylic ointment spread on lint, and over this a roller bandage. For the phlebitis on the thigh, a blister ten by two inches was directed to be applied over the course of the inflamed vein. Ten grains of sulphate of quinine were directed to be given immediately. Temperature in the evening, 104°.

April 19th.—Temperature in the morning, 103¼°. Phlebitis subsiding, but the inflammation about the wound is increasing. The remaining sutures having been removed, the wound gapes throughout its whole extent. Temperature in the evening, 104¾°.

April 20th.—The flaps appear livid and inclined to slough. The discharge is profuse, but not fetid.

April 24th.—The inflammation of the saphena vein has almost entirely subsided. The inflammation about the wound on the leg is also disappearing. The temperature has steadily fallen since the last date. The outer flap has sloughed; there is also some sloughing of the fascia forming the floor of the wound. There are healthy granulations beneath.

April 26th.—The inner flap has lost its vitality, leaving a sloughy surface as large as a man's hand.

May 3d.—The old ulcer on the lower part of the leg is almost healed. The sore left by the sloughing of the flaps is beginning to contract. Adhesive straps were directed to be applied, to approximate the edges.

June 2d.—The strapping has rapidly reduced the size of the sore. From time to time since the operation it has been necessary to evacuate abscesses, and to lay open sinuses in the popliteal space and on the posterior aspect of the thigh, the sinuses having been formed by sloughing of the subcutaneous cellular tissue. This morning the thermometer indicated an unusual rise of temperature. Another abscess in the popliteal space is found to be the cause.

June 9th.—The sore does not make much progress towards healing. Directed the strapping to be discontinued, and the sore to be covered with cloths wet with liq. sodæ chlorinat., diluted with eight parts of water.

July 1st.—The temperature has approached its normal degree. The healing process is advancing, and the sore is now reduced to about half an inch in width. The patient is able to sit up. The strapping of the limb has been resumed.

August 4th.—Since the last report the healing process has steadily advanced, and to-day the patient was discharged cured.

Case II.—James Bracken, hostler, ætat. 54; admitted to the hospital August 28, 1877.

A year ago the patient first noticed that the veins in his left leg were enlarged. Since last Christmas the same leg has several times been covered with an eczematous eruption. The frequent occurrence of

swelling, pain and a sense of heaviness in the leg, would as often oblige the patient to stop work and rest for a few days.

On admission, his left leg was slightly swollen, and the skin red and scaly. Numerous enlarged and varicose veins were found closely adherent to the adjacent tissues. The internal saphena on the thigh is very tortuous, and its coats greatly hypertrophied.

A lotion of acetate of lead dissolved in water, ʒ j. to Oij., was directed to be applied to the limb; the patient to remain in bed.

Sept. 6th.—The eczema has greatly improved. To-day the patient was etherized, and five pins were introduced beneath the saphena vein, at intervals along that part of its course which lies above the knee. Small india-rubber bands were twisted over the ends of the pins so as to make elastic pressure upon the vein.

Sept. 13th.—No unfavorable signs have appeared about the seat of the operation. Removed one of the pins to-day.

Sept. 16th.—Two additional pins were removed yesterday and the day before. To-day the two remaining pins, viz., the one nearest to the groin and the one nearest the knee, were withdrawn. The operation has had the desired effect of occluding the vein above the knee. The direct channel to the general circulation being thus cut off, the danger of embolism from an operation on the veins of the leg is reduced to the minimum.

Sept. 23d.—Thorp's multiple cautery, heated to a red heat, was applied over the internal saphena vein at two places on the side of the knee, where the vein was very large and tortuous, the iron being allowed to burn its way into the vein. The sensibility of the part had previously been blunted with ether spray.

Sept. 29th.—The most prominent portions of the varicose veins on the inner side of the leg were punctured at twenty points with a single cauterizing needle heated to a red heat. Ice-water dressings were subsequently applied. No undue inflammation followed the operation.

Oct. 11th.—The knots of veins on the anterior and external side of the leg were treated in a similar manner, and with like favorable results.

Oct. 20th.—Discharged cured.

The radical treatment of varicose veins, by any of the means employed by surgeons, is attended with some danger to the life of the patient. And on this account the palliative treatment, by well regulated and uniform pressure, is to be preferred in the great majority of cases.

But in aggravated cases of the disease, rendering the patient unable to earn his living or to support his family, the radical treatment becomes necessary. And in selecting the means of obliterating the diseased veins, we should always aim to accomplish the object in such a manner as to reduce the danger to its lowest degree. The remarkable absence of unfavorable symptoms in the second case herewith reported, would seem to indicate the elastic ligatures and the cauterizing needles as worthy of further trials in the treatment of this troublesome disease.

Bright's Disease and Resina Copaibe.—A case of Bright's disease showing the remarkable diuretic effects of *resina copaibæ* is reported in the *British Medical Journal* for November 9th. Fifteen grains thrice daily caused the amount of urine passed to increase, in twenty-four hours, from f. ʒ xxxv. to f. ʒ cxxxix.

CONGENITAL MALFORMATION OF TRICUSPID VALVE; LESIONS OF ALL FOUR VALVULAR ORIFICES—SURVIVAL FOR TWENTY YEARS, WITH FEW HEART-SYMPTOMS DURING LIFE.

By ALFRED LUDLOW CARROLL, M.D.,

UNIVERSITY OF NEW YORK.

On the 21st of May, 1878, I was called in consultation by Dr. Arnoux, of West New Brighton, to examine Mrs. V. D., aged 20, who had, within a few days, been attacked with cardiac disturbance of an alarming nature.

I learned from Dr. Arnoux that he had attended the patient in her first confinement, a natural labor, nineteen months previously; and again, about three weeks before our present visit, for a remittent fever, from which she had recovered after a brief illness. On neither of these occasions had there been any symptoms to direct his attention particularly to the heart. She was said to have suffered much from rheumatic muscular pains, but there was no history of acute rheumatism. The existing seizure had been sudden in its access, with much prostration, rapidly increasing dyspnœa, and frequent faintings.

Her aspect was of waxen pallor; pulse rapid, feeble, compressible, and irregular; skin cool. Frequent paroxysms of orthopnœa; the "ladder-like" Cheyne-Stokes respiration typically marked. Feet and ankles slightly œdematous; some ascitic accumulation; liver and spleen enlarged.

The apex-beat of the heart was about two and a half inches to the left of the nipple-line; area of cardiac dulness greatly increased. On auscultation, there was a rasping systolic bruit, loudest towards the apex; the aortic second sound very feeble, and accompanied by a brief, faint murmur; over the pulmonary artery a distinct systolic sound could be heard, and a similar but softer blowing could be detected over the right ventricles. Struck by the apparent signs of congenital malformation, I made further inquiry of the patient's mother, and learned that during infancy and early childhood several physicians had said that her heart was affected, and that she "would never live to grow up;" but that, at the age of about sixteen, she became stronger, gained flesh, and was able to exercise without discomfort.

With such extensive lesions and manifest rapid dilatation of the heart, the prognosis was, of course, hopeless; palliation of the more distressing symptoms during the few remaining days of life being the utmost that we could expect. Under the influence of digitalis and belladonna, with diffusible stimulants, great relief was afforded for a few days. The improvement, however, was but transient, and she rapidly sank, hydropericardium supervening, and death by syncope occurring on the 4th of June.

Sectio cadaveris, made June 5, 1878, permission to examine the heart alone having been obtained: Body fairly nourished; rigor mortis not well marked; abdomen distended. On raising the sternum the pericardium was seen occupying the entire space between the sternal ends of the ribs. It contained about ten fluid ounces of serum; no signs of active pericarditis. The heart itself was more than double the normal size. All the cardiac cavities were filled with soft black coagula; their walls thin and pale; a small ante-mortem clot in right ventricle. Fossa ovalis normal. Pulmonary orifice narrowed, barely admitting the tip of the finger. The tricuspid opening

presented a single apron-like valve, attached to the anterior half of the circumference of the orifice, the posterior half of which was a simple cartilaginoid ridge, destitute of any rudiments of cusps. The aortic valves were insufficient and devoid of corpora arantii. The mitral cusps were loaded with warty vegetations, and their edges thickly fringed. The "undefended space" was thin, but intact. Pulmonary artery small; aorta flaccid; great vessels otherwise normal. The lungs were not removed nor incised; they were small, and their surface pale. The diaphragm was bulged upward by ascitic fluid.

I do not recollect any recorded instance of a similar tricuspid malformation, which, regarded as an early arrest of development, would seem to have been rather the cause than the consequence of the pulmonary stenosis. Obstruction of the pulmonary orifice is undoubtedly the commonest of congenital lesions, and in numerous examples has naturally entailed permanent potency of the foramen ovale or solution of continuity in the interventricular septum; but in the present case it appears probable that the fœtal insufficiency of the tricuspid, greatly reducing the ventricular pressure, permitted the pulmonic opening to retain an infantile calibre. Of the lesions in the left heart, the aortic was presumably congenital, the mitral acquired, though evidently of long-past date. Aside from the pathological rarity of the case, it is matter for wonder that the patient should have lived as long as she did with a heart so grievously crippled, and that, too, without marked cardiac symptoms for several years. It is likely that the malarial anæmia and hepatic engorgement were the immediate causes of the rapid failure and dilatation of the heart.

NEW BRIGHTON, N. Y.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL, PHILADELPHIA.

SERVICE OF FRANK F. MAURY, M.D.,

VISITING-SURGEON TO THE HOSPITAL.

(Reported for THE MEDICAL RECORD.)

LUMBAR COLOTOMY FOR STRICTURE OF THE RECTUM DUE TO SCIRRHUS.

——, æt. 43, has enjoyed fair health until within the past fifteen years; does not know of any local injury to the parts; has not passed any foreign body by stool, and has never injured herself with a syringe, etc.; was never troubled with constipation; has been operated upon for internal hemorrhoids; has suffered for the last two years from disease of the uterus; during this period there has been alternate constipation and diarrhœa. The pain following defecation has quite frequently lasted until the next stool. During the past two months there have been constant shooting pains in the neighborhood of the rectum. Her passages vary from two to eighteen a day; they are small and slimy, and frequently contain lumps of hardened fæces; now and then the stools are wire-drawn. Quite recently a sanious and offensive discharge has accompanied the stools; now and then there has been great pain during micturition. The woman often has fever in the afternoon, and has lost altogether some forty-five pounds of flesh. She has been in the habit of taking over f ℥ i. of laudanum daily to quiet the pain.

In commenting upon the case, preliminary to operation, Dr. Maury said: "The operation of colotomy was first performed by Littrè, in the year 1710. He opened the sigmoid flexure in the left iliac region. In 1776, Pillore, a surgeon of Rouen, opened the cæcum in the right iliac region. In 1796, M. Callisen proposed an operation upon the left umbilical region, the incision to be made vertically; but he never carried out his idea. The next surgeon to attempt the operation was Finè, of Geneva, who, in 1797, opened the transverse colon in the umbilical region. So much for the pioneers in the field.

"Very little thought was given to the matter, however, until the time of Amussat, who, in the year 1839, published a treatise on 'The Possibility of Establishing an Artificial Anus in the Lumbar Region.' Though the fact is contested, it is generally believed that Amussat did, in reality, perform his operation upon the celebrated Broussais, whom he was treating for a cancerous affection of the rectum. Of all the operations for colotomy, that of Amussat is generally conceded to be the best.

"The conditions for whose relief the operation may be performed are the following, viz.: 1st. To relieve a distended bowel when an otherwise insurmountable obstacle exists in the rectum and sigmoid flexure. 2d. To remove or mitigate very intense pain caused by the passage of fæcal matter over a cancerous surface, or when the fæces pass into the male bladder through a perforation in the gut, or when motions pass into the vagina, causing a perpetual incontinence of fæces. 3d. To relieve or cure an otherwise incurable stricture and ulcer of the rectum. (See Allingham, St. Thomas's Hospital Reports for 1870.)

"Before beginning to operate, it is in all instances necessary to make a mark on the skin over the course of the incision. The descending colon is always normally situated half an inch posterior to the centre of the crest of the ileum—the centre of the crest of the ileum being a point midway between the anterior superior and posterior superior spinous processes of the ileum. A line, four inches in length, should therefore be drawn midway between the last rib and the crest of the ileum. The centre of the incision or line should correspond with a spot half an inch posterior to the centre of the crest of the ileum.

"The patient should be placed upon a hard couch, in a prone position, with a slight inclination to the right side; a hard pillow should be fixed under the left side, so as to render the loins tense. The operator should always stand in front of the patient.

"The incision should be transverse, or downwards and forwards, as recommended by Bryant. The cut should be of the same length all the way down, otherwise the operator finds himself working in a round pit, when he needs all the room he can get.

"In most cases it will be easy to distinguish the gut by the longitudinal bands of muscle, by the hardened fæces, and by its greenish color.

"After the intestine has been found, it should be drawn out, and an incision made in it about an inch long. The edges of the incision should be stitched to the edges of the external wound. In stitching these parts together a silk suture will be found to be better than a wire suture. The sutures should be passed before the gut is opened, so as to prevent any of the fæces escaping into the wound or abdominal cavity.

"After the sutures have been secured, the wound should be covered with oiled lint, and over this oakum should be laid; a sedative should then be administered, and the patient kept quiet in the recumbent position.

"The sutures may be withdrawn on or after the fifth day. To protect the clothes of the patient from the constant fæcal discharges, an india-rubber cap may be worn; or, what is better, simply a folded napkin applied.

"The morbid conditions which it is desired to remedy by performing this operation to-day are the rectal stricture and the constant racking pain to which the woman is a victim. The stricture is, no doubt, caused by some carcinomatous growth, which will not get well. The operation is by no means an easy one, being attended by not a few dangers and difficulties.

"Dr. Allingham, of St. Thomas's Hospital, who has published a paper on the subject in the St. Thomas's Hospital Reports, has performed the operation some fifty times in all, and has made over fifty dissections.

"As he has shown, there is great danger of the patient's dying on the table from shock, and also considerable danger of peritonitis. In some cases there is so much fat in the parietes and omentum, that it is really quite difficult to reach the colon."

The woman being placed in the proper position, and being thoroughly under the influence of the anæsthetic, Dr. Maury proceeded to make the incision, standing well in front of the patient. The assistants had first, however, painted with iodine on the skin of the left side, a line four inches long, and midway between the last rib and the crest of the ileum.

The operator began his incision as near to the spine as possible, saying that the nearer the incision is to the spine, the less danger is there of injuring the peritoneum. In placing a patient on the belly, while under the influence of an anæsthetic, Dr. Maury had occasion to say that one must needs be very careful that the arms are extended, and do not in any way interfere with the proper expansion of the chest.

The first steps of the operation were retarded by the enormous quantity of adipose tissue present. The operator first exposed the quadratus lumborum muscle, and penetrating the deeper tissues, finally reached the recti spinæ mass. There was, fortunately, but little bleeding up to this point. The lumbar fascia was then brought to view, and divided layer after layer. Here, one of the smaller vessels supplying the part sprang a leak, and was promptly ligated.

Coming upon something which seemed to be intestine, it was hooked up, but turned out to be nothing more than a mass of omental fat. When the gut was finally encountered, it was transfixed with a needle and tacked up well to the lips of the external wound. After the sutures had been secured, an incision about an inch in length was made between the lines of the sutures.

The patient reacted well from the operation, there being no symptoms whatsoever, either of shock or of peritonitis. After the operation, and during recovery, the woman was cut down to a daily quantity of laudanum not exceeding f ʒ i.

She is not yet out of bed entirely, but has been brought before the class upon several occasions, and seems to be making a most excellent recovery.

The operating surgeon was assisted by Drs. John H. Brinton, John Packard, and J. William White, members of the surgical staff of the house.

LAPARO-ELYTROTOMY was performed by Thos. Whiteside Hime, B.A., M.B., lecturer to Sheffield School of Medicine, on July 14th of this year. This is, probably, the first performance of the operation in Europe since its revival by Dr. Thomas in America.

Progress of Medical Science.

A NEW POINT OF ORIGIN FOR THE OPTIC NERVE.—Dr. Stilling, of Cassel, asserts that the opinion hitherto held, that the fibres of the tractus opticus have absolutely no connection with the elements of the crus cerebri, is not correct. According to him, a considerable portion of the opticus fibres spring from a large nucleus situated in the foot of the pedunculus cerebri, beneath the substantia nigra. This nucleus has an almond-shaped outline both on vertical and horizontal sections, hence it would not be inappropriate to call it the nucleus amygdaliformis. The bands of fibres entering it from the tractus opticus, in order to reach it, must diverge sharply from their original direction, so as to form an arch. It is probable from the position, size, etc., of this nucleus, that its function is to preside over reflex excitations.—*Centralblatt für die Med. Wissen.*, No. 22, 1878.

CARBOLIZED JUTE is now being used in antiseptic dressings in the place of the Lister gauze. The following is the formula of Dr. Münnich, for its preparation:

Carbolic acid crys.,	50.0 grams	.....	ʒ iss.
Resin	200.0 "	.....	℥ viss.
Glycerine	250.0 "	.....	℥ viij.
Alcohol	550.0 "	.....	℥ xviij.

The resin is mixed with the greater part of the alcohol and dissolved by the aid of heat; after cooling, the carbolic acid is added, having been previously mixed with the rest of the alcohol. After a few minutes add the glycerine. The jute is thoroughly saturated with this mixture, and dried. The addition of 50 grms. (ʒ iss.) of stearin will make the jute more flossy, but it takes longer to dry.—*Dr. Little, in Am. Clin. Lectures*, Vol. III., No. 11.

THUJA OCCIDENTALIS IN EPITHELIOMA.—Dr. John B. Rice, in the *Michigan Medical News* for Dec. 10, 1878, reports a case of supposed epithelioma of the inferior maxilla, of four months' existence, with tumefaction of the submaxillary and sublingual glands. The patient was a man 72 years of age. The ulceration continued to extend in spite of the various modes of treatment adopted. He was put on fourteen drachms of the tincture of thuja occidentalis (arbor vitæ) daily, made from the fresh leaves. In addition, he took five grains of the tart. of iron and potassa, one grain of quinia, and one-fortieth of a grain of arsenious acid. Under the above treatment the ulcer gradually assumed a more healthy appearance. The tumefaction of the glands diminished, and after four months perfect recovery took place.

NECROSIS WITHOUT SUPPURATION.—William Colles, M.D., in the *Dublin Journal of Medical Sciences* for December, 1878, reports the following case:

"F., aged 15, healthy, was thrown from a carriage and received some bruises on the face; also there was a slight transverse wound, about one-fourth of an inch, at the ulnar side of the left wrist close to the joint. Through this opening projected a small piece of very rough bone, which was considered to be the lower end of the ulna broken off and projecting. It could not be restored or retained in position. Two days later she was put under the influence of chloroform, but it was still found impossible to restore the natural form of the limb. It was therefore determined to remove the projecting piece. With this view the piece was caught in a forceps, and a direc-

tor passed behind it. It was found that the latter instrument could be easily passed for a considerable distance in all directions without obstruction from ligamentous or other attachments. On bending the hand backwards, and pressing the director inwards, there slipped out a portion of bone two inches long. On examining the forearm, the bones seemed quite naturally in their position, but perhaps slightly larger than those of the opposite limb. On examining the bone extruded, it was much smaller than would be expected in a person of her age; it was quite devoid of periosteum; no cartilage or epiphysary end, but a small rough deposit of new bone; the upper end irregular, jagged, but in no part did it present any appearance of its having been acted on by living parts; and on section—which was difficult, from the dryness and friability of the bone—the medullary cavity was the same as in ordinary section of bones.

"On further inquiry it was found that about eight or ten years ago the patient fell and received what was called a sallyswitch fracture of both bones; this was treated by splints and rest; she recovered with perfect use of the limb, but there was a slight thickening of the bone.

"That this was a case of necrosis there can be no doubt; and if it was the result of injury, it must have been of only two days' duration, which is scarcely possible, for the bone to die, to lose its periosteum, cartilage, and epiphysary end, and for a new case to be formed around the dead bone. Hence it was more probably the result of the fracture received so many years ago."

On the Use of Pyrogallic Acid in Internal Hemorrhages.—In the *Dublin Journal of Medical Sciences* for December, 1878, Dr. Vesey advocates the use of pyrogallic acid in hemorrhage in phthisis in the hemorrhagic diathesis and from the intestines. He gives it in a one-grain dose, repeated every hour.

He claims for it the following advantages: the dose is small; it does not derange the stomach; it does not cause vomiting, as iron and ergot mixtures sometimes do; it is easily taken, and has no disagreeable after-taste. It appears to be more rapid and certain than other remedies.

A spirit solution of definite strength affords a convenient and ready method of administration. It is readily soluble in water or spirits.

A Fatal Case of Railway Spine.—At a recent meeting of the Medical Society of the College of Physicians in Ireland (*British Medical Journal*, Nov. 30, 1878), Dr. McSwiney detailed at length the particulars of the case of a young unmarried lady, who had been severely shaken exactly six weeks before her death in a collision between two trains on the Kingstown and Dalkey Railway on February 27, 1878. Unfortunately, a post-mortem examination was not permitted. In this patient, the remote sequelæ were more noticeable than the immediate effects, and this agrees with what has been observed by others as to the results of that form of "shock" which is consequent on a railway collision. Wasting and epileptiform "fits" were marked symptoms about the end of the illness. The general muscular atrophy was very considerable; so much so, that the patient presented, towards the close of her life, an extremely wasted appearance. The "fits" ushered in the final event. The progressive muscular atrophy was due, doubtless—as possibly was also the quick pulse—to some morbid condition of the sympathetic ganglia; whilst the convulsive symptoms would perhaps indicate ultimate extensive degeneration of the spinal cord, following upon the original "jar" or "shock" to the organ. Suspicions (sometimes, doubtless, well founded) are often entertained that patients "malinger" after railway accidents, and even that death, when it occurs, is due to some cause other than the collision. The following physical facts, however, were to be observed in this case: *a.* Vaso-motor paralysis, indicated by flushings and injected conjunctivæ; *b.* An affection of hearing, denoted by the effect produced by street noises; *c.* Disturbed nutrition, evidenced by wasting; *d.* Certain neuroses, *i. e.*, hysteria and epileptiform convulsions; *e.* Quick pulse, which is almost constant in railway injuries; *f.* Change of character, sleeplessness, and constipation.

Compensatory Emphysema in Acute Thoracic Diseases.—Dr. Reuben J. Harvey has endeavored to disprove the idea that the peculiar condition of resonance, sometimes amounting to tympany, met with in the course of certain acute thoracic diseases (pneumonia, pleural effusion, etc.), can be due, as held by some, to the development of compensatory emphysema. The fact being established that the distending force acting upon the lung in inspiration can never be greater than fifteen pounds to the square inch, it was argued that the one essential condition for the production of compensatory emphysema is that a portion of lung should have to expand into an abnormally large space—too large, in fact, for its natural expansibility. Such a state of things is met with in certain conditions of pleural adhesions; but, in the case in question, this condition was not present, but, on the contrary, the very reverse existed: the unaffected portion of lung occupied a very much smaller space than usual, and was often found post-mortem collapsed to its normal undistended volume. The views put forward in modern text-books—as, for example, those by Guttmann and Gee—were shown to be in accordance with these anatomical conditions. According to them, diminished tension of the pulmonary parenchyma is a source of tympany; and this, and not the reverse condition of normal distention, is the cause of the phenomenon in question. According to Guttmann, the normal chest percussion-sound is due to three factors, viz.: vibration of the chest walls, vibration of the air in the lungs, and vibration of the tense pulmonary parenchyma; and it is owing to the musical interference of these factors that a tympanitic note does not exist. A lung taken from the body, and percussed in its collapsed condition, gives a tympanitic note; but, if distended to its normal intrathoracic volume, it gives a non-tympanitic sound. The disappearance of the tympany is due to the new factor introduced by rendering the parenchyma sufficiently tense to be itself a source of vibration; or, in the reverse case, when the tension is diminished, owing to a large hepatized globe or a pleural effusion, a cause of interference is lost, and tympany is developed.

Gastro-elytrotomy.—A very interesting historical account of this operation, by Henry J. Garrigues, M.D., has been reprinted in pamphlet form from the *New York Medical Journal*. It was first proposed by Joerg in 1806, but his idea was an incision in the median line involving the peritoneum. In 1820, Ritgen, profiting by Joerg's suggestion, and improving on it, performed the operation by a lateral incision above Poupart's ligament and elevating the peritoneum. He incised the vagina, however, instead of tearing it, and the operation was abandoned, a living child being delivered by Cæsarean section. From 1823 to 1844 Baudelocque, apparently ignorant of

his predecessors, championed this operation or some of his numerous proposed modifications of it, and performed it in two cases unsuccessfully. From this time it was forgotten, or mentioned only to be deprecated by the authorities on obstetrics, until 1870, when Dr. T. G. Thomas performed it, and delivered a living child. Dr. Thomas has since operated once, and Dr. Skene, of Brooklyn, three times, making in all five cases; of these, three of the mothers are still alive, and four living children were delivered; the fifth child was dead before the operation was undertaken, and the two women who succumbed were in *articulo mortis*. The necessity of tearing the vagina instead of cutting it is strongly insisted upon, as troublesome and even dangerous bleeding from the vaginal plexus is thus avoided. The operation cannot be repeated upon the same side, as it would be impossible to raise the peritoneum and lift the vagina. When the head is wedged in the pelvis so that it cannot be pushed up, the incision of the vagina becomes impossible, and the operation is contra-indicated. The obstruction offered by the presence of a solid tumor in the vagina or uterus, or by atresia or coarctation of the vagina, may also be a sufficient contra-indication. Dr. Garrigues's conclusions are: 1. Gastro-elytrotomy ought, when possible, to be performed instead of Cæsarean section in all cases; and instead of operations by which the fœtus is broken up when these would be particularly difficult, especially when the smallest diameter of the pelvis measures two inches and a half or less. 2. It does not require exceptional skill, or rare instruments. It is, indeed, less difficult than ovariotomy and herniotomy. 3. Five assistants are desirable, and four indispensable, in order to carry out Thomas's plan.

Treatment of Scrofulosis by Tayuya.—Starting from the idea that scrofula is allied to syphilis as well as to tuberculosis, Dr. Alpagonorello was led to try in the first-named disease the tincture of tayuya, which has been employed with success by Dr. Faroani in the treatment of syphilis. The results so far have been very satisfactory. He administered it internally in doses of from two to ten drops a day in several chronic cases of hypertrophied and suppurating glands, employing it at the same time externally as a lotion in the proportion of four parts of the tincture to 200 of water. Within a few weeks the wounds had healed, and the general health of the patients had greatly improved. The remedy deserves further trial, especially as it possesses a great advantage over cod-liver oil in having no unpleasant taste or smell.—*Allg. Med. Cent. Zeit.*, Nov. 2, 1878.

On the Employment of Laminaria Digitata in Catheterism of the Lacrymal Passages.—Dr. Rousseau recommends the use of a wedge of laminaria digitata in place of the pointed stylet usually employed to dilate the punctum lacrymale previous to catheterism. The use of this stylet is painful, and, as a rule, alarming to the patient. He shapes with a knife a small wedge of laminaria, about one-third of an inch in length, pointing it sharply at one end. This sharp end is easily introduced into the punctum, and at the end of five or six minutes the wedge is swollen by the imbibition of tears, and the punctum sufficiently dilated to allow of the passage of any desired instrument.—*Jour. de Méd. de Bordeaux*, Sept. 7, 1878.

Rheumatismus Acutus Diaphragmatis.—The diagnosis of a rheumatic or neuralgic affection of the diaphragm can rarely be made with anything like certainty; but in the following case, which occurred in the Vienna General Hospital, the clinical history was thought to admit of no other interpretation. The patient—a strong, muscular butcher, 27 years of age—was seized on the morning of his admission to the hospital with exceedingly violent pains, radiating from the pit of the stomach to the back. The respiration was quick, short, and superficial, and purely thoracic; the abdominal movements which attend contraction of the diaphragm being almost entirely wanting. The face was congested, but there was no febrile movement. The patient, though a strong man, seemed to be entirely overcome by his suffering. The examination of the thoracic organs revealed nothing abnormal. A hypodermic injection of morphine relieved the pain at once, and produced a quiet sleep. On the following morning the patient complained of pains in the right scapular region, but the respiration was not interfered with. A careful objective examination again gave negative results. An injection of morphine at the seat of pain proved as promptly efficacious as on the preceding day. On the third day the patient was discharged entirely cured.—*Bericht der k. k. Rudolph-Stiftung in Wien*, 1877.

Development of Aortic Insufficiency in a Case of Acute Rheumatism Treated by Salicylic Acid.—Dr. Mader, of Vienna, reports this case as the first occurring in his experience, in which a valvular affection of the heart was developed in the course of an attack of acute rheumatism treated by salicylic acid. The patient, a waiter, 25 years of age, was admitted into the Vienna General Hospital on April 25th with a history of having suffered for four days from fever, pains in the joints, and a stitch in the side. There was no swelling of the joints, and the heart-sounds were normal. On the 27th there was distinct swelling of the joints, and the patient was ordered 75 grs. of salicylic acid per diem. On the 29th the articular swelling had diminished, and the daily dose of the acid was reduced to 60 grs. On May 3d the improvement was so great that the acid was stopped. On the 5th of May it was noticed, for the first time, that the heart's impulse was heaving when the patient lay on the left side; and an examination then revealed a distinct, blowing, diastolic murmur at the aortic opening, and a muffled sound in the cruralis. It was impossible to say exactly when the endocarditis revealed by these physical signs had begun; but it was, at all events, certain that no murmurs existed at the time the salicylic treatment was initiated.—*Bericht der Rudolph-Stiftung in Wien*, 1877.

Colchicine Injections in Ischias.—In the cases of two girls suffering from sciatica that had already become somewhat chronic, Dr. Mader, of Vienna, made repeated trials of the injections of a one per cent. solution of colchicine, recently recommended so highly by Heizfelder. The injections caused as a rule exceedingly severe pain, followed by swelling and great soreness, which persisted for several days. The patients on a few occasions stated that their old pains were diminished for a short time after the injection (perhaps deadened by the new pains), but on no occasion was a permanent effect obtained.—*Bericht der k. k. Rudolph Stiftung in Wien*, 1877.

A Good Tooth-Paste.—℞. Cretæ precip., 16 oz.; pulv. iridis., 4 oz.; pulv. ossis sepiæ, 1 oz.; magnesiæ carb., 2 oz.; moschi, 4 grs.; essent. bergamot, 2 drachms; ol. cinnam. ver., 2 min.; cochinillæ, 2 drachms; syr. simp., q. s. ut. f. past. dent.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 18, 1879.

THE CARE OF THE INSANE.

MANY of the annual reports of these institutions have lately been presented to the public. A study of their contents cannot but suggest some uneasy feelings to the taxpayer as well as to the humanitarian. We find that, even in so millennial a spot as Massachusetts, $3,000,000 were spent in erecting the last two of its four great asylums; and other States are not behindhand in such large expenditures. It is impossible not to feel that there is some extravagance in thus devoting a million and a half of dollars to the erection of a magnificent edifice, which is subsequently to board one hundred and fifty lunatics at six dollars a week. Still it is not so much the mere expenditure of this money to which there is objection. No one can begrudge the unfortunates anything that may help them. But too often these structures only exhaust the State funds in embalming the aspirations of the architect, and are not especially adapted to the improvement of the insane. Their inmates do not need opportunity to saunter through marble halls half as much as they require the watchful attendance of a physician. And we find that, after the asylum is built, there is generally not enough money to supply the patients with effective care. In many places there is only one physician to three or four hundred patients, and one nurse or keeper to forty or fifty patients. The physicians who are in attendance are either poorly paid, or not paid at all, and only the medical superintendent remains in the institution long enough to become familiar with its workings.

An asylum must be very favorably situated if it have a pathologist connected with it. Yet in insane asylums the mortality is often as great as it is in a regular hospital. The insane are liable to phthisis, and they often develop it without giving any rational signs at first. There are affections of the special senses, of the nervous system, and there are surgical troubles which complicate or cause the insanity. All these things, as well as the disease itself, call for the attention of skilful men. Therefore we cannot see the propriety of spending a thousand dollars on the landscape garden, and only six hundred on an attending physician—a proportion too often observed. In addition, the construction of these costly asylums perpetuates a system of treatment which may before long be abandoned as unscientific and inefficient. It is not too much to suppose that something better can be devised than the present plan of allowing patients to mope all day in a dreary corridor, and exhilarating them once a week with a dance or a drive. Already an entirely different system is successfully working on the other side of the water.

It is estimated that the average duration of life of a person who becomes insane at the age of thirty is from seventeen to twenty years. His cost to the State during this time, at the lowest estimate, is over three thousand dollars. It is evident, therefore, that the cure of the insane is an important item even from a financial standpoint. It falls especially upon the medical profession to see that the best means are taken to secure this end. And for securing it we not only need less extravagance at first, and ill-judged expenditure or parsimony afterwards, but better regulations in regard to the admission and discharge of patients will have to be adopted. It is well known that the earlier a case of insanity is placed under treatment the better chance there is of recovery. But if a poor and friendless man becomes insane, he is very likely at first to get into a poor-house, a work-house, or a prison, and there remain for a longer or shorter period. At the same time, the asylums themselves are constantly overcrowded, and, in this State at least, the percentage of insane has been increasing at a rate vastly greater than that of the population. There can be little doubt that part of this is due to the abuse and misapplication of this charity in common with that of so many others.

The expenditures for the insane have been very large, and their steady increase seems at times appalling. It is greatly to be hoped that a feeling may be created which will compel a more rational and judicious application of the appropriations for this unfortunate class.

THE STATE MEDICAL SOCIETY.

THE Medical Society of this State consists of two sorts of members: First, those who are elected quadrennially by the county societies to represent and guard their interests, with the title of delegates; and second, those who, having actually served as such for a stipulated period, are elected by the Society permanent members. Both delegates and permanent members, when in attendance at the sessions of the Society, enjoy the same rights and privileges, except that the delegates are in a measure subject to the control of the county societies, and obliged to

act in accordance with the instructions that may be given them. The permanent members are independent in this respect. A good many years ago, however, the permanent members obtained the ascendancy, and enacted a by-law which restricted certain important offices to their own members, and by their influence, not sanctioned by law, kept almost constant control of the higher offices of the Society. This power was so well consolidated that it has been asserted that the presiding officer could determine who his successors should be for several years after. The first attempt to break this monopoly was made in 1877, by the then president, Dr. Squibb, who, in his opening address, recommended that the by-law which gave the presiding officer the power to appoint the nominating committee, should be changed in such a way that this power should accrue to the Society itself. The special committee to whom the president's address was referred, reported adversely concerning this recommendation, but the Society, by the requisite two-thirds vote, adopted it. (*Trans.*, 1877, p. 41.) The next step was the report by Dr. Hutchin (*Trans.*, 1878, p. 53), which clearly exhibited the impropriety and illegality of the by-law restricting certain offices to permanent members. This by-law, although disregarded for the last year or two, still remains unrepealed.

The renewed importance that this action of the State Society confers on the office of delegate is not to be overlooked, and our satisfaction is only tempered by the regret that these first steps toward reform were not taken by the members from our own county. While thus offering words of commendation we must at the same time draw attention to one or two matters that still need correction. The functions of the Society are of a two-fold character, scientific and legislative. The presiding officer usually makes it his special duty to see that the Society does not suffer as regards the former, and as a consequence there is always a full supply, in fact, a superabundance of literary offerings — brain-food in plenty. As regards the latter, it must be remembered that the whole medical policy of the State is shaped by the action of the Society, and that upon its wise action depends in a measure the material welfare of the profession. As a matter of necessity all questions pertaining to this should receive the most careful consideration. This is impossible in full session, unless the points at issue be thoroughly examined in advance by appropriate committees. To do this the committees should have ample time at their disposal, so that all of them, if necessary, may conduct their private deliberations simultaneously. At the last meeting this could not well be done, as one gentleman was a member of two important committees, and another gentleman was a member of three. Of the two hundred members in attendance was it not possible to find a larger number who were able to share this labor?

The second point to which we direct attention is the exhibition of surgical instruments patented by physicians. The Code of Ethics of the American Medical Association, to which the State Society demands the adherence of all physicians under its jurisdiction, declares that it is "derogatory to professional character," . . . . "for a physician to hold a patent for any surgical instrument or medicine." At the last meeting several such instruments were openly exhibited in the antechambers of the session-room of the Society. One of these was patented by a physician from Kings County, and another by one who is high in office in one of the societies in the central portion of the State. Lastly, the seats of members were cushioned with the advertisement of still another patented appliance, which, moreover, was highly recommended by a late officer of the State Society itself! Surely, if the patenting of instruments by physicians is proper, the State Society should formally release the members of the county societies from allegiance to this portion of the American code. If, on the other hand, it is improper, the State Society exhibits a shade of inconsistency in permitting the exhibition referred to within the apartments presumably under its control. If abuses and loose methods of transacting business are again to be a feature in its management, the State Society will soon lose the respect of the profession, and become the prey of medical politicians, rather than the arena for the display of the highest and best thoughts of medical statesmen.

SOCIAL SCIENCE AND ADULTERATIONS.

THE American Social Science Association held its annual meeting at Boston last week. As this science is a very elastic department of human knowledge, the yearly assembling of the Society furnishes excuse for papers on a very wide range of topics. Consequently it happened that some contributions of interest to the medical profession were included. Bearing in this direction was an essay by the Secretary on the evils of ill-constructed tenement-houses and other buildings, in which the people live, work, or are educated. And New York was asserted to head the list of cities whose poor are badly housed — a fact perhaps not especially new.

A more notable paper was read by Mr. G. T. Angell. It was entitled "Public Health Associations," but treated especially on adulterations. According to Mr. Angell, we are in an extremely bad way. Nearly everything we eat, and most of the things we wear, are adulterated. Our cook, wearing a poisoned dress, puts poisoned food in a poisoned dish, and sends it up to be eaten in a poisoned atmosphere. Our bread, made of potatoes and alum, is covered with butter made from the fat of unknown animals and alive with parasites. We pour our watered milk into adulterated tea and sweeten it with sugar made heavy with iron and corrosive with acid. We shake out red lead

with the Cayenne pepper and spread on chromate of lead with our mustard. Our baking-powders are adulterated with alum and terra alba; the terra alba is mixed with sugar and cream of tartar; sugar is poisoned with tin and iron, while even the tinware is made dangerous with lead. And so on in a toxic round of very depressing proportions.

Now, while all these adulterations probably occur, we have no doubt that most of them are infrequent or innocuous. We imagine that Mr. Angell knew this also, but hoped to create a deeper impression by a massing of his facts. There is, indeed, reform required in this direction, and for a reform we need an alarmist. Therefore, Mr. Angell's facts have their uses, though they need not throw the public into a state of anorexia, as they might well do if taken literally.

As the practical outgrowth of this contribution, a petition was circulated praying for the incorporation of "The Public Health Association of Massachusetts."

HOSPITAL SUNDAY.

A CONFERENCE meeting, composed of the representatives of the leading hospitals, was recently held in this city, to consider the necessary steps for establishing a "Hospital Sunday" for the benefit of such institutions. After a long debate, which, however, was mostly confined to prospective details of a general plan of operation, it was finally determined that a Sunday in each year shall be devoted to a church collection of funds in aid of hospitals, and that the previous Saturday be a day for general collection with the same object among the Israelites and amid the non-church-going public at large.

There does not appear to be any question concerning the ultimate success of this movement, and the great benefit which would necessarily accrue to the various charitable medical institutions. Experiments of making collections upon a certain day have been tried with great success in England, and the popularity of Hospital Sunday in all the churches there is a matter of history. There is no reason why, with proper and consistent management, the movement should not be attended with like results. The very fact that there is to be a "Hospital Sunday" so designated will give a popularity to the movement, will arouse general attention in the right direction, and will be a healthy stimulus for that well-directed charity which always commences at home.

There is no doubt also that while the poor of the hospitals will be the gainers by this movement, that there will be also an opportunity for contributions in many churches which has never been offered before, and which opportunity will be gladly taken advantage of by such congregations. The committee having the matter in charge will doubtless, at no distant time, present a general plan for the collection and distribution of the funds. In regard to the latter point, there will, of course, be a division in accordance with the percentage of charity patients treated in the different institutions. This would, of course, give no opportunity for unequal or sectarian distribution. It is unecessary to say that we wish the committee having the matter in charge abundant success.

HUMANITY IN EXECUTIONS.

THE condition of public opinion on matters of humanity seems to be a rather anomalous one. Brutality to the lower animals arouses an indignation which speedily checks it by effective laws. Our dogs and horses live tenderly, and die scientifically. On the other hand, if a man is condemned to die, he is likely to be immured in a cell till he is frenzied or imbecile, and then taken out and barbarously asphyxiated. The question of the right or expediency of capital punishment we need not discuss; but if a man's life is to be legally destroyed, the method should be as little revolting as possible, and not be left to the invention or choice of some conceited and ignorant executioner. This business of choking to death is bad enough, no matter how scientifically it may be done; but when, as in a recent case, there was preventable and stupid blundering, the hangman perpetrates a crime against humanity.

Reviews and Notices of Books.

THE PHYSICIAN'S VISITING-LIST FOR 1879. Philadelphia: Lindsay & Blakiston.

THIS standard visiting-list makes its usual annual visit. For completeness, compactness, and simplicity of arrangement, it is excelled by none in the market.

A TREATISE ON THE SCIENCE AND PRACTICE OF MIDWIFERY. By W. S. PLAYFAIR, M.D., F.R.C.P., Professor of Obstetric Medicine in King's College, London, etc. Second American, from Second and Revised English Edition. Edited, with Additions, by ROBERT P. HARRIS, M.D. 8vo. 639 pages, with 182 illustrations. H. C. Lea: Philadelphia. 1878.

To the student we can say that no better work on obstetrics than Playfair's can be found. Pelvic anatomy, ovulo-menstruation, physiology, conception, changes during and the diagnosis of pregnancy, are fully though concisely described. LABOR, its mechanism, its abnormalities, its dystocia, its management, are treated in the soundest and most reliably practical manner; all the advances in the obstetric art, up to the very day of publication, are to be found lucidly recorded in this most valuable work. The same may be said in regard to the pathology and treatment of the puerperal state, which closes the volume. To the practitioner we especially recommend this volume, on account of its wide range of subjects, practical, new, and sound teachings, and comprehensively concise style, making it a *multum in parvo*.

The fact that a second edition appears in less than two years subsequent to the first issue, is in itself a sufficient recommendation of the worth of the book.

Under the present circumstances, this volume needs no extended review from us; but we will simply

point out some of its excellent points, not omitting to designate where improvements might be made.

The anatomy of the pelvis and pelvic organs is lucidly described and well illustrated. Conception and generation, those changes which occur in the ovule and uterus after impregnation, are described in so concise and clear a manner, and so beautifully illustrated, that this rather difficult part of physiology cannot fail to be understood by the student. The same may be said of the anatomy and development of the fœtus. In regard to the non-shortening of the cervix during pregnancy, we are sorry to notice that Dr. Playfair still omits to mention Prof. Isaac E. Taylor's labors on the subject. This is inexcusable, since Dr. James C. Reeves, in reviewing the first edition (see *Amer. Jour. Med. Sci.*, Jan., 1877), called attention to this omission. Pregnancy, its organic changes, diagnosis, abnormalities, and diseases, is very satisfactorily described. Let cerium oxalate be given in gr. x. doses, and greater success will follow its use in the vomiting of pregnancy. Curiously enough no mention is made of the use of atropia or hyoscyamia in this trouble. On page 206, line 9, the word *knee* should be placed between "and" and "position." The mechanism of labor, as described by Dr. Playfair, is eminently simple and practical. Illustrations from Hodge's great work are here introduced to special advantage.

The engraver has not been fortunate with fig. 98, p. 264, since the vertex appears to be in the right occipito-iliac (transverse), instead of the right occipito-sacro-iliac position, as designed.

The author certainly gives very excellent rules for the management of labor.

In the management of the perinæum during the delivery of the head, we again notice the absence of the method, so ably advocated by Dr. I. E. Taylor, namely, the retention of the head upon the perinæum during the *absence* of pains—thereby preserving gradual and constant dilatation of the vulva—by pressure upon the fœtal forehead with three or four fingers behind the anal orifice, and in front of the coccyx. The importance of delivery of the placenta by *expression* instead of traction upon the cord, receives the fullest attention.

Dr. Uvedale West's views on non-rotation in occipito-posterior positions are here elucidated and accepted (p. 307). The editor adds a very interesting and practical article on *ante-partum* hour-glass contraction of the uterus, or, as he calls it, "tetanoid falciform constriction of the uterus."

Pelvic deformities are described most satisfactorily. Fig. 125, p. 369, shows rather too large dimensions, especially in the inferior diameter, to satisfactorily represent an "adult pelvis retaining its infantile type."

Dystocia from all causes are treated by Dr. Playfair in a most rational and fearless manner. He is not afraid of operations where necessary, excellent rules for which he lays down.

A woodcut illustrative of Barnes's theory of placenta prævia would have added to the elucidation of the subject.

Dr. Playfair's chapters on "obstetric operations" are truly excellent. Considering their wealth of illustration, their concise comprehensiveness of details, and the very valuable additions of the editor, we can honestly say that they are the best in the book, and unequalled in any other work of the kind. We are surprised that the editor did not add a figure and description of Dr. Lusk's cephalotribe, which is certainly the equal of Hicks's.

A most excellent formula (Prof. Frankland's) for the preparation of artificial mother's milk is given. The author looks upon that ill-named "puerperal fever" as simply a septicæmia developed during the puerperal condition, whether complicated by metrit s or peritonitis, or both, or neither, matters not as to its essential pathology. Every physician should read the views herein set forth, and the rules for treatment therefrom deduced.

HABITUAL DRUNKENNESS, AND INSANE DRUNKARDS. By JOHN CHARLES BUCKNILL, M.D., London, F.R.S., F.R.C.P. Eng., etc., etc. 12mo, pp. 103. London: Macmillan & Co. 1878.

WITHIN this small volume are brought together various papers and remarks of the author upon the topic which heads this notice. To those interested in the subject of drunkenness his views are well known, no doubt. Dr. Bucknill holds that habitual drunkenness is a vice, is not a disease, although it may produce the latter; being a vice it should be treated as such, by moral influences and proper surroundings, and this moral punishment should be inflicted by the State. He has no faith in the so-called reformation of drunkards; he denounces private inebriate asylums as worse than useless. "The only institution in which I did find good, honest, earnest work being done was the inebriate Reformatory at Philadelphia, in the management of which the idea of curing a disease is steadfastly put on one side." We recommend this little book to all our readers who are interested in such matters as containing much food for careful consideration, since the author's convictions spring from an honest, philosophical, and humane view of the subject.

CONSPECTUS OF ORGANIC MATERIA MEDICA AND PHARMACAL BOTANY. By L. E. SAYRE, Ph.G. Philadelphia: D. G. Brinton. 1879. Pp. 211.

THE work commences with a chart containing all the officinal drugs of organic origin. They are arranged according to their natural botanical orders, the officinal names of each substance being followed by the botanical and common name of the plant from which it is derived, together with the habitat, part used, constituents, principal medical properties, dose, and officinal preparations. This is followed by about thirty pages devoted to structural botany. The rest of the book is devoted to the consideration of the characteristics and properties of the individual drugs. The work will prove useful for reference.

TRANSACTIONS OF THE NEW HAMPSHIRE MEDICAL SOCIETY (88th Anniversary), held at Concord. Concord, N. H.: Republican Press Association. 1878.

THE papers in this volume, though few in number, are good in quality. The president's address calls for no special notice, being general in character. "The Pauper Insane of New Hampshire," by J. P. Bancroft, M.D., of Concord, is a plea for the proper treatment and care of these unfortunates under the supervision of alienists who are directly responsible to the State. The next paper, a "Report on Surgery," by William Child, M.D., of Bath, is too short to be valuable. "Some of the Risks and Responsibilities of the Profession," by E. E. Graves, M.D., of Boscawen, may be read with interest and profit. A judicious argument may be found in "Reasons for Modern Alcoholic Stimulation Examined," against the wholesale and routine use of alcohol in disease, especially fevers, etc. The opinions of a large number of leading practitioners in the United States—Isaac Hays, Alonzo Clark, Flint, Parker, Gross, Ellis, Bowditch, Post, and

others—as to a change in the type of diseases, are to be found herein recorded. D. S. Adams, M.D., of Manchester, follows with an excellent paper on "Carcinoma." Among other things, he says (p. 111): "I am frank in saying that I do not believe that any person, with our present state of knowledge, can distinguish benign from malignant tumors in all cases by microscopic examination alone. The last, though by no means least valuable, paper is from the pen of Dr. L. Duncan Bulkley, of this city, on "The Use of the Solid-Rubber Bandage in the Treatment of Eczema and Chronic Ulcers of the Leg."

Obituary notices appear of the late Professors Alpheus B. Crosby (by J. W. Barstow, M.D.), and Edmund R. Peaslee (by H. T. Hanks, M.D., of this city), and of Albert Smith, M.D., LL.D. (by Henry M. Field, M.D.), one of the lights of the profession in New Hampshire. Three other obituary notices close the volume.

CLINICAL DIAGNOSIS: A Handbook for Students and Practitioners of Medicine. Edited by JAMES FINLAYSON, M.D., Physician and Lecturer in the Glasgow Western Infirmary; Examiner in Clinical Medicine, etc., with eighty-five illustrations. Philadelphia: Henry C. Lea. 1878.

THIS manual is destined to hold its own among many superior works of its class. Besides the editor, Drs. W. T. Gairdner, Wm. Stevenson, Alex. Robertson, Samson Gemmell, and Joseph Coats, all well-known Scotch physicians, have contributed articles relating to their several specialties. The style of presenting the various methods of making a diagnosis is a model of conciseness and quite suggestive in character. Without any pretence at exhaustiveness, it still can lay claim to being a work of reference of no mean order; at all events, the reader will not be disappointed.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, December 23, 1878.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

THE AID WHICH MEDICAL DIAGNOSIS HAS RECEIVED FROM RECENT DISCOVERIES IN MICROSCOPY.

DR. CHARLES HEITZMAN delivered an interesting lecture upon the above subject.

After prefatory remarks to the effect that the physician who was not familiar with macroscopy and microscopy was very much like the Indian medicine-man who worked without anything to guide his experience, he proceeded to the demonstration of certain points which had been reached, and that enabled him to make diagnoses which, six years ago, were impossible.

He first spoke of

URINARY SEDIMENTS, ESPECIALLY TUBE-CASTS; RECENT RESEARCHES ON THEIR ORIGIN AND VARIETIES; THEIR DIAGNOSTIC AND PROGNOSTIC VALUE.

In order to understand the urinary sediment it was necessary to be familiar with the anatomy of the kidney, and the anatomy of the kidney could not be understood without familiarity with its entire histology. When that was mastered the study of the urine could be commenced.

The anatomy of the kidney was first considered, and a detailed description given of the structure of the cortical and the pyramidal substance.

There were mainly three kinds of inflammatory processes in the kidney, formerly considered under the general term Bright's disease. He thought, however, that such terms as Bright's disease and Pott's disease were general terms, and should not be used by scientific men.

The inflammatory processes in the kidney were mainly of three kinds: 1. Catarrhal; 2. A more severe form, or croupous; and 3. A still more severe variety, suppurative nephritis.

The catarrhal process consisted essentially in a serous exudation, in which there was desquamation of a certain amount of epithelium that could be seen in the urine. That primary condition could give rise to new connective tissue formed from epithelia, and at last terminate in the small granular kidney. If, therefore, we found in the urine a varying amount of albumen with epithelia of the kidney, recognized by their size, we could determine positively that an inflammatory process of a milder character was going on in the organ; in other words, that the patient was suffering from catarrhal nephritis.

In another series of cases there was present in the urine a varying amount of albumen and tube-casts.

Dr. Heitzman believed that the tube-casts consisted of protein substance, or a modified form of fibrinous or albuminous material. Hence there was no good reason for omitting the term *croupous nephritis*. He then referred to the various theories which had been given regarding the formation of tube-casts: 1. That an exudation took place in the tubules, coagulation occurred, and casts were formed; 2. That the epithelium lining the tubules was transformed into casts; and 3. That the casts were produced by the coagulation of material secreted by the epithelia themselves. The latter was the theory which he adopted.

A brief description of the various kinds of epithelium found in the uriniferous tubules was then given: 1. The epithelium of the convoluted tubules, which he thought were separated by a cement substance; 2. The flat epithelium of the loops of Henle; and 3. The cylindrical epithelium in the straight tubules.

In sections of kidney, which were the seat of croupous nephritis, cast material could be seen in the tubules; and of casts there were five varieties:

1. Hyaline casts; 2. Epithelial casts; 3. Blood casts; 4. Fatty casts; and 5. Waxy casts.

There might be a sixth variety, or granular casts.

In ordinary acute croupous nephritis there were found in the urine hyaline and epithelial casts; but if the disease was very severe there might be blood casts.

In the chronic stage of the disease there were found granular casts; and if fat globules were present it was indicative of fatty degeneration of the kidney. Lastly, if waxy casts were found in the urine it was evidence that we had to deal with a waxy degeneration of the kidney.

Dr. Heitzman believed that whenever casts appeared in the urine they indicated severe disease of the kidney, namely, croupous nephritis.

A recent German writer had advanced the opinion that mere hyperæmia of the kidney could give rise to casts, but he doubted the correctness of that opinion.

Not only did casts indicate the stage and the nature

of the disease, but they also indicated the portion of the kidney which was the seat of the disease. In the mildest cases the casts were from the loop tubules and the convoluted tubules of the second order. If the number of casts from the convoluted tubules was considerable, it was known that the cortical substance was chiefly invaded. The mere size of the casts, besides the number and the character of the cast, was indicative of the disease called croupous nephritis. We very often met with casts from the convoluted tubules with stump-like attachment, which indicated that they had also been formed in part in the straight tubules. That was a form of cast which he had not seen described, and indicated the exact situation of the inflammatory process. Based upon these principles, he had been able to make a diagnosis by examination of the urine alone, and had seen his diagnosis proved true by the subsequent history of the cases. As an illustration, the urine of a boy, six years of age, was brought to him for examination. He had suffered from a very slight attack of diphtheria. Three varieties of casts were found in the urine, and the case was set down as one of severe croupous nephritis. The boy died three days after in a convulsion.

There was possibility of recovery from croupous nephritis under the following circumstances: 1. When it occurred in connection with scarlet fever; and 2, when developed in connection with pregnancy, or, as occasionally happened, after delivery. In the first instance recovery was due mainly to the recuperative power possessed by children, and in the second class of cases it was because only one kidney, as a rule, was affected. Perfect recovery in both instances was possible.

With reference to *pus corpuscles* he was able to tell where they came from only when they were mixed with epithelia, which indicated the seat of the disease. If pus corpuscles with flat epithelia were found in the urine it was evidence that suppuration existed in the bladder. If the caudate epithelia were present with pus corpuscles it was evidence that the pelvis of the kidney was the seat of the suppurative process.

If small epithelial cells were found with the pus corpuscles it was evidence that the inflammatory action was in the kidney itself.

It was only in acute cystitis that the flat epithelial cells with pus corpuscles were found. In chronic cystitis the flat epithelia were absent, and black pigment was found in the pus corpuscles.

Again, if pus corpuscles with epithelia from the kidney were found in the urine it was evidence that more or less dangerous suppurative process existed in the kidney. If hematoidine crystals were found in the urine it was evidence of chronic morbid process, and if associated with pus corpuscles, of a chronic suppurative process.

In the second place, Dr. Heitzman spoke of the

MICROSCOPICAL EXAMINATION OF THE SPUTA, AND ITS VALUE IN THE DIAGNOSIS OF LUNG DISEASE.

The chief elements met in the sputa were mucous corpuscles and pus corpuscles. The question arose, What was the difference between a mucous corpuscle and a pus corpuscle? The answer was, that the mucous corpuscles were nothing but the protoplasm of the epithelial cells themselves, and were pale and *finely* granular bodies, while the pus corpuscles were *coarsely* granular bodies.

Dr. Heitzman believed that Cohnheim was mistaken when he stated that all pus corpuscles were migrated white blood corpuscles, for the formation of pus corpuscles could be traced to the firmer tissue itself. No one would deny that a certain number of pus corpuscles were migrated white blood corpuscles, but he did not believe that all of them were produced in that manner.

The lungs normally contained a certain amount of pigment, therefore when pus-cells found in the sputa contained pigment granules, it was an indication as to where the pus-cells came from. The presence of elastic fibres on the sputa indicated that there was positive destruction of lung-tissue. He might not be able to say what had destroyed the lung tissue, but it could be said with great certainty, if with the fibres there were found certain protoplasmic bodies, that the destruction was due to the formation of a cavity.

Reference was then made to cases in which he had been able to make a diagnosis of serious lung disease by examination of sputa before any evidence of such disease was given by physical signs.

MICROSCOPICAL EXAMINATION OF THE FÆCES

might furnish valuable aid in diagnosis. We could readily tell whether we had to deal with a shallow inflammatory process, like dysentery, or a more severe disease called ulcerative proctitis; for if shreds of connective tissue were found it indicated the existence of the severe inflammatory process.

Reference was made to one case in which diagnosis of hysteria was made, by finding that a peculiar material, which the patient passed in large quantity, was composed of vegetable remnants unlikely to be taken as an article of food.

In the fourth place Dr. Heitzman spoke of

THE COMPARISON OF THE DIFFERENT TAPPED FLUIDS WITH REGARD TO THEIR FORMED ELEMENTS AND THEIR DIAGNOSTIC VALUE.

In *ascites* the fluid contained, besides a varying quantity of albumen, a varying number of endothelial cells from the peritoneum, and invariably a greater or less number of pus corpuscles. The presence of endothelial cells was a diagnostic sign of ascites. In fluid drawn from the *cyst of the broad ligament* nothing of the kind could be seen. He thought it well to be careful with reference to regarding Drysdale's corpuscle as positive evidence of the existence of an ovarian tumor.

THE DIAGNOSIS OF TUMORS WITH THE AID OF THE MICROSCOPE

was the fifth topic in the Doctor's discourse. There was no doubt the science of microscopy had advanced so far that we were able to tell positively what kind of a tumor we had to deal with. If a few points were kept in mind we could easily determine whether we had to deal with a benign or with a malignant growth. The key to diagnosis was chiefly in the basis substance, whether fibrous, myxomatous, cartilaginous, or bony. The more of the basis substance present the more certain was the tumor benign; the less the basis substance the surer was the tumor malignant. Malignant tumors were of two kinds: 1. The kind belonging altogether to the connective tissue series, and termed sarcoma; and 2, the kind belonging to epithelial formations, and termed cancer. Further, if we saw slight basis substance without epithelial elements, and without alveolar arrangement, we could say that it was a sarcoma; while if we saw epithelia arranged in alveoli, without respect to size or shape, we made the diagnosis of cancer. In the latter case, also, a great deal could always be determined by examination of the connective tissue outside of the epithelium. The more abundant the connective tissue

about the epithelial nests the less malignant was the cancer, while the more numerous the epithelia were, and the less abundant the connective tissue, the more certain we were that the cancer was a malignant one.

Again, there were present in the connective tissue itself a varying number of peculiar shining globular elements which, by recent examiners, had been considered as the product of a kind of inflammatory reaction from irritation of the epithelium. The more crowded those corpuscles were, the worse the cancerous tumor. If we wished to know whether or not the tumor had been thoroughly extirpated, it should be examined about its boundary. If the connective tissue was found provided with only a small number of inflammatory elements so-called, we might be sure that the cancer would return within a very short period of time.

The sixth topic of Dr. Heitzman's lecture was

THE AID FURNISHED BY PUS-CORPUSCLES AND COLORLESS BLOOD-CORPUSCLES IN JUDGING OF THE GENERAL CONSTITUTION — DIAGNOSIS AND PROGNOSIS BASED UPON THE ANATOMY OF PROTOPLASM.

Under this head the lecturer refers to the discovery which he made five years ago, regarding the anatomy of protoplasm, and its presentation before the Society three and two years ago. (See MEDICAL RECORD, Vol XI., p. 322, and Vol. XII., p. 94.) He then claimed that protoplasm of any description invariably contained a net-work of threads and granules, that held in its meshes a fluid, and that the threads and the granules constituted the living matter. To-day, more than a dozen of the best microscopists abroad had accepted his discovery, although it had not been recognized in this country. That the reticulum was present, no one had a right to doubt; but that the threads and granules were living matter had as yet not been acknowledged. That it was living matter he had to prove, which he felt himself able to do by the recognition of two well-established facts.

The first property attributed to living matter was *motion;* and the second, *capacity for reproduction of its kind.*

As evidence that this matter was living, was the motion which could be seen in it, and it was enough to establish its reproductive power to know that the granules increased in size and number during the inflammatory process. Transferring the idea to the study of the human body, Dr. Heitzman reasoned that these corpuscles should contain more living matter in the healthy and strong individual than in the broken-down and scrofulous person.

Acting upon that supposition, he began, three years ago, to study pus-corpuscles in the urine in connection with clinical histories, and reached the conclusion that the constitution of the person from whom they came could be determined in that manner. Having settled the question that pus-corpuscles from a healthy person contained an abundance of living matter, an abundance of granules, while those from a debilitated person contained granules which were very small and a very marked net-work, it occurred to him that perhaps by examination of the colorless blood-corpuscles he would be able to tell directly what the constitution of the individual was from whom the blood was taken. So it was, and he had found that when the colorless blood-corpuscles, examined with moderately high power (800 to 1,000 diameters), were found to contain an abundance of granules, it was evidence of a first-class constitution; on the other hand, if only fine granules were seen, and the entire body of the corpuscle was pale, it was evidence of a poor constitution. He had very often noticed that the number of white blood-corpuscles was considerably increased after a single sleepless night, so much so, that it might be determined whether a man had been kept from his rest or not, by examination of his blood. It could also be determined whether a man was to have acute diseases, or whether he was to suffer from the slow processes of disease incident to a strumous diathesis.

These facts being determined, they might exert a very great influence upon the entire question of life assurance.

Not only that, but they might exert an important influence upon the question of marriage.

To know something of the general condition of our patient was very important. If that could be determined by an examination of a drop of his blood, we had learned much with regard to his future welfare, and a new field was opened worthy of the investigation and study of every physician.

The subject being before the Society for discussion,

DR. GILLETTE remarked, with reference to the statement made by Dr. Heitzman, that hyaline casts could not occur in the urine unless a grave inflammatory process was behind them, that he had not been led to attach so much importance to their presence in the urine. He spoke especially with reference to life assurance examinations, and formerly he thought the mere presence of hyaline casts in the urine was sufficient reason for rejecting the applicant. But he had watched several such cases for four years, and no evidence whatever had developed to suggest that the casts had any clinical significance.

He further referred to Charcot, Richardson, Dickinson, and Ziemssen, who did not attach that importance to hyaline casts in the urine that had been given to them by Dr. Heitzman.

DR. HEITZMAN remarked it was contrary to his own experience that hyaline casts existed in the urine without being due to serious inflammatory process in the kidney.

DR. H. G. PIFFARD remarked that since Dr. Heitzman announced the peculiar construction of protoplasmic cells many had witnessed its demonstration in his laboratory, and had it been referred to a committee of investigation, doubtless more would have been satisfied of the truth of the discovery.

With reference to other matters in the lecture, much that had been said could be readily accepted.

Some points, however, were new, and if true, were of the utmost importance; for example, the assertion that the character of the constitution of a person could be determined by the appearance of the white blood-corpuscles.

With Dr. Heitzman's consent, he moved that a committee of three be appointed by the President to investigate the subject and report to the Society. The motion was adopted.

After remarks by Drs. Elsberg, Weber, and Sell, Dr. J. C. Peters read a memorial on the late Dr. Snelling.

The Society then adjourned.

A DIAMOND WEDDING was recently celebrated in the little town of Kollmar, in Holstein, to commemorate the seventy-fifth anniversary of the marriage of two surviving spouses. It appears that two more celebrations of the same sort are expected to take place shortly in the same town. There have been ten diamond weddings there during the last fourteen years.

Correspondence.

THE VITAL STATISTICS OF NEW YORK.

DEATHS *vs.* BIRTHS.

To the Editor of The Medical Record.

SIR:—If the secular press be correct in its summary of the vital statistics of New York for the past year, it reveals a state of affairs worse even than that which has lately called the sympathizing attention of political economists to the alleged decadence of France. 25,729 births against 27,005 deaths leaves an ominous balance on the debit side of the municipal account, even when liberal allowance is made for neglect in recording nativities. And this excess of death-rate over birth-rate has extended through a number of years past, according to the official reports of the Health Department.

It would be difficult to ascertain the number of immigrants who become permanent residents of the city (unless, perhaps, they could be roughly estimated from the naturalization records); but it would be interesting to learn from the Board of Health whether it entertains any theory to explain the increase of population; and also whether, supposing its records to be defective and misleading, despite its legal power to enforce registration, it be worth while to publish a fragmentary list of births which only serves to invalidate all statistical calculations.

I am, sir, yours, etc.,

A PERPLEXED SANITARIAN.

OXALATE OF CERIUM IN CHRONIC COUGH.

To the Editor of The Medical Record.

SIR:—I have noticed in several of the current medical periodicals, testimonials as to the efficacy of oxalate of cerium in chronic coughs. I desire, through the medium of your valuable journal, briefly to add my own experience in its use.

My attention was first called to this drug, in the capacity already mentioned, something over a year ago, since which time I have used it in a goodly number of instances, until I have come to regard it as one of the principal remedies in the treatment of this distressing malady.

Coughs resulting from chronic bronchitis, phthisis, and chronic laryngitis, have promptly yielded to this remedy in my hands, after both the internal and external administration of other drugs had signally failed. In giving it to adults, in only one instance have I ever experienced any ill-effects from its use. This was a case very similar to the one reported in the RECORD for December 28, 1878, by Dr. La Roe, of Greenpoint, L. I. On this occasion I used seven grains at first, which produced the narcotic effect he speaks of as following the taking of five grains. I then reduced the quantity to five grains, which quieted the cough without the deleterious effects first produced. When I first began using oxalate of cerium, I produced decided narcotic effects in two instances from the administration of five grains to children of from ten to thirteen years of age.

In prescribing this drug, I invariably direct it to be taken half an hour before rising in the morning; and I may say that, although I have used it *frequently*, I have in only one or two instances been disappointed in the effects produced. I give five grains to adults, and diminish the dose, when treating children, in proper ratio, according to age.

FRANK ALLFORT, M.D.

SYCAMORE, ILLINOIS.

A NOVEL VIEW OF THE CREMATION QUESTION.

To the Editor of The Medical Record.

DEAR SIR:—I noticed in No. 422 of your valuable journal a reference to Dr. Gross's views on cremation, as given by that eminent surgeon to a representative of the *Philadelphia Press*. The subject is certainly one of great importance, and the hygienic advantages to be derived from the abolition of interment are certainly great, although perhaps liable to be overrated. But, allow me to speak of another relation which, it seems to me, does not receive due consideration by the medical profession. I am referring to the chemical aspect of this question of cremation.

Taking for granted—for my purpose—that interment is a method of disposing of the dead both disgusting to our educated feeling and dangerous to our health, there remains to be decided another question, viz., whether cremation is really the most economical way of destroying dead bodies. And here chemistry comes in and answers negatively. For cremation could never be introduced into civilized communities without arrangements being made in the various furnaces constructed to burn up all the smoke produced by the combustion of the human body. And this includes the destruction of a constituent of our own as well as of all other vegetable and animal bodies, the supply of which is limited—at least as far as we know. This constituent is *ammonia*. In this combination the various nitrogenous bodies that play such an important part in vegetable and animal life are introduced into the vital circulation, and are also eliminated from it in the same shape. It has been Liebig's greatest achievement to point out and trace through all its stages the circulation of nitrogen and its compounds. The chapters: "*Der Ursprung und die Assimilation des Stickstoffs*" and "*Die Quellen des Ammoniaks und der Salpetersäure*," in his immortal work, "*Die Chemie in ihrer Anwendung auf Agricultur und Physiologie*," are classical, and leave no doubt in the mind of the reader as to the true sources, distribution, and final condition of ammonia and its allies.

Chemistry, therefore, does rightfully claim that not only must cremation of necessity waste and destroy an immense bulk of organized material which is thus abstracted from that portion of the earth's capital that is capable of vitalization, but it also irreparably wastes and destroys ammonia and kindred nitrogenous substances, the sources of which are not as yet fully understood, and the supply of which, for aught we know, is undoubtedly limited.

Ammonia, nitric acid, and principally nitrite of ammonia, are formed from atmospheric air, in consequence of a certain amount of commotion produced in our atmosphere, either mechanically or by some electric or galvanic discharge. *This is the only source of ammonia positively known to us.* Rain and thunderstorms therefore supply to us a chemical combination of elements, the importance of which is recognized more and more every day.

And here we meet with certain public improvements (?), the establishment of which is due to just such misapplied hygiene as may at any time give us the

improvement (?) of cremation. For, by our great system of sewers, that cost millions upon millions of dollars, we are diligently and carefully throwing away, by leading them into the great rivers and the sea, just those valuable nitrogen constituents which we are importing with great cost, under the fashionable form of "guano."

The first one to raise this valid objection to cremation with combustion of smoke was Friedrich Mohr,* the eminent chemist, the greatest living since Liebig died. His warning should be heeded before it is too late; and, although we shall not live to see the ammonia-famine, it will surely come, if the present or the next generation does not reform.

Instead of supplanting interment by cremation, the most rational way would be to cover up all the dead bodies of men and animals alike with quick-lime, and thus preserve their ammonia-compounds for further circulation by using them as fertilizers.

Whether this way of disposing of our dead would meet with the sentimental approbation of humanity in general is, of course, rather doubtful. Very probably only necessity, *i. e.*, the instinct of self-preservation, will at some future time, quite remote from the present, force men to the realization of such extreme measures.

This is the conviction of your correspondent,

GEO. W. RACHEL, M.D.

53 E. 3D ST., N. Y.

TINCTURES FROM FLUID EXTRACTS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Is there not a chance for serious accident in dispensing, indiscriminately, tinctures made from fluid extracts and from crude herbs? For instance, a druggist has been furnishing a physician on prescription a tincture of digitalis from the fluid extract, the dose of which, according to the formula given by the manufacturer of the fluid extract, is forty-five to ninety drops, and the druggist should fill the prescription with a tincture made from the herb according to the U. S. D., the dose of which is ten to twenty drops. This would give the tincture from the herb in forty-five to ninety drop doses.

Cannot some step be taken to regulate fluid extracts so as the tinctures made from them will correspond in dose to those made from the crude herbs.

H. PALESTINE, Texas.

[Fluid extracts are all supposed to be of the same strength, one minim corresponding to one grain of the crude material. They of course differ in actual strength depending on the *quality* of the herb employed by different manufacturers. Perhaps the maker of the one referred to was aware that his own production was of inferior quality and knew that it must be given in larger doses to produce the desired effect; besides, the larger the dose, the sooner the bottle will be finished and another one required. We do not know that there is any objection to making tinctures from fluid extracts, but the practice of some apothecaries of dispensing so-called "infusions" made from fluid extracts is wrong, and should be stopped. There is a very decided difference in the *quality* of effect between the watery and alcoholic preparations of digitalis and some other drugs. This pernicious practice is encouraged by the labels which some fluid-extract makers put on their bottles.—ED.]

* In the scientific monthly, "Gaea," XI., p. 526.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 5 to January 11, 1879.

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Now on leave of absence, to report in person to the Com'd'g General, Dept. of the South, for assignment to duty. S. O. 7, A. G. O., January 9, 1879.

ROSSON, R. L., 1st Lieut. and Asst. Surgeon. Assigned to duty at Camp Apache, A. T. S. O. 149, Dept. of Arizona, December 23, 1878.

GRAY, C. C., Major and Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to his home, Chester, N. Y., and there await further orders. S. O. 7, A. G. O., January 9, 1879.

BOOKS AND PAMPHLETS RECEIVED.

AN ATLAS OF HUMAN ANATOMY, Etc., with Explanatory Text. By RICKMAN JOHN GODLEE, M.S., F.R.C.S., Fellow of University College. Philadelphia: Lindsay & Blakiston. 1878.

TRANSACTIONS AMERICAN OTOLOGICAL SOCIETY, Eleventh Annual Meeting. Boston: Houghton, Osgood & Co. 1878.

ELEMENTS OF COMPARATIVE ANATOMY. By CARL GEGENBAUR, Professor of Anatomy and Director of Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B.A., and E. Ray Lankester, M.A., F.R.S. London: Macmillan & Co. 1878.

MEDICAL CHEMISTRY, including the Outlines of Organic and Physiological Chemistry, etc. By C. GILBERT WHEELER, Prof. Chemistry Univ. Chicago. Philadelphia: Lindsay & Blakiston. 1878.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 11, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 4, 1879..	0	11	224	2	2	73	0	0
Jan. 11, 1879.	0	8	274	1	2	65	0	0

MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK.—Dr. A. L. Ranney has been elected Adjunct Professor of Anatomy for this institution.

NEW YORK PATHOLOGICAL SOCIETY.—The following officers have been elected for the ensuing year: President, Dr. E. L. Keyes; Vice-president, Dr. Joseph W. Howe; Secretary, Dr. Geo. F. Shrady; Treasurer, Dr. John H. Hinton, and Editor of Transactions, Dr. John C. Peters.

THE PHILADELPHIA SOCIETY FOR ORGANIZING CHARITABLE RELIEF AND SUPPRESSING MENDICANCY intend to extend the sphere of their usefulness so as

to supervise the dispensary patients. No dispensary physician will be allowed to treat a patient a second time, unless he brings with him a certificate from the ward superintendent of the Society to the effect that he is deserving of medical assistance.

A New Chair in the Medical School of the University of Pennsylvania.—The trustees have just created a chair of "The Anatomy and Surgery of the Joints" in the Medical Department of the University of Pennsylvania. Among a number of candidates, Dr. Charles B. Naucrede, one of the physicians to the Episcopal Hospital, seems to be the one most likely to receive the appointment.

Urging the Metric System.—The report made by representative Meish, from the Committee on Coinage, Weights and Measures, presents a condensed history of the metric system, and assumes that the first essential thing for the civilized world is to establish at this time a fixed and determined unit of international linear measurement. The committee earnestly recommends the early passage of the House bill introduced at the last session of this Congress to establish the metric system in the post-offices and custom-houses of the United States. The metric system has already been adopted, voluntarily, by the Bureau of Statistics, the Medical Purveyor's Office and Coast Survey, and in some of the bureaus of the Treasury Department computations are made according to this system.

Public Health.—A special session of the Advisory and Executive Committees of the American Public Health Association was held on January 3d and 4th, at Washington. They advised that Congress create a National Provisional Commission, whose duties should be to investigate the late yellow-fever epidemic, and devise a plan for a national public health organization. The Committees enlarged upon the necessity of great care in the selection of this Provisional Commission, and recommend that the National Academy of Sciences be empowered to appoint its members, which they limit to seven or nine. The Committees also passed a resolution protesting against the passage of the Lamar bill now before Congress, and entitled "A Bill to establish a Department of Public Health." This was thought to give an unwarrantable concentration of power.

Cook County Hospital passed into the hands of a new warden on the 1st of January. The air and the papers are full of the story of the mismanagement under the old regime. Doubtless there is some exaggeration in these reports, but the hospital under the former warden was bad enough. The management, it is claimed with some reason, was very weak, if not very corrupt and rotten. Nurses and other employees seemed to be responsible to no head, and to obey no authority. The expense to the public has been beyond all reason, and the institution has for a long time been outrageously inefficient. It is safe to say a thoroughly efficient warden might easily improve the sanitary condition of the hospital fifty per cent. over its average condition during the past year. The new warden, like a new broom, appears to be making a clean sweep. A marked change for the better is already noticeable; but the new incumbent has a very difficult task before him.

Medical Societies of Chicago.—A new medical society organized in a very quiet way, a few weeks ago, and called the Gynecological Society, has already given evidence of vigor and promise of usefulness. The new society is the third scientific medical society now in active operation in the city, the "Chicago Medical Society" being the oldest, and the "West Chicago Medical Society" being next in age. The "Chicago Society of Physicians and Surgeons," once a flourishing organization, has not been heard from for several months. It will probably not be revived.

Aiken *vs.* State Board of Health. The Appellate Court of Illinois has just confirmed the decision of the lower court in the matter of Dr. Aiken *vs.* The State Board of Health. This is one step farther in the legal journey toward the establishment of the right of the State Board to revoke a physician's license to practise on account of unprofessional conduct.

Why the Metric System Must be Adopted.—[In the course of a lecture delivered before the New York Academy of Sciences, to demonstrate that the metric system must be taught more through the senses than to the mind, Dr. E. Seguin shows some of the advantages physicians would derive from the use of this quantitative language in practice, and in recording observations.]

"Foremost in human interest is *the uniformity of weights* in prescriptions, which would prevent the grave or fatal results attending the composition abroad of medicines prescribed here. And *the uniformity of measures* which would give the possibility of writing observations uniform—that is to say comparable at sight—with those of other nations.

"Then comes the possibility of mathematically accounting for the vital functions intrusted to the physician, in health at first, during their waste in disease, and in the course of their recuperation under treatment; and to make these individual records serve as mathematical elements of true medical statistics.

"These records, and the following ones, could be rendered much more valuable by being made on *metric paper* (a paper water lined, one way with the millimeter, centimeter, and decimeter-line; and the other way with centimetric and decimetric water-lines only). I will name, among the applications of this paper to the precision of our art, the tracing of the curves of the diurnal and pathological variations of the temperature, pulse, and respiration; the figures furnished by the hæmatometers, spyrometer, dynamometer, various urinoscopes, etc.; the graphics of the myograph, of the sphygmograph, and of other self-graphing instruments; the drawings or photographs of the microscopic specimens, and other perishable or evanescent data, which lose part of their interest if their proportions have not been taken on an invariable scale.

"I can not omit the use of the metric paper-bands, on which, in important cases, must be telegraphed, from the bedside to the doctor's desk, the sudden break in the course of the vital functions, which foretells a crisis avertable only by telegraphic swiftness. Now that instruments of medical precision are invented as fast as the want of nicety in diagnosis demands them, nothing is more necessary than a mean of concentrating their data on the uniform, and all but uniformly accepted plans of the metric system, of the metric scales, and of the metric paper. The great founders of the first societies of 'medical observation,' longed in vain for such means of record of their admirable observations as are now within the grasp of the whole profession.

"Let us, therefore, follow Europe in the use of the metric system; but let us show European physicians the use of the 'metric plan' in medical observation, beating them on their own ground, literally with a piece of paper.

"Our mind has come to that, but not our routine and automatism. Most of our medical schools and hospital clinics teach by the old weights and measures; few physicians prescribe in the metric language, and the druggists who know better (not all, of course), smile and *put up* according to direction. The best surgeons import their instruments for no other superiority over our home manufactures than their metric scale. The Massachusetts, Pennsylvania, and New York State Medical Societies recommend the use of the metric system; the U. S. Medical Marine Service makes it official and obligatory; and the Secretary of the Navy sarcastically remarks, in his last report to Congress, that *this change has caused no evil results.* Could we not benignantly promise the same *results* to private initiative?"

Resuscitating the Apparently Drowned.—Prof. Burt G. Wilder, M.D., of Ithaca, N. Y., writes: "May I ask the profession, through your columns, for information as to *resuscitating the apparently drowned?* I desire to have the history of any clear case, including the following points: The name of patient and his residence; the date, cause of submersion, time of submersion, interval between rescue and treatment, condition as to pulse, heart, and respiration; methods employed, duration of treatment and result, with name of physician or operator. For the history of such cases, or for references to published accounts of them, I shall be very much obliged."

Treatment of Diphtheria.—Dr. M. J. Gahan, of Grand Island, Nebraska, writes: "For the past four years we have had in this city, during the fall and winter months, exhibitions of diphtheria to more or less extent, and prevailing during last winter as an epidemic, and reading in your valuable journal during the last year various letters and advices on its treatment, I take the liberty of offering mine. When the case is taken, on the first formation of the membrane I found the following supporting treatment and local applications effective, viz.: Tinct. ferri chlo., ʒ i.; pot. chlo., ʒ ij.; aqua, ℥ vij.; this to be used as a gargle four or five times a day, and the use of the tinct. ferri chlo. from ten to twenty drop doses every two hours. I have used this for the last four years in over two hundred cases, and it has yet to fail me for the first time when the disease was taken at its onset."

The Mortality List of 1878 in Philadelphia.—During the last twelve months 15,743 persons have died in that city. The number was 16,003 in 1877; 18,892 in 1876, and 17,805 in 1875. Of those who have died this year, 7,959 were males and 7,784 females; 3,905 boys and 3,480 girls, and 8,358 adults and 7,385 minors. The number of colored persons who have died is 957, and the number of deaths in the Almshouse, 495. These figures are from the books of the Registrar of Births, Deaths, and Marriages.

Tape-Worm in a Child Three Years Old.—Dr. Charles H. Bailey, of Bloomfield, N. J., writes: "Some time since I noticed a case of tape-worm in a child of three years, reported in the Record. The rarity of the disease at that age made the case interesting. As few such cases are reported, I venture to send you the history of the following case; if thought worthy of a place in the Record, it is at your disposal.

Case.—Clara S., aged three years. Patient has been a healthy child, her only sickness having been malarial fever during the past summer. In the month of October her mother remarked paroxysm of crying at night, and brought her to me for treatment for worms. I gave her a dose of calomel and rhubarb, but with no success as regards her fancied trouble.

December 4th the father informed me that the child had passed pieces of a tape-worm. On visiting the family I was shown several pieces of a tænia solium. The child seemed perfectly well, plump and well nourished, and the only other symptom of disease was the continuance of the night-crying. The child was directed to be sent supperless to bed, and a liberal dose of castor oil given on retiring. In the morning breakfast was to be withheld, and the following given:

℞. Ol. felix mas.....4 grammes.
Syr. Tolutanum,
Mucil. G. acaciæ.....āā 30 "

M. Take half this mixture at one dose. In the evening of the following day the mother presented herself at my office with a quantity of tape-worm in a bottle. On careful measurement this measured *seventeen feet,* one unbroken section measuring thirteen feet. The head could not be found; the point of separation was at least well toward the head. No history of using raw or underdone meat could be obtained."

The Training of Nurses.—The diet kitchen, and the lectures on nursing were first established in connection with the Philadelphia Woman's Hospital in the year 1872. The course of training extends over two years. The age for the pupils trained is from 21 to 45. The nurses of the Woman's Hospital are required to wear cotton gowns, no stuffed dresses being allowed when they are in service, to avoid the possibility of carrying about with them the seeds of contagious diseases. The first duty which is enforced upon them is strict obedience to the orders of the attending physician. In addition to this negative requirement, are the positive duties of registering the pulse, taking the temperature of the patient's body, etc. The most exact statement in writing is to be made of the patient's condition whenever required. In the diet kitchen the pupils are taught to prepare food for the sick.

The first general hospital in the city to open its wards to the pupils of the training school was the Philadelphia Hospital, in 1876. The nurses served there gratuitously for two years in exchange for the valuable opportunities offered in the range of cases.

This portion of the time of training is now passed in the Pennsylvania Hospital, where the pupils spend a year for practice in general surgery and medical dressing. The wards of the Orthopædic Hospital and Nervous Infirmary are also open to them. After this thorough hospital drill the pupils reserve the latter part of their term for private practice, and nurses may be obtained by any one upon application at the hospital.

The nurses sent out by the Woman's Hospital School for private practice carry with them a printed form of paper, upon which both the physician in charge and the patient or friends are requested to register whatever remarks or criticisms (confidential) may occur, and all these are taken into account in determining the grade of said nurses and their qualifications, as shown in practice. Prominent physicians in Philadelphia have shown their great interest in this school by delivering lectures in the Volunteer Course each spring, to the respective classes; and the graduated nurses find, on receiving their diplomas, their work ready for them at once under these physicians, or others who have the opportunity to observe their fitness as pupil nurses in the school.

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEORGE M. BEARD, M.D.,
NEW YORK.

I.

Diseases of the male genital organs have both a medical and a surgical side. The surgical side, relating to inflammations, injuries, specific affections, and operative procedures of all kinds, is the exclusive province of treatises on surgery. The medical side, relating mainly to the nervous diseases and symptoms directly or indirectly connected with the reproductive function and organs, has thus far not been systematically studied by neurologists, while by surgical authorities it has been honored with only a partial and more or less unsatisfactory attention. The surgical writers have been the pioneers in observing the dependence of certain nervous maladies on genital disorders, and in recording their observations. On the whole, this fact is, perhaps, not entirely creditable to neurologists. The relation of the male genital function to the nervous system is intimate and complex, and is worthy of the best efforts of students of the nervous system.

Any one who is familiar with the literature of this branch of scientific inquiry, from the earlier periods down to the very latest and best surgical monographs in Germany, England, and this country, will allow that there has been a gradual tendency to refer, more and more, many of the morbid conditions of these parts to the nervous system; while, especially in German works on nervous diseases, there has been at the same time a tendency to study more and more closely the relation of this function as a causative factor in certain maladies of the brain and spinal cord.

There are, however, very many questions that are still open; many more that are regarded as matters of opinion only, and concerning which opinions are as numerous as those who write or lecture upon them; and not a few that science has passed utterly by. Some of these questions are of the very highest scientific and practical interest, and occupy the thoughts and attention of students and practitioners of medicine everywhere, and information in regard to them is earnestly welcomed, all the more because the inquirer is able to obtain so little assistance from medical literature or from the ordinary routine of medical instruction.

I purpose, in a short series of clinical papers, to attempt to answer some of these, so far as is possible to do so from my own personal observation and investigation in the study and treatment of cases of nervous diseases directly or indirectly connected with the genital function, presenting the cases, that may serve as suggestions for remarks, only in sufficient detail to make clear the special points involved.

In science the suggestion of a query that it is impossible to answer, or even an erroneous solution of a new problem, may sometimes be of service.

All purely surgical questions aside, there are quite a long series of diseases, symptoms, and hygienic problems involved in the relation of the genital function to the nervous system, in the study and solution of which every practitioner has a direct interest. Among these the following may be specified:

True spermatorrhœa, its nature and effects.

Involuntary emissions, when pathological.

Impotence, its varieties and treatment.

The relative harmfulness of natural and unnatural methods of producing the emission.

Sexual excess as a cause of nervous diseases.

Reflex nervous symptoms from morbid conditions of the glans and urethra.

The effect of nervous and other diseases on the genital function.

Case I.—A man in middle life, from a distant place in the country, consulted me for involuntary emissions of many years' duration, and associated with neurasthenia and mental depression. The patient would not tell me his name nor give me his address, but stated that he had been engaged in the occupation of teaching, but had alternated it with more or less labor on a farm, and distinctly declared that the nervous troubles coming from his sexual debility had, so to speak, dislocated his whole life, and compelled him to abandon, in whole or part, what he had desired to do. The patient presented such a picture of physical debility as is often described in the advertisements of charlatans, but which are generally supposed to have been made up for the purpose of terrifying young men. His eyes were red, swollen, and watery; the face was haggard and melancholy, and there was the characteristic and almost diagnostic timidity. Memory, and the power of mental concentration, had been seriously impaired. The patient stated that the semen came away with the urine. On this point I was doubtful, but an examination made by Dr. Mittendorf fully established the claim.

The habit of masturbation, which had been faithfully followed in early youth, had been discontinued, according to the patient's statement; but the effects, true spermatorrhœa and neurasthenia, remained.

In regard to the results of the treatment advised, no information has been received.

This case confirms, so far as a single case can, the familiar but questioned claim that spermatozoa may flow away with the urine. In short, it was a case of true spermatorrhœa—a running away of the seminal fluid independent of any natural or unnatural excitement or of any irritation. Such cases are not very common. Again and again have I had the urine of patients afflicted with involuntary emissions examined for the purpose of testing this very point, and thus far only two cases of real spermatorrhœa have been found. All physicians know that, by the law of coincidences, a number of peculiar cases of disease may come together or in quick succession, and it is not impossible that a number of these cases might follow one another, and be at one time under the care of some physician; but, nevertheless, they are, comparatively speaking, infrequent.

Whether there is anything more than a relaxed, or, perhaps, passively congested state of the urethra at the mouths of the ejaculatory ducts, may be well doubted. In other words, the full history of such cases indicates a nervous more than an inflammatory condition. It is for this reason that the caustic treatment of Lallemand has been mostly abandoned. This case also demonstrates that the evil effects of the early habit of masturbation may, in some cases, be felt in maturity, and blast the whole life.

This is not a frequent result of this habit. It is but rarely that a case so striking as this is seen; but the possibility that such permanent results may follow the unnatural excesses of youth is of interest, scientifically and practically, and should be understood by the profession.

The effects of masturbation on the nervous system, severe as they are, do not, as a rule, remain through early and late manhood. They are functional more than organic, and disappear soon after the breaking up of the habit, or, at least, after marriage.

There is a disposition among patients to attribute all their nervous woes to their early indulgences, even when there is no clear proof of any connection between them. It is probable that the vast majority of those who commit excesses of this kind recover entirely, or almost so, provided they begin, within a reasonable time, to lead a natural life, either with or without marriage. The statistics of insane asylums in regard to this, as in regard to most of the accredited causes of insanity, are of little worth, since secondary causes are so often confounded with primary causes, and masturbation, which may be one of the *effects* of insanity, has often been noted as the exclusive cause. Violent masturbation is one of the symptoms of insanity, and when a patient is brought to an asylum with this habit firmly fixed upon him, it is a natural, but not always a just conclusion, that the insanity is a *result* of the habit.

The capacity of the human system for bearing and for recovering from the temporary evil effects of sexual excesses in youth is one of the most interesting facts in this part of physiology. Very few nervous patients, whether suffering from organic or functional disorder, but on close cross-examination confess to early excesses; but to assume, therefrom, as many German writers have done, that such excesses have always caused the nervous disease, is most unjust.

Case II.—During the past year I was consulted by a gentleman of education, scientific attainments, and excellent good sense, for true spermatorrhœa of many years' standing, brought on, as such cases usually are, by masturbation commenced in very early youth. The patient was thirty-six years of age, and had not practised the habit with any regularity for eleven years. With nearly every stool semen was discharged, as microscopic examination proved. The patient, unlike most of these cases, was not at all hypochondriacal, but considered his symptoms in a truly philosophic spirit. He was, however, like the majority of such cases, a sufferer from neurasthenia—a disease of the nervous system which I have elsewhere defined and described in detail. The special symptoms of neurasthenia, of which he complained, were insomnia, nervous dyspepsia, asthenopia, mental and physical debility. The intimate and direct dependence of the weakness of the eyes on excitation of the genital function was in this case illustrated most remarkably. He was sufficiently intimate with a young lady to sometimes embrace and dally with her; and a number of times these dalliances led to an orgasm with ejaculation of semen. For a few hours after these ejaculations there would be a feeling of great and most satisfactory relief; but the next day there would always be a peculiar lassitude of the head and body, with nervous trepidation in the hypogastric region, annoying wakefulness at night, and exacerbation of the irritability of the eyes; in the patient's own language, "every hour of sexual excitement has reverberated on my eyes."

The question in which this patient was specially interested was whether he could get married; whether an engagement that he had formed must be broken off; and he was desirous to learn whether there was any difference in the effect on the nervous system between ordinary, normal coitus and the ejaculation produced by simple dalliance. An able and eminent physician whom he had consulted had positively assured him that marriage would cure him. My advice was to get married, but to first tone up his nervous system by various sedative and strengthening treatment, continued for a number of months, and when he got married to be very moderate in sexual indulgence.

The patient followed half of my advice, but not the other half; he married at once or very soon, and without taking any tonic treatment. It should be noted that one reason why he did not take the course of treatment indicated, was that he was abnormally susceptible to tonics, and indeed to medicines of all kinds; this was, in fact, one of the symptoms of his neurasthenia.

A few weeks after marriage the patient came to my office and reported that normal sexual intercourse was even more injurious to him than the orgasms of dalliances, and that even one coitus a week he could not bear, and he politely intimated that I had given him unwise advice. In reply, I reproved him for following only part of the advice given, and suggested that he at once begin taking the sedative and tonic treatment. The internal use of ergotin, belladonna, and bromide of camphor, the systematic use of the cooling catheter and cooling rectal sound to act on the irritable prostate, were advised, while living platonically, or almost so, until he became stronger.

This case is instructive and suggestive in many directions. First of all it raises the query, concerning which there has been much assumption without careful analysis or clear demonstration why and to what extent unnatural methods of producing the sexual orgasm differ from the normal coitus.

The ejaculation produced by normal sexual intercourse is the resultant of these six factors:

1. Friction.
2. Pressure.
3. Warmth.
4. Moisture.
5. Suction in slight degree.
6 Mental influence.

The first peculiarity of the various unnatural methods is, that they throw the burden of the excitation on some one or two, or, at least, a part only of these six factors, compelling the mind, or friction, or pressure alone, or together, to bring on the orgasm.

In the unnatural methods the mental influence is relatively too strong; there is too much of the subjective. It is well established that long and frequent dwelling upon sexual matters without any external, objective irritation whatever, is very harmful to the nervous system.

In the case here narrated the ejaculation was produced mainly by mental influence, though combined with pressure and possibly friction, and the process was undoubtedly much more prolonged than a normal coitus.

Secondly.—Another fact with regard to the unnatural methods is that they are more prolonged, thus making severer drafts on the nerve-force.

Thirdly.—The unnatural methods are carried out more frequently than the natural one; they can be done at almost any time, and do not, like the natural coitus, require the presence and consent of another party.

Fourthly.—The unnatural methods are often begun very early in life before coitus would be even attempted.

In several of my cases the habit of masturbation was taught in childhood by nurses or servant girls; and in all or nearly all the cases of sexual or general debility, induced by masturbation, that have been un-

der my care, the habit *was formed either before puberty or just at puberty—certainly much earlier than sexual intercourse is expected.*

It may properly be doubted whether the habit of masturbation, commenced at the age of twenty and practised only about as frequently as one would indulge in coitus, would lead to very disastrous results, at least to such melancholy symptoms as are represented in the above cases.

When we consider the universality of the habit of masturbation, the wonder is not that there is so much but so little of injury resulting from it. There is a prevalent belief that this vice is on the increase, and that it is peculiar to civilization. The probability is, rather, that it is relatively diminishing. There is evidence that it is practised far more in barbarous and semi-civilized people than among the highly civilized. We notice its effects more in modern times and in a high civilization, because our nervous, sensitive, impressible organizations cannot so well bear abuse of any kind. A degree of self-abuse that on the American constitution, as it was fifty years ago, would have had no effect sufficiently perceptible to attract attention, now induces an immense array of symptoms of neurasthenia that drive the sufferer in despair to the physician's office, or more frequently to the writings of charlatans. Some of these cases, no doubt, bring on or intensify their troubles by reading and worrying about them; but that cannot be said of all; it cannot be said of the case noted above.

The nervous disease, inebriety, illustrates the same principle. During the past half century the vice of excessive drinking has greatly declined among the better classes of this country; but, at the same time, the disease, inebriety, has been perceptibly on the increase, for the reason that the nervous temperament of the modern American will not bear free indulgence in alcohol.

This case also shows that it is possible for one to be in apparent health, able to engage in active duties, and yet be so nervously susceptible that even occasional sexual intercourse is injurious. If this man indulged but once a week he suffered from wakefulness and other symptoms of functional nerve disorder. This observation is instructive as indicating a possible cause of failure of our remedies in some instances.

That this peculiar susceptibility is not confined to cases of spermatorrhœa is proved by the following case:

Case III.—A physician of middle life complained, among other symptoms of nervous exhaustion, of a special type of agoraphobia; he could not go any distance from his office without suffering, and the farther he was from his office the greater his distress. There was headache, and also there were various head symptoms; but the appetite was excellent and the muscular strength was equal to the average of men of his age and size. When requested to visit a patient he might be found at work in his garden, and yet unable to respond to the call for the one reason that he could not go any considerable distance from his home.

Under various treatment, including general faradization, counter-irritation at the nape of the neck, and internal medication, he so far improved that he could attend to his profession, although the relief is not perfect and he still takes treatment.

The point in the case of chief interest just here is, that after long and careful observation he concluded that even occasional sexual intercourse was harmful to him; and what is of especial interest, is the fact that the injurious effect was not felt until the *second day after* indulgence.

The question whether agoraphobia and allied nervous affections are not pretty directly under the influence of the genital system is suggested by cases like the above. One fact, according to my own observation, is quite clear; namely, that all maladies of this class appear almost exclusively during the period of greatest sexual activity—between the ages of twenty and fifty—very rarely before fifteen or after fifty-five or sixty. Childhood and old age have diseases enough, and diseases of debility and exhaustion; but they do not have the special and peculiar forms or manifestations of exhaustion known as agoraphobia, spinal irritation, cerebral irritation, and hysteria. Sick headache—a type of this family of disease—does not usually appear before puberty, although I have known exceptions to this rule, and generally disappears between forty-five and sixty, as all students of this malady well know. It is quite possible that simple activity, or a condition of *readiness for activity* of the genital organs, without abuse in any form, may, by reflex action, excite various nervous symptoms and disorders which disappear as the genital activity declines. Cases of hysterical trance, like those of Mollie Fancher, usually (I will not say always) begin and end during the period of sexual activity.

Case. IV.—A man somewhat under middle life, who had been very active in his profession, was prostrated with a powerful array of nervous symptoms, in which the sexual organs shared. There was increase of desire without increase of capacity. During the night there would be persistent erections, which were followed by pain in the region of the testicle and bladder.

Although this patient had usually a good appetite, and was able at times to go out and attend to business; and when unable to leave the house or even the bed he could, and did, carry on important affairs by dictation; yet during all this period he could not indulge in coitus without suffering terrible prostration and palpitations. For that reason he habitually abstained.

In this case there was no evidence that sexual excess had anything to do with the nervous symptoms; but when in that exhausted state, sexual excitement seemed to be injurious. This was not a temporary, but a long-standing condition. I have just been consulted by a fourth case—the details of which will be subsequently given—where normal sexual intercourse even but once a week is followed by insomnia and nervousness.

In an interesting paper read before the Academy of Medicine, February, 1874, Dr. Otis reports a number of cases where urethral contractions, congenital or acquired, were the starting-points of a variety of morbid nervous phenomena, such as discomfort in the perineum, involuntary emissions, frequent micturition, pains in the back, testicles, groins, and thighs, and a feeling of wetness at the glans penis, and so forth.

Some of these observations I have been able to confirm. I have known a very slight and temporary irritation of the anterior portion of the urethra to cause frequent sensations along the inner part of the thighs, as though of dropping water—indeed, quite the same feeling that would be experienced if drops of cold water fell from a moderate height on the skin; and it would appear that these abnormal feelings may be excited not only by the few drops of urine retained behind the stricture, as Dr. Otis suggests, but by a mere irritation, without any retention or interference with the flow of urine.

In this line is the painful, though usually temporary but sometimes most distressing, pain in the perineum

that follows sexual intercourse or the act of defecation. A medical gentleman who once consulted me in regard to this symptom, said that it was at times quite hard to endure. It seems, as a rule, to arise only when there has been excess, or when the act is forced by unnatural methods; but this rule is not without exceptions; in a sensitive organization it may appear after ordinary indulgence or an easy defecation.

Diseases of the urethra may be effects as well as causes of disease in remote parts of the body. Thus, Dr. Lewis Fisher, of this city, has communicated to me the facts in regard to a case of obstinate urethral discharge which resisted all treatment, until at last he succeeded by a mechanical appliance contrived for the relief of the ligaments at the bottom of the feet; the ligaments had been strained in long marching.

The phenomena of reflex action in the causation and cure of disease, much as they have been studied, are yet far from receiving the attention that they merit, not only as scientific curiosities, but as practical aids in the diagnosis and treatment of nervous diseases. Pain of a persistent character in the back of the neck and head I have known to disappear on the cure of piles; dyspepsia, as all know, often affects every part of the body, except the stomach; headache in women, I have known to disappear instantly on faradization of the uterus; overuse of the eyes causes headache and neuralgia.

Case V.—At the present time I have under observation a young man who is the victim of insomnia, flushings of the face, with periods of depression. The only symptom of which he complained on consulting me at first, was insomnia; but on detailed examination it was soon found that involuntary emissions were annoying him, and that the long habit of masturbation was not fully overcome. On examining the parts it was found that the foreskin was so attached to the glans that only a very small orifice was left for the escape of the urine. It was and is a question whether the insomnia and other nerve-symptoms are produced by the masturbation and the involuntary emissions, or reflexly by the elongated foreskin. In order to settle this question, it was decided to first try only medical treatment; and he was placed under the external applications of faradic electricity, and, internally, conium and digitalis were prescribed, and also the zinc combination, which, in nervous disease, I am accustomed to make much use of, particularly where sedation is required—bromide of zinc, valarianate of zinc, oxide of zinc, equal parts, sometimes adding small doses of the phosphide of zinc, or belladonna, or physostigma, or ergot, increasing the quantity from time to time. Under this treatment, combined with attention to diet, he is already improving; but if the result is not perfect, an operation may well be advised; for the meatus is so small that urination is a tedious process, and the passage of a large sound is impossible. A constant life-long irritation of this kind might surely excite all the evils from which he suffers, as Dr. Sayre's cases demonstrate. In cases like this, reducing the quantity of food taken, and dispensing for a short period with animal food entirely, are valuable suggestions. In England great cures of incontinence of urine in children have been reported by the simple expedient of confining the patients to purely vegetable, fruit, and farinaceous diet, all meat being for the time entirely interdicted. I have now under care a patient who has been relieved of a very large number of distressing symptoms by reducing the quantity of his food about one-half, the quality remaining the same; the case is a chronic one, and he is yet far from health; but if like improvement had followed directly and demonstrably from any medication or any method of treatment, the result would have been regarded as brilliant.

Case VI.—Some years since, a man in middle life consulted me for a certain grade of impotence, which, as he had just married a second wife, was a cause of much alarm. He was, in all other respects, in absolute health; but the decline in sexual vigor was decided. Under a course of treatment, mainly electrical, he fully recovered, and I believe the results were permanent. There was no atrophy of the parts, as we sometimes see in cases of this kind; there was simply functional debility, the effect of previous overuse, combined with undue anxiety lest he might not be equal to the duties of his second marriage. The feature of chief interest in his case was the absence of all other morbid symptoms, either local or general—the coincidence of perfect health with weakness of the genital function. This is not an exceptional case; I have seen many such; but their significance is not thoroughly understood. A physician of very large experience, and of exceptional powers of observation, once remarked to me that he had always supposed that impotence was an effect or accompaniment of general debility. The truth in this matter would appear to be, that sexual excess or abuse in *strong* constitutions is likely to result in local genital debility; the same excess in weak constitutions is likely to result in *general* debility, or, at least, disorder in other and remote organs. The weak cannot abuse themselves long enough to bring on local trouble; they are warned by general nervous symptoms that compel them to desist; while the strong, having no such warnings, keep on in their excess until the genital function itself gives way; and when finally they come under treatment they are harder to cure than those of more sensitive organizations. When a sensitive, impressible, finely organized youth abuses himself sexually, the first effect and sign of that abuse is not in a weakness of the genital function, nor even in any disorder whatever of the genital apparatus, but in nervous symptoms in other parts of the body, as the head, heart, or eyes, or, very frequently, the stomach and spine. Thus, he becomes generally demoralized, while the special function, the abuse of which is the source of all his troubles, is unaffected, and, indeed, is so active as to be annoying.

This same generalization applies to all the functions of the body. Thus, the cramp of writers, musicians, and telegraphers occurs almost always, with an exception here and there, in persons of considerable, if not unusual strength; the very weakly and sensitive cannot write, or play, or telegraph long enough to bring on the local disorder, but give way first in other parts than those specially concerned in the acts of writing, playing, or sending messages. This is a partial explanation of the fact, that all these disorders are relatively more frequent in males than in females; and also of the fact, that out of more than one hundred cases that I have studied, in more or less detail, nearly all are persons of good, if not exceptional health, the cramp being their chief, and in many instances their only affection, and the very first evidence that anything was wrong with the system. Some of the cases of musician's cramp—piano-players, organists, and violinists—that I have lately seen, are magnificent specimens of physical development, with absolutely perfect health, and muscles almost as hard as iron; one can but envy them, and feel sometimes quite willing to endure their local debility for the sake of their general vigor. Of the few incurable cases of

impotence that I have seen, all were in persons of otherwise excellent or extraordinary health.

Impotence is a symptom of many gradations; that between the mildest and severest varieties, shade into each other, and are not always or usually precisely defined. Among the different forms that it assumes (aspermation excluded) are the following:

1. Slight decrease both of desire and power.

2. Slight decrease of power with increase of desire. This is analogous to dyspepsia with morbid appetite. This second form is sometimes attended with premature or too early emission.

3. Temporary and abnormal increase both of desire and power. This third form is one of the early symptoms of certain diseases of the spinal cord, sometimes of the brain also. It generally indicates the congestive stage of spinal disease.

4. Great diminution or utter loss both of desire and power. This latter form is the worst, least amenable to treatment, and it is the form that is often found in the strongest and hardiest constitutions.

NASO-PHARYNGEAL CATARRH—VARIETIES, TREATMENT.*

By WM. F. DUNCAN, M.D.,

ASSISTANT TO THE BELLEVUE THROAT CLINIC, MEMBER OF THE N. Y. LARYNGOLOGICAL SOCIETY, ETC., ETC.

At this season of the year, catarrh being very prevalent, it has occurred to me that a few words to the profession about its treatment would not be amiss. It has been a matter of regret to all thoughtful medical men that the treatment of this common disease should be left almost entirely to quacks and irregular practitioners. Looking upon it from this stand-point, I desire to give my experience, in treating over a thousand cases of catarrh, to the profession, and to proclaim my conviction that it is in a very large majority of cases a curable disease. This belief arises from a very careful observation of these cases, continued until a cure was established. There is little that is new or mysterious in the treatment, which consists for the most part in the proper and thorough application of old and trusted remedies. The necessity for greater care in the examination and diagnosis is earnestly urged, and a failure to cure the patient may frequently be attributed to improper diagnosis of the form of the disease. The success of the treatment, in my hands, is due to the attention given to cleansing the mucous membrane before making any applications of medicine. It is the essential consideration in treating the mucous membrane of any part of the body, and, in the nasal cavities, which are small and easily blocked up with the excessive secretion of catarrh, its importance cannot be over-estimated. Inasmuch as the different varieties of catarrh require a distinct and separate line of treatment I have thought it advisable, even at the risk of presenting to my readers a good deal of matter with which they are already familiar, to describe in a brief form the clinical history of the disease and the diagnostic points of each form.

A description of a chronic catarrh of any mucous membrane will answer for that of nasal catarrh, which is a chronic inflammation marked by an afflux of blood to the parts, producing swelling, hypertrophy, or atrophy, and an alteration in the quantity or quality of the secreted mucus. It may follow immediately an acute attack, or, what is seen more frequently, will set in after repeated attacks of acute catarrh, the result of constantly catching cold. Continued exposure to irritating gases, or an atmosphere charged with dust, will produce it. Hence the followers of certain trades are often its victims, as stone-cutters, flower-makers, the employees in tobacco-factories, and so on. The use of tobacco undoubtedly occasionally produces post-nasal catarrh. Measles, scarlet-fever, diphtheria, and small-pox, leave the patients with chronic coryza, syphilis, scrofula, tuberculosis, malaria, and, in fact, any depressing disease places the system in a condition to get up a catarrh. Valvular disease of the heart and emphysema, from their interference with the circulation, may produce it. Also foreign bodies, such as cherry-pits, buttons, and even teeth, which have been introduced into the nostrils of children, unknown to the parents, and left there. Again, there are many persons, outside of any diathesis, who, seeming to enjoy perfect health in all other respects, have catarrh in the worst form. More catarrh probably occurs inland than on the sea-coast. Chronic catarrh may be divided, from location, into nasal and post-nasal. There may be a nasal catarrh limited to the nares proper, stopping at the posterior ends of the turbinate bones and septum; a post-nasal catarrh, confined to the vault of the pharynx; and finally, a catarrh of the whole tract, including the posterior wall of the lower pharynx, called naso-pharyngeal catarrh. Pathologically speaking, there are three varieties, with possibly a fourth: the simple, the hypertrophic, and the atrophic. The fourth division, simple ozæna, will be treated as a complication.

Simple Catarrh.—In a simple catarrh there is an inflammation of the mucous membrane, manifested by an alteration in the quantity of the secretion, which is more or less profuse, according to the severity of the disease. It is changed in quality, becoming thicker and yellow if the grade of inflammation be high. The afflux of blood to the parts deepens the color of the mucous membrane to a fiery red, and increases the nutrition of the glands so that they manufacture and pour out an abundance of mucus. The discharge is filled with mucus, muco-pus, mucous and pus corpuscles, half-formed cells, and broken, detached epithelium. The rhinoscope shows little swelling, but simply an intense redness, and the whole surface covered over with patches of stringy, whitish secretion. There is little or no pain, but an uneasy sensation and a tendency to frequently blow the nose and hawk to get rid of the excessive discharge. The most prominent and annoying symptom is the constant running from the nose. This disease may terminate spontaneously or be cured after the lapse of some weeks. If, however, it be allowed to continue for months it may run into the second or hypertrophic form, which is really another and advanced stage of the disease.

Hypertrophic Catarrh.—In this form the inflammatory action has produced such a hyper-nutrition that the cells form new hypertrophic tissue, which lies in great ridges in the vault, on the posterior ends of the turbinate bones and septum, almost blocking up the nares on the Eustachian tubes, and in the fossæ of Rosenmüller. The pharyngeal tonsil, a collection of follicular glands in the vault, similar in appearance and analogous in function to the tonsils of the fauces, is very much swollen. It is frequently the starting-point of a catarrh from which the disease works both forwards and backwards. Single enlarged follicles are seen in the vault, and in some cases on the rear of the septum. The whole appearance is that of an hypertrophied, boggy, inflamed

* Read before the N. W. Medical and Surgical Society.

mucous membrane. The same polypoid thickening of the anterior ends of the inferior and middle turbinate bones exists, as of the posterior, and upon looking into the anterior nares they appear like fleshy tumors. Strings and rolls of mucus are spread over the surface and bridge, the recesses and fissures. The symptoms are sufficiently aggravating. The secretion is enormously increased, yellowish-green in color and very sticky. Sometimes it is a reddish-brown, like the rust-colored sputa from pneumonia, the result of the coloring matter of the blood transuding through dilated blood-vessels. This is usually seen, when present, in the expectoration in the morning, of the matter collected behind the palate during the night. If the trouble be confined to the vault there is a sensation of a foreign body behind the palate, a stuffy sensation, and an almost uncontrollable desire to draw it down and hawk it up. Even after removing a roll of mucus the swelling of the parts preserves the disagreeable sensation, and the hawking is frequently repeated. This action causes hyperæmia and elongation of the uvula. There is ringing in the ears from invasion of the Eustachian tubes by the catarrh, or temporary deafness from plugs of mucus completely stopping their orifices. In some cases catarrh of the middle ear, with its serious consequences, results. The dropping of mucus into the throat during sleep occasions a coughing spell in the morning to remove it. Again it is swallowed, and impairs the digestion and appetite, and interferes with the general health. When the catarrh extends forward into the nares the swelling of the mucous membrane nearly closes them, interfering with nasal respiration, and causing the patient to breathe through the open mouth. This produces a peculiar expressionless countenance, which, taken with the alteration of the voice due to the absence of nasal sounds, is quite characteristic. It also causes snoring during sleep. The inflammation may extend into the nasal ducts, producing a watery discharge from the eyes into the frontal sinus, making a frontal headache, frequently a great annoyance, and into the antrum, and set up a severe neuralgia. Inspection of the post-pharyngeal wall shows a catarrhal pharyngitis, which has a follower in a hyperæmia of the laryngeal mucous membrane, producing a huskiness, and a desire to scrape the throat. It is quite distressing to public speakers and singers, whose voices improve with the cure of their catarrh. Dyspepsia frequently results from extension of the catarrh down the œsophagus. Also previously existing dyspepsia will aggravate the catarrh. The sense of smell may be greatly impaired, particularly when the catarrh is an old one, and involves the superior and middle turbinate bones, and the upper part of the septum, in whose mucous membrane reside the terminal olfactory nerves and cells. This form of catarrh may persist for months, and gradually glide into the atrophic or dry variety or stage.

Atrophic Catarrh.—This condition of atrophy may also develop from a simple catarrh. It is very common in people of middle and advanced age, and is rarely seen in young children. Probably the interstitial pressure on the afferent vessels, from the hypertrophic tissue in the sub-epithelial structure, long-continued, robs the parts of their necessary nutrition and atrophy sets in. The glands soon suffer, losing a part of their secreting cells, which results in a diminution of the secretion. The entrances to the glands becoming contracted, some are totally destroyed, while others preserve a few secreting cells which may be stimulated to activity by restoring their nutriment. The absorption of tissue frequently goes on to such an extent as to cause an actual increase in the size of the cavities.

Examination reveals the mucous membrane stretched tightly and smoothly over the bones and cartilages. It is perfectly dry, glazed, and shining. It is highly colored, owing to being so thin that the blood-vessels show through it very plainly. Sometimes the veins are engorged and varicose, and easily burst, making frequent slight hemorrhages, from which the blood dries in hard black crusts. The septum and turbinate bones may become as thin as the blade of a knife. Slight erosions now and then occur on the septum and anterior end of the inferior turbinate bones, from which the patient will pick hard crusts, which re-form every few days. Crusts and rolls of dried mucus are found in the nares, the result of the secretion of some part high up in the meatuses not yet atrophied. The nares being enlarged, quantities of dust are inhaled and spread out over the surface. Nearly always the posterior pharyngeal wall is in the same condition of atrophy as the parts above. It is called pharyngitis sicca. A combination of atrophy and hypertrophy may exist. There may be atrophy of the nares and hypertrophy of the vault, diminished secretion from one, and increased secretion from the other, or the reverse.

The different conditions require different treatment.

The subjective symptoms of dry catarrh are frontal headache, dryness of the nose and pharynx, decrease of the olfactory sense, absence of secretion, and the formation of hard dry crusts.

Ozæna.—One of the problems heretofore difficult of solution by the profession has been to determine what is ozæna; the popular impression being that it was a catarrh produced by syphilis, and that in some way syphilis was always answerable for it. With this idea in mind, specific remedies were invariably given, and with very varying results; some cases yielding to mercury and iodine, while others would grow worse under the same treatment. The former were undoubtedly syphilitic, while frequently the latter never had any venereal disease, and in them a great deal of mischief was caused and no relief granted. The matter is somewhat cleared up by dividing ozæna into simple ozæna and syphilitic ozæna, and hunting up the cause for the offensive odor which is characteristic of each. When syphilitic, it is the result of decomposed secretion from ulcerations, caries, and necrosis, either of which is always present. There are crusts and plugs and rolls of dead tissue filling up the nostrils, making a world of stink. The color of this offensive mass is dark gray. There is a vicious, sanious, and very copious discharge. The bones ulcerate, die, and are discharged piecemeal, causing fearful disfigurement, discomfort, and pain. This is the typical *ozæna* of the older writers. Simple ozæna, however, is very different. It occurs in patients who are otherwise perfectly healthy, is unaccompanied by any ulceration, and yet has just as offensive an odor as the syphilitic variety. The cause of this is probably such as was first suggested by my friend Dr. Bosworth. The disease resides in the accessory cavities of the nose—the frontal, sphenoidal, and maxillary sinuses, either of which has a capacity of at least two drachms—and these, opening by small outlets into the nares, retain the secretion poured out by their inflamed mucous membrane until it becomes decomposed, and enough has been produced to cause an overflow and a discharge of their contents. This offensive product oozes out and coats the nares with a thin, close-fitting, shining, yellowish-green pellicle, which can be seen upon examination. Its appearance

is quite characteristic, and can scarcely be mistaken. When it is carefully washed away so that none is visible on inspection, the odor disappears for several hours —a day or two—until more is discharged from the sinuses. It is difficult to detach it, as it clings very closely to the surface underneath, which, after its removal, appears very much reddened, but is clean, intact, and free from ulceration. In both varieties the patients are deprived of their sense of smell, and oftentimes, until informed by their friends, are unaware of the disgusting odor they emit.

Owing to lack of space, further reference to the complications of catarrh will be omitted.

Treatment.—The successful treatment of catarrh is largely confined to local applications, although the necessity for treating internally every disorder of the system is earnestly urged. Always in treating a diseased surface cleanliness is recognized as the chief requisite. This necessity, I repeat, is especially emphasized in dealing with a diseased mucous membrane, which must be thoroughly cleansed before the application of medicine is made. The mucus is often very tenacious, and secreted in cavities difficult of access, and yet it is possible to remove most of it by the methods described. The fact that alkaline solutions have a solvent effect on mucus is utilized, and all of the cleansing solutions contain some form of alkali; and, as in many cases there is a decomposition of the retained secretion, an antiseptic or disinfectant is used. Any combination of these two medicines, in weak solution, will answer, but that which seems to be as efficient as any, and in use at the clinic, is Dobell's solution.

℞. Acidi carbol	ʒ iss.
Sodii biboratis,	
Sodii bicarb., āā	ʒ ij.
Glycerinæ	f. ʒ ij.
Aquæ ad	f. ℥ij.
M.	

It is used with the atomizer, the post-pharyngeal syringe, and the nasal douche. The nasal douche of Thudichum has received too much praise and too much condemnation. It has a position in the armamenture worthy of a moment's consideration. When a catarrh is simple, there is nothing but an excess of secretion, and it is limited to the anterior nares, the use of the nasal douche is serviceable. It is valueless in any other case, however, because the solution washes only a limited surface. It enters one nostril, and, flowing upward around the rear of the septum, passes out of the other, cleansing only the inferior meatuses, and does not reach the whole of the vault. Again, it does not run with sufficient force to be of much value when there is a copious sticky secretion. There is some danger to be apprehended from the solution entering the Eustachian tubes, beyond the valvular portion, if used carelessly. This liability is reduced to a mere nothing if the patient be directed to hold the nose downwards, and while the current is passing through the nostrils to breathe through the open mouth. Also the vessel or reservoir must not be placed more than two feet above the level of the head. Common salt ʒ i.—aq. Oi. may be of service. I have abandoned the douche because of its limited service, except when used with a curved nozzle, like the pipe of the post-pharyngeal syringe, which is passed behind the soft palate, and the solution runs out of both nostrils. I recommend this to be used by the patient at his home. The best method of using the cleansing solution is with the post-pharyngeal syringe, which is both safe and efficient. The solution can be driven with a great deal of force without danger of its entering the middle ear, because the direction of the stream and the Eustachian tubes is the same, downwards and forwards. It is to be entered flat on the tongue, which is depressed by its nozzle, its point introduced quickly behind the palate, and the contents suddenly and forcibly ejected by driving home the piston, and the syringe withdrawn. When there are crusts and plugs of mucus it may be necessary to repeat its use a dozen or more times at a sitting before they are washed away. Always examine to see that the surface is clean. When skilfully used it gives no pain, and is tolerated by any patient. Sometimes the sticky pellicle in ozæna will be loosened and drawn down from the upper meatuses until it reaches the anterior nares, where it will remain. It can be dislodged by throwing a stream with the same syringe, first into the nares in front, and then from behind the palate. The solution can also be used in a spray driven by compressed air, either by a hand-ball atomizer, or a pump and receiver. The last is very efficient when used with about thirty (30) pounds pressure, and will dislodge mucus from the superior meatuses, and even the entrance of the sinuses. It is better for children than the post-pharyngeal syringe. If with all these methods you fail to clear the nostrils, as you may do in syphilis, loosen the crusts with a probe and remove them with long slender forceps.

The next step in the treatment is the application of the medicines, adapted to the case, which is made in the form of spray, powder, or solution. The spray spreads out in every direction, and reaches cavities otherwise almost inaccessible, and is therefore the choice method. In simple catarrh the object in view is to reduce the amount of inflammation by the use of astringents. Select astringents of different strengths and kinds to suit each case. For a standard astringent, sulphate of zinc, gr. xv. aq. ʒ j. is a good one. If the case be a mild one, do not use it stronger than three grains. If the catarrh be of long standing see the patient three times a week, and in the intervals let him use the cleansing solution home, with Delano's atomizer, or the post-pharyngeal douche. Ferric-alum, gr. v.—xx. to aq. ʒ j., is valuable when there is excess of secretion and little sensibility. Chlorate of potash, nitrate of silver, tannin and chloride of zinc may be used. Ring the changes on the astringents until a good one is found, and stick to it. When pain, lasting longer than half an hour, follows the use of the astringent, use a spray of U. S. solution of morphine. When there is hypertrophy to deal with, stronger applications are needed. Caustics can be applied with a probe, one end of which is tightly wrapped with cotton. With such a probe, one end of which is bent at right angles, the short arm of which is about an inch long, applications can be made behind the palate to the vault. The hypertrophied tissue must be destroyed, crushing it with forceps, cutting it with a knife, and galvano-cautery are allowable. The polypoid thickening of the ends of the turbinate bones can be touched with caustics, applied by means of a probe passed through a shield. Curette the vault when there is adenoid degeneration. In both the above forms of catarrh excess of secretion is the prominent feature requiring treatment.

In the atrophic form the secretion is absent, and the glands need to be stimulated to action, and astringents avoided. A spray from a weak solution of iodine, gtt. v.—x. to aq. ʒ i., or tr. sanguinaria ʒ i. to aq. ʒ i., may be used. Sang., myrrh, and lycopodium in powder, blown into the nostrils, are a valuable stimulant. Continued applications to a

perfectly dry membrane bring a reward after a time, when the stumps of the glands begin to take on action and pour out the secretion.

The simple ozæna is treated by carefully removing the pellicle every day or two, and then using an astringent spray, after which iodoform blown into the nostrils in powder is effective. The nasal passages must constantly be kept open so as to allow all the offensive matter to flow freely out of the accessory cavities. The iodoform is not annoying to the patient, and, if care be taken not to get any of it on the clothing, will not be very disagreeable to others. When syphilitic ozœna exists the local treatment is the same. In addition, the usual internal remedies are employed. If any dead bone can be detached take it away at once. Finally, take up each complication singly and overcome it, remove all foreign bodies and tumors, fight every disease and diathesis with the proper remdies, and the same measure of success will be met with in treating catarrh as is encountered in treating other chronic disorders.

266 W. 42d Street.

REINTERMENT OF THE REMAINS OF JOHN HUNTER, IN 1859.

A BRIEF SKETCH OF HIS LIFE AND WORKS.

(Abstract of a Paper read before the New York Academy of Medicine, January 2, 1879.)

By ELLSWORTH ELIOT, M.D.,

[New York.

While spending a few days in London, in the spring of 1859, I saw in the advertising columns of a newspaper a notice that the remains of John Hunter, recently discovered in a vault beneath the Church of St. Martin-in-the-Fields, would be reinterred in Westminster Abbey.

[Here Dr. Eliot gave an interesting account with reference to obtaining a ticket of admission to the ceremony. He was the only American physician present.]

The grave-diggers in the old church showed me the coffin, covered with cloth, time-worn, but in good condition. It had been placed, at the time of his death, in Vault No. 3, which had been subsequently filled with coffins from the bottom to the top, and was found underneath many and toward the back part of the vault. The inscription upon the brass-plate was easily read: "*John Hunter, Esq. Died Oct. 16th*, 1793, *aged* 64 *years.*" . . . . . In an English paper it was stated that it had been discovered after a search of two days. This did not seem incredible after viewing the extent of the vaults and the number of coffins placed therein. . . . . .

Before the appointed hour, I was at the door, and was admitted "to the Jerusalem Chamber, through Dean's Yard." The chamber was venerable for its great age and historical associations. There King Henry IV. had died nearly four and a half centuries previously. "Even there my life must end," are his words, as we find them in Shakespeare. It was soon filled with the distinguished surgeons and physicians of London. Among others, Mr. John F. South, the editor of *Chelius' Surgery*, through whose kind direction I had received my ticket. An official of the Abbey soon announced that it was the hour for service, the order for daily evening-prayer, the musical portion being modified as suited the occasion. Apart from this, no word in praise or memory of the distinguished dead was spoken. No words could have been added to the impressive solemnity of that hour. The stately and solemn chant to the Psalm; the *Magnificat* and *Nunc Dimittis*; the voices of singers and the accompanying organ, as the music softened and swelled and echoed beneath the Cathedral's magnificent arches; Handel's anthem, "When the ear heard him, then it blessed him; when the eye saw him, it gave witness to him; he delivered the poor that crieth, the fatherless, and him that hath none to help him;" and the sublime chorus, "His body is buried in peace, but his name liveth for evermore;" and, lastly, the "Dead March in Sampson," as the coffin, borne on men's shoulders, was carried to the grave—these combined to make an indelible impression upon the mind and heart, which cannot be described.

> "When life is old,
> And many a scene forgot, the heart will hold
> Its memory of this."

It is a singular circumstance that Mr. Hunter's widow was unable to defray the expense of a burial of the remains of her husband in the Abbey at the time of his death, and for this reason they were placed beneath the church of the parish in which they resided.

The incidents which I have attempted to describe naturally lead to the inquiry, Who was John Hunter, and what did he do to deserve and receive such unusual honors? Sixty-six years after his death, a period of time during which very few escape oblivion, the exact place of his burial was with difficulty discovered, and his remains, found among an accumulation of some two thousand bodies, after a prolonged, difficult, and enthusiastic search, were piously placed at rest with poets and philosophers, "kings and counsellors of the earth." Why should the Dean and Chapter of Westminster, when application was made for a place for Hunter among the honored dead, whose graves they guard, have replied, that "they would be proud to be guardians of the ashes of so great a man?"

Briefly told, the leading facts of his life may be stated as follows: He was born at Long Calderwood, Parish of East Kilbride, Lanarkshire, Scotland, Feb. 13, 1728. The youngest of ten children, as a boy he gave no promise of celebrity. When twenty years old, he was able to read and write his native language; but this was the limit of his scholarship. The fame of his brother William, who is spoken of as "perhaps the best teacher of anatomy that ever lived," proved an incentive to his ambition. In the dissecting-room his progress was wonderful. He studied surgery under Cheseldon at Chelsea Hospital during the summer months of 1749 and 1750. He became House Surgeon of St. George's Hospital in 1756. Ten years' work in the dissecting-room impaired his health, which he sought to regain by acting as surgeon in the army. In 1763, without other pecuniary support than the half-pay to which his army service entitled him, he began practice in London as a surgeon. During the first years of professional life his business allowed him to devote much time to investigations in comparative anatomy and physiology, where he sought for the facts and the principles which are at the foundation of life and health and disease. Nor were these pursuits discontinued while life remained. In 1767 he was elected a Fellow of the Royal Society.

In 1768 he received the appointment of Surgeon at St. George's Hospital, whereby his practice was greatly increased, and pupils, at 500 guineas each, sought his instruction. In 1776 he was appointed Surgeon Extraordinary to the King.

In Dec., 1785, his famous operation for curing aneu-

rism by the application of a ligature between the tumor and the heart was successful.

In 1786 he was appointed Deputy Surgeon-General to the army. The following year he received the Copley medal from the Royal Society.

Thus from step to step he had reached the foremost place in the medical profession; yet we are told that "most of his contemporaries looked upon him as little better than an enthusiast and an innovator."

He died Oct. 16, 1793, of angina pectoris, the symptoms of which are said to have begun twenty years previously. Under date May 11, 1777, he writes to his former pupil, the celebrated Dr. Edward Jenner: "I was taken very ill with a swimming in my head, and could not raise it off the pillow for ten days; it is still not perfectly recovered." This was sixteen years before his death, which came under circumstances of peculiar sadness. While interceding with the trustees of St. George's Hospital for two Scotch students, who were desirous of receiving the educational advantages of that institution, to which there was some objection on account of their imperfect preparation, he was met with rudeness and insult. Without saying a word, he repaired to an adjoining room; a fall was heard, and he was lifeless. Soon his dead body, followed by the empty carriage, was borne to his late home. At the post-mortem examination, it was found "the coronary arteries had their branches which ramify through the heart converted into long tubes, with difficulty divisible by the knife. The mitral valves were *much ossified*. The aorta was somewhat dilated, its valves thickened, and wanting pliancy, and the inner surface of the artery was studded with opaque and elevated white spots."

His greatest gifts to mankind were in connection with surgery. Before his time, surgeons opened the tumor of a popliteal aneurism, and tied the artery above and below it; but many would amputate rather than resort to this discouraging operation, for it seldom succeeded. The principle of applying a ligature between the heart and the tumor, whereby its supply of blood was stopped, its circulation being established through anastomosing vessels, was thus first established by Hunter, and made general by him and his successors.

"Union by the first intention" is a boon which we scarcely appreciate, accustomed as we are to the simple method which Mr. Hunter taught in the treatment of wounds. It would astonish us to see a surgeon stuff a wound with charpie or other foreign substance after amputation, and wait for healing through the tedious process of suppuration and granulation. Yet this was done for many years after Mr. Hunter's death. It was long before the profession learned, what Hunter taught, that two cut surfaces, when brought and held in contact, would speedily unite.

His treatise on the venereal disease was for a long time the standard authority upon this subject. He developed the true principles connected with this disease, and made the treatment scientific, thus putting an end to the empiricism which had previously resulted in disastrous consequences.

An imperishable monument of his career remains in the museum which he founded—the pride of the Royal College of Surgeons. Ten thousand five hundred and sixty-three specimens were a proof of his unceasing diligence when called from his labors. I have mentioned that he did not leave sufficient property to provide for such a burial as his widow desired. The reason may be found in the fact that he had expended £70,000 on this museum alone.

The full and exact value of his labors will never be known, on account of the destruction of twenty or thirty large folio volumes, written in a fair and regular form, in which he had recorded his observations on comparative anatomy and physiology. They were burned, it is said, by his nephew, Sir Everard Home, who had stolen from them what he afterward published as his own.

I am aware that the subject as presented in this paper contains a very inadequate conception of the achievements of Mr. Hunter. Could an accurate statement of our art as it was in 1763, when he began to practise in London, be made, and his improvements and discoveries be fairly exhibited, it would then be clear how great is the debt which humanity and science owe to his labors—unsurpassed, if not unequalled. The more these are studied and understood, the greater will be the eagerness of physicians visiting the Abbey to find the place where I saw his body laid in the grave; and they will there read, deeply cut in brass, which is inlaid in a slab of polished granite, the inscription: "Beneath are deposited the remains of John Hunter, born at Long Calderwood, Lanarkshire, N.B., on the 13th of February, 1728. Died in London on the 16th of October, 1793. His remains were removed from the Church of St. Martin-in-the-Fields to this Abbey on the 28th of March, 1859. The Royal College of Surgeons of England have placed this tablet over the grave of Hunter to record their admiration of his genius as a gifted interpreter of the Divine power and wisdom at work in the laws of organic life, and their grateful veneration for his services to mankind as the founder of scientific surgery."

Mortality among Physicians in the East.—At the last meeting of the Relief Committee of "Stafford House," London, some interesting details were furnished concerning the risks run by the physicians who went to Turkey to care for the wounded and sick. This committee has sent 35 physicians to the East; 13 of them were attacked by dangerous maladies, and 2 died. The Red Crescent Society employed 45 physicians, of whom 14 were taken sick, and 7 died. The Red Cross Society employed 14, of whom 3 were taken sick, and 2 died; and the Turkish Charitable Fund sent out 11, of whom 3 have been dangerously ill. Of 40 Sisters of Charity, 30 took the fever, and 13 succumbed to it. Hence, out of a total of 105 physicians, all young and hearty, 33 were attacked with fever, and 10 died of it.

At the International Congress for the relief of the wounded, the Russian delegate made known the losses sustained by the Medical Corps. There were not less than 150 deaths, 14 of them on the field of battle.

Medical Society of the State of West Virginia.—This Society has recently published the transactions at its last meeting in Weston, May 22, 1878. Some valuable papers were presented at that time.

In the opening address the President, Dr. M'Sherry, introduced the subject of public hygiene, and Dr. M. S. Hall made a report, urging the importance of the same matter. Papers were read upon the State Insane Asylum and the Medical Botany of Hardy County. There were many very interesting medical and surgical cases reported, the whole making this publication of the Society an extremely useful one.

Before adjourning, the Society elected Dr. W. H. Sharp, President, and Dr. N. F. Hullihen, of Wheeling, Secretary for the coming year.

THE CURVED FLAP IN PLASTIC OPERATIONS ON THE FACE.

By GEORGE F. SHRADY, M.D.,

SURGEON TO THE PRESBYTERIAN AND ST. FRANCIS' HOSPITALS, NEW YORK.

The following case of plastic operation upon the face is presented for the purpose of illustrating what appears to be an improved method of filling a gap in the cheek. Considering the conditions to be fulfilled, it seems to me that no other procedure could have been adopted with a better result. In saying this much for the operation, I can, perhaps, in no more direct way express my appreciation of the good offices of my colleague, Prof. A. C. Post, who suggested to me the form of the flap which was used.

It is always a matter of concern to the surgeon how he can best fill up a vacancy in the face with the least possible deformity. In some instances the patient, far from being benefited, has reason to share the mortification of the operator, and sympathize in the number of scars with the probable condition of the man of "brier-bush" fame. Taking into account the size,

Fig. 1.

Fig. 2.

the situation of the tumor removed, and the other conditions which are presented in the following history, it is probably not saying too much to state that the patient was fortunate in escaping with a minimum degree of deformity.

In April, 1877, Alexander M. presented himself at the Presbyterian Hospital, with a small tumor imbedded in the substance of the right cheek. An operation for the removal of this growth, by an incision through the mucous membrane, was performed by Dr. Detmold. Shortly after the operation, however, there was a return of fulness in the cheek, which was accompanied with a feeling of circumscribed hardness, and which finally declared itself as a return of the disease. In the beginning of November the patient again presented himself, the tumor being of the size of a horse-chestnut, occupying its former site, projecting an inch and a half above the facial surface, attached to the anterior edge and external aspect of the masseter muscle, to the maxillary process of the malar bone, and involving the overlying skin, the buccinator muscle, and buccal mucous membrane. It had a hard, almost cartilaginous consistency, especially over its anterior aspect, where the skin was furrowed and more deeply involved than at any other portion. The entire extent of Steno's duct seemed to be incorporated with the diseased mass.

The operation for the removal of the growth was performed on Monday, Nov. 25th, with the assistance of Drs. Post, Briddon, and Hinton.

An incision was made through the integument along the lower margin of the malar bone forward and slightly downward towards the angle of the mouth. At right angles with this incision, and at either extremity of it, two parallel ones were carried downward and backward, corresponding with the direction of the naso-labial furrow. Lastly, an incision parallel with the first was made, forming a quadrangular space, including the superficial area of the growth.

The incisions were then deepened through the entire thickness of the cheek, and along with the tumor portions of the buccinator muscle and of the mucous membrane were removed, as was also some of the external surface of the masseter muscle. There did not appear to be any direct connection of the tumor with the bone. A good portion of Steno's duct being involved in the growth, was removed with it. The anterior edge of the parotid gland showed itself along the line of the posterior incision.

The hemorrhage attending the operation was considerable, but not more than would be expected under the circumstances. A sponge was inserted into the mouth to prevent blood passing into the trachea.

In order to fill the vacant space in the cheek—which was two and a quarter inches in one direction and one and a half inches in the other—a flap was taken from the side of the face and neck. The vertical incisions of the parallelogram were continued directly downward for a distance corresponding with the depth of the vacant space above, and then curved rather abruptly backward until they terminated on the posterior aspect of the neck and behind the ear. This flap thus marked out, and shown in Fig. 1, was separated from the subjacent parts throughout its entire length. Some care was exercised in carrying on the dissection, as it was necessary to follow the external surface of the platysma myoides, and thus avoid wounding the external jugular vein. The flap was then brought up with the greatest ease, and when stitched into place there was not the slightest tension at any

point. As precautionary measures, however, two pin-sutures were inserted in the upper border of the flap and one along the line of the lower curve under the chin. Drainage by horse-hair was established at the most dependent portion of the wound. The pins were removed the second day, as were also the horse-hair drain and the alternate sutures. The wound healed by first intention throughout its entire extent, except in the situation of the drainage openings, which, however, closed within the first week.

The tumor was examined by Dr. Satterthwaite, and was pronounced by him to be an adeno-carcinoma.

On the tenth day after the operation, a small abscess formed between the front of the ear and posterior edge of the flap, and was opened. This continued to discharge for two days.

At the end of two weeks after the operation, the patient left the hospital cured. The openings on the outside had healed, the entire under surface of the flap had solidly united to corresponding portions of the neck and jaw, and the cavity of the buccal surface was filled partly with mucous membrane, and partly with soft, smooth, and pliant cicatricial tissue.

As might have been expected, there was considerable stiffness of the masseter muscle, but this, by the use of wedges between the teeth, has been gradually disappearing, the patient being able to open and close his mouth nearly to the normal extent. Within a week after leaving the hospital he presented himself with an abscess of the cheek, which I opened in the centre of the line of the upper margin of the flap. The discharge was of a character resembling salivary fluid, slightly mixed with pus. I found that the opening which I had left for Steno's duct on the inner side of the cheek was closed. Introducing a probe from the outside to that point, I made a free passage into the mouth. The external opening closed within four days, all signs of inflammation disappeared, and up to the present time the saliva has been discharged freely into the buccal cavity.

The use of the flap with a curved neck, as in this instance, possesses some advantages, in certain cases, over either of the methods ordinarily used by surgeons. These methods are chiefly those which are known as the Italian or Sicilian, which consists in transplanting from remote parts; the Indian, in which the flap is taken from adjacent parts, but the neck of the flap turned on its axis; and the French method, in which the chasm is filled by drawing a flap from the adjacent parts in a direct line.

It is well known that all flaps have a tendency to contract, and that when there is any tension upon the sutures connecting them with the adjacent parts, that union is apt to fail. It is always desirable to give as much margin as possible, in order to guard against such contingencies. The flaps transplanted by the French method show these tendencies to the greatest degree, inasmuch as the line of tension is direct. This necessitates a proportionate increase of length in the dissected skin. The same remark applies in a minor degree to the flap transplanted by the Indian method.

In the flap with a curved neck, however, there is, in proportion to its extent, less tension originally, and less chance for retraction subsequently. The tension, instead of being in straight lines, distributes itself along curves and in the direction of the radii of those curves. Subsequent retraction merely increases the arcs of these curves in a direction to do the least harm. This condition is seen in the alteration of the direction of the latter in Fig. 2, as compared with those made at the time of the operation.

The different directions in which the flap can be stretched, and the facility with which it adapts itself to its new position, is quite surprising, and can hardly be anticipated. In several rehearsals of the operation upon the cadaver I was somewhat disheartened at the degree of redundancy of skin above the lesser curve, and the extent of the vacant space below the line of the lower curve, after the end of the flap was adjusted. Although due allowance was made for the absence of elasticity of skin in the dead subject, I was prepared for the necessity of leaving a small space below the angle of the lower jaw for granulation. I was agreeably disappointed, however, after stitching from the base and extremities of the flap towards the centre, in being able to close up the wound entirely. The stretch was not only along the line of the curves, but in the direction of their radii, and to such an extent in the latter that the redundancy of the tissue under the ear complemented the relative deficiency at the point of greatest convexity of the flap under the jaw.

It is, perhaps, unnecessary to say that the figures represent the appearance of the patient before the operation and at the present time. These are taken from photographs by Mr. O. G. Mason, of Bellevue Hospital. In Fig. 1, are shown the position of the tumor, the quadrangular incision required for its removal, and the shape and extent of the flap. Fig. 2 is intended to represent the patient with the head turned to the right and the chin elevated, thus altering somewhat the relations of the curves of the flap as compared with those in Fig. 1. The scars which remain can be hidden completely by the whisker.

38 East Thirty-second Street, N. Y.

Reports of Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF CHARLES T. HUNTER, M.D.

DEMONSTRATOR OF SURGERY IN THE MEDICAL SCHOOL

(Reported for THE MEDICAL RECORD.

FOREIGN BODY IN THE URETHRA.

On the 17th of July, 1878, T. D., æt. 63, was admitted into the University Hospital, for the purpose of having a fragment of a glass tube extracted from his urethra. D. gave the following history of his case: Has always been strictly temperate in his habits; and has never had any affection of his genito-urinary apparatus.

For several years patient has been one of a relief committee of a lodge of "Knights of Pythias," and while performing the duties of this position he met several members of this order who had great difficulty in passing urine, in consequence of enlargement of the prostate gland, and were dependent on the use of a catheter for relief. Fearing that he might have the same trouble at some future time, and being anxious to provide against such a disagreeable contingency, T. D. determined to practise catheterization on himself with a glass tube. In his first attempt he succeeded in passing a medium-sized glass tube into his bladder, and drew off urine, without the parts involved sustaining any injury. The success of this experiment encouraged him to try the operation a second time, the results of which were less satisfactory, as the sequel will show. On the day of T. D.'s admission into the hospital, he procured a straight

glass tube, about 25 centimetres (10⅛ inches) in length, and half a centimetre in diameter, with which he proposed to repeat self-catheterization. He had no difficulty in introducing the tube as far as the prostatic urethra, but at this portion of the urethra the tube was suddenly arrested. D., in his efforts to overcome the obstruction, used sufficient force to break the tube in two pieces, one of which he immediately pulled out of the urethra, but the other being out of his reach, was left in. Shortly after D.'s admission to the hospital, I made an examination, and found the fragment of the glass tube fixed in the urethra, one end in the prostatic portion, and the other penetrating the wall of the scrotal part. The fractured end of the fragment, D. had forced through the floor of the urethra into the loose cellular tissue of the scrotum, by his attempts to get the tube out. He had also tried to expel the tube by passing his urine; but instead of displacing it, it only served to carry urine into the scrotum, through the cellular tissue of which the urine was quickly diffused. From the position in which the foreign body lay in the urethra, and the manner in which it was held there, it was evident that it could not very easily be extracted by any instrument, such as forceps, passed into the urethra. Nor could it be removed through an opening made in the perineum without risk of doing additional violence to the already lacerated urethral walls. To take it out through a perineal section would necessitate the breaking of the fragment of tube in two or more pieces in the urethra; and the removal of which pieces would be attended with considerable danger, in consequence of the sharp, angular ends which the pieces would have. In considering the difficulties of the case from all points, it occurred to me that, in consequence of the fractured end of the broken tube being already in the scrotum, the safest and the most practicable plan of removing the tube would be, either to make an opening in the integuments of the scrotum, and extract the tube through it, or to introduce my finger into the patient's rectum, get behind the smooth end of the tube in the prostatic urethra, if possible, and push the sharp end forward through the scrotal walls. As soon as the patient had been brought under the influence of ether, I directed two assistants to support his legs in the position that they would be held in the operation of lithotomy, in order that the scrotum and perineum might be fully exposed.

I now proceeded to introduce my right forefinger into the patient's rectum, carried it up behind the prostate gland, till I could distinctly feel the smooth end of the tube through the urethral wall; then, having made the scrotal integument tense near the fractured end, with the thumb and finger of my left hand, I quickly pushed the tube forward through the scrotal wall with my right forefinger. The small wound of the scrotum, made by the operation, was instantly closed by contraction of the dartos structure. As the scrotum had become infiltrated with urine prior to the extraction of the tube, I made four free incisions in it, two either side of the raphé, to relieve tension and to get rid of the urine, thereby to prevent subsequent sloughing. For eight days after the operation the patient's urine was drawn off three or four times a day with a catheter, the utmost care being used to prevent the escape of any urine through the wound in the urethra. At the expiration of this period he was permitted to pass his urine in the natural way; this he was able to do freely and without pain, clearly showing that the wound of the urethra had securely healed. Apparently, as a consequence of some injury inflicted on one of the testicles by the end of the tube, a mild epididymitis developed itself soon after the accident; this attack, however, yielded promptly to treatment, and soon subsided. The incised wounds of the scrotum that were made to facilitate the escape of urine from the cellular tissue, healed in a short time under the effects of local applications of laudanum and water. The patient's bowels were kept at rest for four or five days, and some slight pain relieved by suppositories of opium; no subsequent medication was required.

In the progress of this case it is worthy of notice that the patient did not have either a chill, or any symptoms of urethral fever. On the 30th of July D. left the hospital quite well, with the exception of a little enlargement of one epididymis. The length of the fragment that was extracted was 10⅛ centimetres (about 4¼ inches).

Progress of Medical Science.

Intestinal Stenosis as a Result of Tubercular Ulcers.—A woman, 42 years of age, was admitted into the Vienna General Hospital with a history of having suffered for ten years from paroxysmal attacks of gastric pains, accompanied by vomiting and loss of appetite. During the preceding five weeks she had suffered also from abdominal pains, with alternating diarrhœa and obstipation. When admitted she was very emaciated and anæmic. The abdomen was very tender on pressure, especially in the epigastrium and above the symphysis. Vaginal examination showed that the end of the vagina and the uterus were very sensitive. No abdominal tumor could be discovered. The paroxysms of pain were accompanied by loud rumbling and colicky contractions in the intestines. The examination of the lungs and other organs was negative. The evacuations were often very profuse and fluid—partly fæcal and partly mucous, grayish or yellowish. They were generally followed by relief of the abdominal pains. These diarrhœal passages alternated with obstipation. Old grape seeds were frequently found in the evacuations, although the patient had eaten no grapes during the preceding year. This circumstance pointed strongly to the existence of an intestinal stenosis. One obscure point in the clinical history was the very frequent occurrence of high fever (104° F.) at night, followed by profuse sweating. Quinine had very little effect on these attacks of fever. They naturally aroused a suspicion of tuberculosis, but the examination of the lungs revealed nothing abnormal, and there was absolutely no cough or expectoration. Four months after admission to the hospital salivation set in, without any affection of the mouth. These symptoms persisted for eight months, when the patient died of exhaustion.

The section revealed groups of gray and yellow nodules and spots of caseous hepatization scattered throughout the upper lobes of both lungs; slight swelling of the gastric mucous membrane. About the junction of the jejunum and the ileum a short stretch of the intestine was twisted in various directions by false membranes and adhesions, and was bound fast to the abdominal wall in the neighborhood of the internal inguinal opening. At the point of adhesion the intestine, the lumen of which was already diminished by the twisting, was still further constricted by a wide, ring-shaped ulcer with a slate-

gray callous base containing yellow, cheesy masses. The uterus was enlarged and dense; the tubes were distended and filled with cheesy masses.—*Bericht der k. k. Rudolph-Stiftung in Wien*, 1877.

Acute Ascending Paralysis.—Dr. Jaffé reports a case of the rare form of disease known as acute ascending paralysis (Landry's paralysis). The patient was a young man, 25 years of age, with an excellent family history, and came under observation on October 2, 1877. He had contracted a syphilitic ulcer nine months previously, followed by secondary roseola, and he had indulged very much in venery for a few weeks previous to the onset of his present illness. August 31, 1877, the patient began to suffer from diarrhœa, debility, and a feeling of heaviness in the legs, which had increased to such an extent by October 2d that he was unable to leave his bed.

Present condition, October 2d: Pulse and temperature normal; lower limbs completely paralyzed; reflex action lost; sensibility perfect. Upper limbs are normal. In the course of the day patient complained of a painful pressure upon the chest. October 3d: Diarrhœa has ceased after the adminstration of opium. The nerves and muscles react normally to the induced current. The hands have become paretic. October 4th: Paresis of upper limbs has increased to such an extent that the patient is unable to feed himself. No urine was passed for the last twelve hours. Temperature still normal. The paralytic symptoms increased in intensity for the next three days; retention of urine still persisted; respiratory movements were very superficial. The faradic excitability of the paralyzed parts had markedly diminished, but slight galvanic excitability still persisted. Sensation and cerebral functions normal. Tendon reflex could not be obtained. The muscles contracted readily upon slight percussion. There was no atrophy of the limbs. The patient was placed under antisyphilitic remedies. Symptoms remained the same until October 12th, when dyspnœa set in, in consequence of acute pulmonary œdema, and the patient died in a few hours. This case is differentiated from poliomyelitis anterior acuta by the ascending character of the paralysis, by the absence of atrophy of the muscles, and by the absence of degenerative reaction. This observation disproves the opinion that the electrical excitability of the paralyzed nerves and muscles is always retained in this disease. Unfortunately, no post-mortem could be obtained.—*Cent. klin. Wochenschr.*, November 4, 1878.

Trephining in Epilepsy.—In the *Archives Générale de Médecine* for December, 1878, Dr. Echeverria has published a *resumé* of the results of trephining in epilepsy resulting from injuries of the skull. He has collected 145 cases of this operation. Of these, ninety-three were followed by recovery; eighteen by improvement; in five no change was produced; one was rendered worse; and death resulted in twenty-eight cases. The causes of death, in the fatal cases, were extremely varied, viz.: suppuration over the whole surface of the brain, hemorrhage into the brain under the seat of operation; gangrene of the membranes and cerebral abscess; obstinate hemorrhage of the superior longitudinal sinus; meningitis and meningo-encephalitis.

Dr. Echeverria gives the following *resumé* of the results of his analysis of the cases referred to:

Trepanation is the best means which can be employed in the treatment of epilepsy caused by injuries to the skull.

The immediate operation appears to be almost as successful as the late; fever forms a serious contra-indication to the operation. Insanity and paralysis justify the operation.

Trephining succeeds equally well when syphilitic products upon the bones of the skull, and which have proved rebellious to specific treatment, act as the cause of epilepsy.

The success of the operation depends, in great part, upon our ability to prevent irritation of the cerebral meninges.

It is, finally, advisable to keep the patient under anti-epileptic treatment for some time after the operation, in order to overcome the so-called epileptic *habit* of the nervous system.

Rare Cases of Laryngeal Paralysis.—Dr. G. M. Lefferts has published, in the last number of the *New York Medical Journal*, two extremely interesting cases of bilateral paralysis of the dilator muscles of the glottis (musculi crico-arytænoidei postici), in both of which recovery occurred. The first patient was a woman, æt. 40 years, who had previously suffered from secondary and tertiary manifestations of syphilis. At the end of April, 1876, she began to suffer from continually increasing dyspnœa, and on May 7th had two severe attacks of laryngeal spasm. Inspiration was attended with stridor and considerable muscular effort; expiration was noiseless, easy, and short. The voice was but slightly husky. On laryngoscopic examination, a narrow slit was seen between the vocal cords, gaping slightly during expiration, and *disappearing entirely* on forced inspiration. The sensibility of the laryngeal mucous membrane was undiminished. The patient was placed under antisyphilitic remedies, and on June 15th laryngoscopic examination showed normal condition of the glottis, all the dyspnœal symptoms having likewise disappeared.

The second case reported by Dr. Lefferts was, in all respects, the same as the first. It occurred in a syphilitic female patient, and rapidly improved under antisyphilitic measures. Apropos of the first observation, Dr. Lefferts expresses the opinion that, in the absence of corroborative evidence of any specific lesion in the nervous centres, he must regard the paralysis of the muscles as due to some direct and local effect of the syphilitic virus, although what the nature of this action is, he is unprepared to state. This hypothesis does not appear to be supported by any positive evidence in its favor.

Lymphatic Elephantiasis Arabum.—The results of a post-mortem examination of a fatal case of lymphatic enlargement of the thigh and leg were reported by Dr. Day, of London, to the London Pathological Society. They were principally negative, for which Dr. Day accounted by our very limited knowledge of the physiology and the pathology of the lymphatic system. There was no evidence from this examination of any obstruction to the femoral vein, and, apparently, no enlargement of the arterial or venous trunks, though it seemed highly probable that some great disturbance took place from time to time, owing to the heat of the limb, pain and swelling, and especially those rapid local changes in the limb which ensued shortly after the fatal seizure. There was an increased length and growth of the bones of the affected limb, in which this case differs from all the cases of which Dr. Day has any knowledge, although a similar one is said to have been reported by Dujardin, in 1854.—*Chicago Medical Journal and Examiner*, December, 1878.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, January 25, 1879.

PROFESSIONAL ATHLETES AND PHYSICAL EXHAUSTION.

Public attention has been directed, particularly within the past few months, to various extraordinary feats of pedestrianism and wrestling. As might have been anticipated, the interest has been carried to that extreme of absurdity which has culminated in betting upon the endurance of human beings the same as upon that of horses or other beasts. The consequence has been that, instead of elevating healthful exercise in the estimation of the people, athletes are found who are willing to prostitute their powers and cater to a morbid appetite by testing their strength, even to the jeopardy of life itself. Fatigue takes the place of natural reaction, and exhaustion means victory.

Not long since a lady completed a walk in Brooklyn, apparently for the purpose of proving how much severe work she could undergo, and from how much sleep she could deprive herself in the meantime. At the end of the trial we hear of her victory coupled with the apparently unimportant statement that she was thoroughly exhausted, and had delivered herself up for medical treatment. It is also stated that the greatest care has to be taken to return her to her previously normal condition, in order that she may not suffer from the dreadful reaction which outraged nature inflicts. And this history does not stand alone in the records of pedestrianism or wrestling-matches. Not long since an athlete was carried from the ring fainting, with weak cardiac pulsations, and in a general state of prostration, which prospected permanent disability. The heart-strain of soldiers during forced marches, of oarsmen in a hotly contested race, of gymnasts in a vaulting-match, are accidents which are acknowledged to be of quite frequent occurrence, but are seemingly entirely lost sight of in the desire for a victory, the expenditures of strength and of vitality in which could at any time be surpassed by many of the lower grade of animals.

A few days since it was announced that a wrestler in Chicago sustained a fracture of the clavicle, by being heavily thrown during a performance. Of course this was legitimate, and the suffering man was defeated. But how can all these things prove that professional athletism is a useful science, and that its study from such a standpoint should be encouraged with the American people?

We are accustomed to advise our patients that exercise beyond the point of fatigue is detrimental; what can we say for the benefit of such exercise when it approaches the verge of absolute exhaustion?

SCHOOL HYGIENE.

In a recent number of *Puck* a very suggestive cartoon bearing upon school hygiene is presented. A class of infants with enormous heads and attenuated frames worn out by exhaustion are being taught by a skeleton who, in his blackboard definitions of grammar and geography, etc., makes some capital hits on the prevailing school diseases. Between him and the scholars is an open sewer-trough, the poisonous vapor from which obscures the map upon the wall and causes a member of the Board of Education, who, oddly enough, is on a tour of inspection, to hold his nose. Sketches like these are exceedingly effective, and no cause like the one which is at present being plead is more worthy the advocacy of the gifted pencil. Too much pains cannot be taken to bring the matter before the people in the way of compelling a proper reform.

In connection with the latter point, it is a subject for great congratulation that the Board of Education has at last been so effectually aroused by the press, that steps have been taken to inquire, by means of a committee appointed for the purpose, into the sanitary condition of the schools. As an evidence of their earnestness in the matter it may be stated that when one of the Board chose to insult the gentlemen of the press and other parties, by attributing to them interested motives in regard to the matter, the other members apologized for him and wished to place their protest on record. We shall watch the doings of the committee with much interest.

MEETINGS AND TRANSACTIONS OF THE STATE MEDICAL SOCIETY.

We are glad to receive from Dr. Smith, the present Secretary of the State Society, a letter (in another column) which appears to throw some color of legality about the change in the meeting time of the Society in 1876, and also affords confirmation of the rumor, to which we had previously alluded, that there had indeed been a meeting of the State Society in February of that year, the minutes and proceedings of which meeting, however, have never appeared in the published Transactions of the Society. Concerning this meeting, Dr. Smith says: "They had therefore

full authority to adjourn this annual meeting to June, 1876." The Transactions, however, do not speak of the June meeting as an adjourned, but as "The Annual Meeting held pursuant to statute." If, as suggested by Dr. Smith, the change February 1, 1876, was made in accordance with the provisions of the Act of 1823, it will be interesting to learn whether this actually took place before or after the passage of the statute of February 1, 1876. It is certainly a little curious, moreover, that the twenty-three members of the State Society then assembled in Albany knew nothing of the legislation affecting their interests, which on that very day became law, and it is still more curious that none of the officers of the State Society appeared to know of the existence of this statute, until more than eighteen months after its enactment. We presume the true state of affairs, however, may be arrived at when the omitted minutes are published. It is but justice to Dr. Smith to state that the matters here referred to occurred before he became Secretary, since which time the Transactions appear to contain the full and entire proceedings of the Society.

There are some other facts, however, connected with the Transactions that should receive consideration. For many years, up to and including 1874, the Transactions were published at the expense of the State, and copies of them were distributed to the county societies, whose members received them either free or on payment of a nominal sum. Some years ago, at one of the annual meetings of the New York County Society, a cart-load, more or less, of these Transactions was brought to the meeting, and the members were informed that they could have them gratis, if they would give themselves the trouble of taking them away. A few members availed themselves of the opportunity, but the remainder of these volumes still remain in the possession of the Society. Since 1874, the Transactions have been published nominally at the expense of the State Society, but virtually at the expense of the county societies, which are compelled to subscribe for five times as many copies as they have delegates, under the supposition that their members would gladly take them at the price fixed by the State Society.

As each fresh invoice was received, notice was duly given by the Secretary to the members of the Society, that the Transactions had arrived and could be obtained from him at cost price. As a matter of fact, but few copies were sold in this way, and at the last annual meeting the Secretary stated that there were still some five or six hundred volumes in the possession of the Society, and that more were coming. After some discussion a motion prevailed to dispose of them to members at the rate of fifty cents a volume. Of this resolution all members were officially informed by the Secretary. The rush for the Transactions at the reduced price had now exhausted the supply. In fact we are informed that not more than a dozen applications were received. At the last meeting of the Society it was voted to distribute them gratis to such members as would call on the Secretary for them. It remains to be seen how much this offer will reduce the stock on hand. It is certainly very clear that the members of the New York County Society do not want the volumes at the price which the Society has to pay for them, and under these circumstances the Society may well consider whether it is to its interest any longer to encourage the publication of volumes whose value to them does not appear to be equal to the cost of production.

THE ALCOHOL QUESTION IN ENGLAND

WITHIN a comparatively recent time serious attempts at temperance reform have been begun in England. Many prominent persons have interested themselves in the agitation, which has shown itself in the organization of coffee-house companies, in the securing of pledges, and in demands for new legislation. The idea of drinking only water is a novel one to the English mind, but the energetic efforts of the reformers have at length brought it into prominence. There has recently appeared in the *Contemporary Review* a kind of "symposium" on the alcoholic question, the contributors being seven English physicians, most of whose names are familiar. Some idea of what their opinions are may not be uninteresting.

Sir James Paget takes the ground that the moderate habitual use of alcohol is "certainly pleasant and probably useful." In regard to moderate drinking, he says that the balance of medical and of popular feeling favors it, and that neither statistics nor physiological or pathological researches have proved it injurious. Nations who use alcohol largely, compare well with those who do not use it, and they do not appear to have inherited evils from their many generations of drinking ancestors.

Dr. T. Lauder Brunton takes up the more practical side of the question, discussing how and when alcohol is useful. There is, he says, a small class to whom alcohol is a poison; the smallest amount sets them wild. There is a second class whom alcohol exhilarates and quickens for the time; such persons indulge in it at great risk. The great majority of persons under middle age do not need it, and, as a rule, are better without it. In persons who are in the decline of life, however, and in the debilitated, alcohol is a powerful and beneficial remedy. Alcohol is given as a food and as a stimulant. It is a food, but is one which interferes with the oxydation of other foods in the body while it is being itself decomposed, and as a food it is only adapted to febrile conditions. As a stimulant it acts directly upon the heart, and reflexly upon the stomach, stimulating the circulation of the brain. After the first stimulus to the nervous system the [illegible] effect of alcohol is one of pa-

gressive paralysis. The higher centres suffer first, notably the judgment, and finally all succumb. Alcohol as a stimulant is useful occasionally to tide over a severe crisis, but its best effect is in rousing the system at the close of exhausting work.

Dr. Albert J. Bernays believes in the moderate use of alcohol also. He dwells more especially on the causes and extenuating circumstances of intemperance. In regard to these, he says that the water furnished by London, to its lower classes at least, is extremely bad and undrinkable. Then the adulterations in beer make its effect worse. Sugar is put in, and this destroys its thirst-quenching property, and salt acts in the same way; these being the two important adulterations. The variations in the alcoholic strength of liquors increase intemperance. At present, gin may have all the way from fifty-four to eighty per cent. of alcohol in it. The atmosphere of public-houses is foul and overheated, and is injurious to the workingmen who sit there. Beer is the best form of alcoholic drink according to Dr. Bernays, and wine the next. The present intemperance cannot be corrected by teetotalism, but it can be alleviated by other methods.

Dr. Walter Moxon takes ground against total abstinence, but devotes most of his article to a psychological explanation of why a man becomes a sot. His analysis of the question is sufficiently profound and correct, but it only tells us in polysyllabic terms that the nervous, excitable temperaments are more susceptible to alcohol than the phlegmatic ones.

Dr. S. Wilkes asserts alcohol to be, to all intents and purposes, a narcotic and not a stimulant. It does not help those who are under special mental pressure, such as students working for prizes. It makes those engaged in intellectual effort less clear-headed, and under its influence the English laborer does less work.

Sir Wm. Gull is more careful in his recommendations of alcohol. In disease and debility it is useful, and also in overwork; but in the latter instance other things will do just as well, and Gull himself, when exhausted, eats raisins instead of drinking wine. Good food will supply all the wants of the system up to middle life, and though a glass of beer may help a laborer along, a biscuit will do just as well. Intellectual work can be done better without the alcohol. Bitter tonics or Liebig's extract of meat may quiet the craving for liquor which many persons have at times.

Dr. C. Murchison states that a man in good health does not need alcohol, and is probably better without it. He may take liquor occasionally without harm, but its habitual use, even in moderation, is attended with risk and may even induce disease. In conditions of the system characterized by weakness of the circulation, the habitual daily use of alcohol is likely to be beneficial.

It will be seen that in general these views coincide with those of the profession at large. Alcohol in disease is a valuable remedy; in the decline of life it is a useful adjunct to the diet; in healthy persons who have been overworked, it helps recuperation; its habitual use is always attended with risk.

As regards total abstinence, we believe it to be unattainable, and, except for the young and healthy, undesirable. There is an appetite for alcohol which will be satisfied, and which neither temperance societies nor legislatures can destroy. It would be better, then, if the spasmodic efforts of these bodies to prevent the use of alcohol altogether were directed to seeing that it is used temperately. There is much to be done in the way of introducing good malt liquors and light wines, in establishing coffee-houses, and in introducing harmless substitutes for alcohol. It might be of help if physicians would impress the fact that alcohol is essentially a narcotic, not a stimulant. And something might be accomplished by educating every one, not omitting the higher classes, to a deeper sense of the beastliness of inebriety.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 11, 1878.

DR. JOHN C. PETERS, PRESIDENT, IN THE CHAIR.

ADENO-CARCINOMA OF CHEEK—PLASTIC OPERATION.

DR. GEO. F. SHRADY presented a tumor of the cheek, which he removed Nov. 25th from a male patient aged forty-three years. The specimen was not so interesting from a pathological as from a surgical point of view; in fact, the principal object of its presentation was to illustrate a somewhat novel method of filling up a vacancy which was occasioned by the operation. (*Vid.* page 82.)

DR. POST remarked that the use of the flap with a curved neck in that situation was a novelty, and the very satisfactory result of the operation showed its superiority over the ordinary straight flap which is generally advised.

DR. HOWE did not see the necessity for horse-hair drainage in Dr. Shrady's case. He believed that the wound would have healed entirely without it; as it was, the only part that did not unite was in the track of the drain.

DR. SHRADY remarked that the horse-hair drain was introduced as a precautionary measure, and was allowed to remain only twenty-four hours, giving exit to the bloody serum, which might otherwise interfere with primary union at other points.

DR. POST thought in all such cases it was best to be on the safe side, as there was generally some oozing of serum under the flap. If this matter accumulated it might produce an abscess which would necessitate the tearing open of some part of the original wound, or the making of a new opening.

AN INTERESTING CASE OF OMENTAL HERNIA.

DR. ALFRED C. POST presented a specimen of omentum with the following history:

On the 3d December, 1878, I was called to Jersey

City, in consultation with Drs. Quimby and Kiersten, Jr., to see Mrs. ——, ætat. 37, who had had what was supposed to be a reducible inguinal hernia for about twelve years, and had worn a truss for the same. Six days before I was called in consultation the hernia was represented to have come down, and she could not replace it. The swelling became hard, inflamed, painful, and tender on pressure. The bowels had been somewhat constipated, but enemata had brought away some fæcal evacuations. There had been some vomiting, but not of a stercoraceous character. Leeches had been applied, with partial relief of the pain. I found a hard swelling of an ovoidal form just above Poupart's ligament, extending from the pubes nearly to the anterior superior spinous process of the ileum, but not descending into the labium. There was no resonance on percussion. The patient being etherized, an attempt at reduction was made, but without success. There was considerable uncertainty as to the diagnosis of the disease—the form, the position, and the firmness of the swelling seeming to indicate the existence of an inflamed lymphatic gland, while the clinical history rendered probable the existence of a hernia. It was determined to make an incision down to the diseased structure, and to do whatever the circumstances of the case seemed to require. Dr. Quimby accordingly cut down on the tumor above Poupart's ligament and parallel with it, and cautiously divided layer by layer, until a sac was opened, from which there was an escape of an ounce or more of bloody serum. There was no intestine in the sac, but a mass of omentum, intensely congested, of a very dark color like that of venous blood, but not softened in its texture nor emitting a gangrenous odor. This was very carefully unfolded to ascertain that no portion of intestine was concealed within it, and being deemed unfit to be returned within the abdomen, was excised with scissors close to the external ring. After this a free application of carbolic acid (1 to 40) was made to the stump, which was then carried upon the finger into the abdominal cavity. The wound was then thoroughly sponged with the same carbolic solution, and tents moistened with the same were introduced into the sac and into the wound outside of the sac. The edges of the wound were then closed with fine sutures, except at the end where the tents protruded. Linen cloths, wet with the carbolic solution, were then applied over the wound, and directed to be covered with oil-silk.

On the 7th December, Dr. Quimby reported that the patient had suffered considerable pain on the day after the operation, but that relief had been afforded by an eighth of a grain of sulphate of morphia every hour. The patient had since done well.

THE DIAGNOSIS OF STRANGULATED HERNIA.

Dr. Briddon referred to the case of a German woman, upon whom he had operated for strangulated hernia, many years ago. The patient had been treated by an apothecary for six or seven days for inflammation of the bowels. She then fell into the hands of Dr. Aigner, who asked Dr. B. to see her. The history of the case was one of incomplete obstruction. There was vomiting, but it was not stercoraceous in character. The parts presented precisely the character of a suppurating bubo. The centre of the swelling was traversed by Poupart's ligament, and the periphery of the swelling was œdematous. An incision down upon the sac gave exit to a considerable quantity of fetid serum. The gut was of a dark maroon color, but was not gangrenous. After the stricture was divided the gut was returned. The patient made a good recovery. On the ninth day after the operation, she, considering it a critical period, took an ounce of cream of tartar, which insured for her a good passage, not only per rectum, but through the wound. The wound subsequently healed.

A second case, to which he also referred in this connection, was that of an Italian woman whom he saw with Dr. Walter Gillette. This patient had also the symptoms of partial intestinal obstruction, viz., vomiting, but not stercoraceous in character. A swelling extended on the right side from the spine of the pubes to the anterior superior spinous process of the ilium. It was impossible to distinguish the character of the hernia because, as in the former case, the tissues were infiltrated, the parts were immovable, and the skin was œdematous, as in abscess. An incision being made, he came down upon a cavity containing pus which was apparently in the intestine itself. The neck of the sac was situated external to the femoral artery after having passed underneath the ligament. At the bottom of the cavity laid open was a structure lying under the mucous membrane, which he supposed to be the appendix vermiformis. Whether it was a case of hernia of the cæcum or not, he was not prepared to say. Fæcal matter was discharged from the wound for some time, and then everything closed up.

A third case, bearing upon the question of the diagnosis between swollen lymphatic glands and hernia, was also recited. He was called, two or three years ago, to see the son of a physician, who was said to be suffering from the symptoms of strangulated hernia. The little patient was six years of age. He presented a swelling in his groin, immediately over the saphenous opening, and about the size of a hickory-nut. It was movable, gave no pain, and there was no vomiting. Dr. B. felt quite sure that there was no hernia, but an abscess. The father of the child assured him, however, that there was no swelling in the groin an hour before. With the assistance of Dr. Mason, who was called in counsel, an explorative incision was made over the swelling. On dividing the superficial fascia, the resemblance of the appearance to that of hernia was very marked, as the swelling was underneath the cribriform fascia that covered the saphenous opening. The incision was continued through the fascia, when an inguinal gland as large as a hickory-nut was turned out, and that was the end of the hernia.

Dr. Mason remarked that in the latter case there was vomiting and tenderness on deep pressure over Poupart's ligament.

Dr. Briddon did not recollect that point in the case.

Dr. Post had met with vomiting and abdominal pain associated with inflamed glands, especially if the latter were situated beneath the deep fascia.

SCIRRHUS OF BREAST.

Dr. Post also presented a specimen of scirrhus of the breast, with the following history:

Mrs. O'B., ætat. 65; admitted into the Presbyterian Hospital November 18, 1878. She had been married forty-five years, and had had no children. She noticed a tumor in the breast about five months before her admission. The tumor involved less than half of the substance of the gland. The nipple was retracted, but the skin moved freely over the breast, and the breast was free from any adhesion to the subjacent parts. The lymphatic glands were not apparently involved in the disease.

On the 21st November I excised the breast in the usual manner, removing with it a strip of integument about two inches wide, including the nipple. There was very little hemorrhage, and only two vessels were

tied. I did not use antiseptics until after the removal of the tumor, when I washed the whole surface of the wound with a carbolic solution (1 to 40), and introduced a drainage-tube through the whole length of the wound, projecting at the two extremities. I then closed the wound with numerous fine sutures, after which the carbolic solution was injected through the drainage-tube. The wound was then covered with lint moistened with the carbolic solution, over which oil-silk was applied. No bandage was applied over the dressings. Within about a week the sutures and the drainage-tube were removed, and union had taken place throughout nearly the whole of the *wound*.

I have performed excision of the mammary gland at the hospital in two other cases within the last two months, and employed similar dressings, with like results. In one of these cases, a male patient, whose general health was much impaired, a portion of the wound reopened, and has been tardy in healing.

EXCISION OF KNEE-JOINT.

Dr. E. Mason presented the knee-joint which he had excised from a patient of Bellevue Hospital on the 25th of last September. The patient, who was also exhibited, was thirty-six years of age, married, and a laborer by occupation. About six months before admission to the hospital he injured his knee by a stroke from an axe. The wound was a superficial one, and healed in three days, when he returned to his work, that of a miner. In the course of a few days afterwards the thigh became swollen and painful. A surgeon made an incision on the inner side of the knee, and, according to the patient's statement, a pearly colored fluid escaped. This wound continued open. Shortly after the incision an abscess discharged itself on the outer side of the knee, and at the bottom of the sinus, which was still open, bare bone was detected. Three months before admission a spontaneous opening appeared below the tubercle of the tibia. The leg was flexed upon the thigh at an angle of 160°, the joint was fixed, and the head of the tibia dislocated backward. On examining the patient it was supposed by some of the surgeons that bony anchylosis existed. Through the opening on the inner side of the head of the tibia a probe could be passed into the cavity of the joint. When the patient was placed under ether, motion of the joint could be obtained, and bony crepitus could be elicited.

It was evident that the whole joint was completely disorganized. The ends of the articular surfaces were sawn off, the extremities of the bones wired together, a drainage-tube was introduced, and the limb put up in an immovable plaster apparatus. The operation as well as the dressings for some weeks afterwards were done under carbolic spray. The patient did remarkably well. At no time, with one exception, did his temperature rise above 100° F. At the end of the first week the wound had healed except in the line of the horse-hair drain. The latter was removed at the end of the second or third week, and all the apparatus was *removed*. At the end of six weeks the silver wire was withdrawn and firm bony union was found to have taken place. Since that time the patient had been walking around the ward with the aid of a cane.

Stated Meeting, December 26, 1878.

Dr. John C. Peters, President, in the Chair.

RHINOPLASTY.

Dr. A. C. Post presented two photographs illustrating the appearances before and after the operation for rhinoplasty. In the month of June last, a male, aged eighteen years, presented himself for treatment at the Presbyterian Hospital, with a deformity of the nose, occasioned by the kick of a horse ten years before.

The nasal bones had been fractured and driven down almost to a level with the facial plane, while the top of the nose was turned strongly upward, the nostrils presenting themselves anteriorly.

The operation consisted in making an incision from cheek to cheek, through the nasal pyramid, and about three-quarters of an inch from the tip of the nose. The nasal septum was divided and the tip brought down to its proper relation, the vacancy occasioned thereby being filled by a flap from the forehead. Several minor operations were performed subsequently, resulting in a well-formed nose.

Dr. Post stated that Dr. Weir performed a similar operation upon a patient with an upturned nose, but took the flap for filling the chasm from the side of the cheek.

RAPID LITHOTRITY

Dr. Sands presented a vesical calculus which he had removed by Bigelow's operation of rapid lithotrity. The patient was a gentleman sixty-nine years of age, of delicate constitution, and who had suffered for a long time from lung trouble supposed to be chronic phthisis, and who had at the time he came under observation slight albuminuria, the urine also containing hyaline casts. Symptoms of stone showed themselves two years before the operation, and during the summer of this year he was examined by a gentleman of this city, who referred him to Dr. Sands. Dr. S. saw the patient in consultation with Dr. DeHart, at Chappaqua, and performed the operation on the 28th of October last. The urine contained a moderate amount of pus and triple phosphate. Although it had been noticed at previous examinations that uric acid was contained in the urine, it was believed that the stone was hard. So it proved to be. The operation lasted one hour and ten minutes. The fenestrated lithotrite was used. The aspirator was employed twice only. The first time the fragments were removed, the second time the bladder was thoroughly emptied. The prostate was enlarged. The uretha was capacious and would have admitted a larger tube than the one employed. The size used was No. 28, and was a curved one, the straight tube having failed to enter. The stone was found to consist of uric acid. It measured in diameter one and a quarter inches. It was pretty thoroughly crushed before the aspirator was used. When the tube was inserted the first gush of urine carried with it a considerable quantity of detritus, which was not collected. The fragments which were obtained weighed ninety grains. The patient had no bad symptoms after the operation. In the third week he was able to get out of the house, and within a month walked two miles and a half without discomfort.

In conclusion, Dr. Sands remarked that Bigelow's method was a decided improvement upon the old one, and that the apparatus devised by Dr. B. embodied so many important improvements of Clover's apparatus that it was virtually a new departure.

Dr. Post, while not wishing to detract from any merit belonging to Bigelow's method, wished to state that he had operated in a number of cases successfully by the old plan, and under what *a priori* might have appeared to be great disadvantages. One patient came during the winter months (to Dr. Post's clinic) from Yonkers, a distance of eighteen miles, and returned after each sitting. There were four of the latter, which were necessarily quite prolonged. No un-

pleasant symptoms followed. In that instance the stone which was crushed was of moderate size. When stones were large, the advantages of Bigelow's method over all others were not to be questioned.

THE PATHOLOGY OF NEPHRITIS.

Dr. C. Heitzmann exhibited microscopic specimens of inflamed kidneys. The process of acute nephritis has been studied in his laboratory by Dr. Alfred Meyer, and the results published in the Transactions of the Imp. Acad. of Sciences of Vienna, Vol. LXXV., 1877. Since Richard Bright, in 1827, has drawn attention to diseases of the kidneys very often fatal—the term "Bright's Disease" was extensively used, although it was evident that quite a number of different morbid processes of the kidneys were included in that term. In fact, no scientist should use the expression "Bright's Disease" nowadays, but rather designate the main series of diseases as inflammatory, viz., nephritis. Against the views of Virchow, who distinguishes an interstitial and parenchymatous nephritis, the older denominations of 1. Catarrhal, 2. Croupous, and 3. Suppurative Nephritis, deserve preference, according to the researches of the named author.

1. In acute catarrhal nephritis the epithelia of the tubules are much enlarged, so as to reduce the central lumen considerably; they are coarsely granular, viz., their living matter is augmented, the interstitial connective tissue exhibits the condition of œdema and of beginning inflammatory infiltration. This disease in its highest degrees kills rapidly with the symptoms of uræmia, milder degrees lead to desquamation of the epithelia; these appear in the urine together with a varying amount of albumen, but without tube-casts. In the chronic condition the interstitial connective tissue is reduced to inflammatory or embryonal elements, from which, in turn, new cicatricial connective tissue arises. In the production of this tissue also numerous epithelia share, only after being reduced to a medullary condition. The result of this process, the chronic catarrhal nephritis, including the desquamation of epithelia and the interstitial new-growth of connective tissue, is shrinkage of the kidneys with a uniformly granular surface.

2. In acute croupous nephritis casts are formed in the tubules, according to the intensity of the inflammation in the narrow tubules, in the convoluted tubules of the second order, and also in the straight tubules. Casts are evidently products of an exudation from the blood-vessels, together with changed epithelia of the tubules. Alfred Meyer holds that the irregular, mainly flat epithelia, as a rule present around the casts, are newly formed after the destruction of the original epithelia had taken place through imbibition with an albuminous exudation. The interstitial connective tissue is considerably infiltrated with inflammatory elements; the capillary blood-vessels, mainly those of the tufts, are dilated, and either choked with blood or with a solid coagulation identical with that of the tube-casts. The result of croupous nephritis, if healing be the termination, are irregular cicatricial depressions on the surface of the kidney, which almost never has decreased in size. The large fatty and waxy kidneys are to be considered as results of secondary changes after primary nephritis.

3. Suppurative nephritis appears either in the shape of disseminated foci of pus, or in the shape of large abscesses within the tissue of the kidney. The formation of pus can be traced both in the interstitial connective tissue and in the epithelia of the tubules. Both kinds of tissues are first reduced into the medullary condition, and in this condition lead through proliferation of living matter to the formation of new medullary or inflammatory elements. Lastly these elements are isolated and bear the name pus-corpuscles. In larger abscesses the pus sometimes becomes inspissated and cheesy, this representing a merely secondary change, independent of tuberculosis.

AN ATLAS IN TWO SEGMENTS.

Dr. Briddon presented an atlas in two segments, and gave the following account of it:

By the courtesy of Dr. I. C. Foster, of Clarksville, Texas, I am permitted to present a rare specimen from the human skeleton, viz., an atlas in two segments; with it I present a similar normal bone from the adult, so that you may compare the two. It will be found that the two segments would constitute a single bone somewhat larger than the one with which you compare them; the vertebral foramen is certainly larger, measuring laterally and antero-posteriorly one inch and three-eighths, and from the extremity of one transverse process to the other, three inches; the separation or division into lateral halves is through the centre of the anterior and posterior arches; the posterior half arch terminates in a blunt extremity on the left side, and the demi-facet for the odontoid on that side is larger than on the right; on the right side the posterior arch terminates in a point; it is probable that in the recent specimen the extremities of the arches were covered with cartilage and united through the medium of fibrous tissue; but of that nothing is known, for the specimen has no history.

In the April No. of *The Amer. Jour. of Med. Sciences*, 1874, is a woodcut of a precisely similar specimen, obtained from a man about seventy years of age, and described by Dr. W. W. Keen, of Philadelphia. The doctor, a well known teacher of anatomy, says: "It is the only one I have ever seen, and I cannot find, after considerable search, any similar instance recorded."

Opinions vary as to the centres of ossification in the atlas. Gray, Sharpey and Quain give three, viz., one for each of the lateral masses, and one occasionally for the arches. Cruveilhier gives four—one on each side for the anterior and posterior arches. Wilson, one for each arch and each lateral mass. Others as many as six, three on each side.

Beclard says: "Ossification commences in the sides of the atlas near its articulating surfaces earlier than at any other point of the column."

Humhpry: "Posterior arches have been found united by bone at five years, occasionally a separate nucleus is developed in the cartilage at the point of their junction. Posterior arches also united at birth by fibrous band, with sometimes a central nucleus, ossified at or before twelve years."

In the Musée Orfila is an adult atlas with the forepart of the arch separate from the sides of the bone, and in Guy's Museum is a specimen of an adult atlas in which union has entirely failed both before and behind, so that the vertebra remains divided into its two primitive lateral portions.

Obstinate Singultus Cured by Muriate of Pilocarpine.—Dr. Ortille reports a case of persistent singultus, due to cerebral embolism, which proved utterly rebellious to all the usual methods of treatment. As the singultus persisted even during the sleep produced by morphine injections, and the strength of the patient was becoming greatly reduced, a hypodermic injection of half a grain of pilocarpine was at last administered. This produced abundant perspiration and salivation, and the hiccough ceased at once.—*Allg. Med. Cent. Zeit.*

NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, November 29, 1878.

DR. SALVATORE CARO, CHAIRMAN.

THE VOMITING OF PREGNANCY—TREATMENT BY RECTAL ALIMENTATION.

DR. A. C. POST related the history of a case of severe vomiting in pregnancy, treated by rectal alimentation.

The patient totally abstained from taking food by the mouth for three weeks.

In the month of March last he was called to visit a lady who was the mother of one child about eighteen months old, which she was still nursing. She was considerably depreciated in health. She had not menstruated since the birth of her child. It was advised that the child be weaned, which was accordingly done. She was suffering from nausea and vomiting at the time, and those symptoms were not relieved by the weaning of the child. There was nothing to suggest the idea of pregnancy. An attempt was made to relieve the vomiting by the use of remedies ordinarily employed in such cases, but the treatment failed. At last it was advised that the woman be confined to the recumbent position, that she should abstain entirely from food taken by the mouth, and that entire reliance should be placed upon rectal alimentation. The nutritious enemata consisted of defibrinated beef's blood, beef tea, milk, and pepsine. The quantity given at each injection was about four ounces, and the injections were repeated every three hours. She was kept upon that treatment for nearly two weeks, yet no marked change occurred in her general condition.

A consultation was proposed, and Dr. Alonzo Clark was called. The council agreed that it was best to persevere in the plan of treatment adopted. Neither Dr. Clark nor Dr. Post suspected that the woman was pregnant. At the end of three weeks the nausea and vomiting were very much relieved, and the patient began to retain food upon the stomach. As soon as food taken by the mouth could be retained in sufficient quantity, rectal alimentation was discontinued, but for three weeks there was total abstinence from food taken into the stomach. On the third of October last the woman gave birth to a strong, healthy child of average size. It was Dr. Post's impression that the prostration of the woman was so great in March, she would have died had it not been for the rectal alimentation.

Reference was also made to a case in which the system was sustained nearly to weeks by the exclusive use of nutritious enemata. In that case the disturbance of the stomach was brought on by the too free use of stimulants.

The two cases illustrated the benefit of entire rest when a morbid condition of the stomach, such as prevented it from retaining food, existed.

DR. SELL mentioned the co. helonias pill as a very valuable remedy in the treatment of obstinate vomiting of pregnancy. The pill was composed of three ingredients, viburnum, helonin, and caulophyllum.

REMEDIES FOR DILATING THE CERVIX DURING AND PREPARATORY TO LABOR.

DR. SELL related a case as an example of several, in which he had used the concentrated tincture of caulophyllum, or squaw weed, with the happiest results, as a remedy to ward off tedious labor. The remedy was especially applicable in those cases in which the woman had habitually suffered severely during the first stage of labor. As a preparatory remedy in such cases it should be administered in twenty-drop doses three times a day, for three or four weeks previous to confinement.

DR. MERRILL remarked that he had witnessed similar results from the use of castor oil during labor. He referred to cases in which he had found the os rigid, had ordered a dose of the oil, and, by the time the bowels were freely evacuated, the rigidity had disappeared, and speedy delivery was effected.

He further remarked that he had used castor oil with good effect in cases in which the uterine contractions were weak and the os was considerably dilated. Given in half-teaspoonful doses every ten or fifteen minutes, the oil had produced marked uterine contraction as rapidly as he had ever obtained by the use of ergot.

DR. SELL regarded the oil as a dangerous medicine to be given during the latter months of pregnancy, for if it had the power to excite uterine contraction, it might produce premature delivery.

He also referred to gelsemium as a valuable remedy in cases of rigid os during labor.

DR. MERRILL remarked that he never ordered castor oil, except when he was convinced that it was time for labor, or the process had already commenced. He always charged his patients not to take castor oil during the last months of pregnancy, if remedies were needed to keep the bowels open, because of the liability to excite uterine contraction.

DR. F. V. WHITE remarked that when he was an interne in Bellevue Hospital, it was customary to administer castor oil to the lying-in women on Sundays, and there were marked results following its administration.

He also asked Dr. Sell if he had not obtained as satisfactory results from the use of chloroform in cases of rigid os during labor, as from the use of gelsemium.

DR. SELL replied that he preferred gelsemium to chloroform.

SPONTANEOUS CURE OF VESICO-VAGINAL FISTULA.

DR. W. T. WHITE gave the history of a case as follows: About six weeks ago he saw a case in consultation, with the view to making an operation for vesico-vaginal fistula. The woman had been delivered by instruments about six weeks previous to the time he saw her, and soon after the operation it was found that urine escaped from some false passage. The examination revealed a fistula upon the left side and near to the cervix. There was an opening at least three-fourths of an inch in length, and edges of the rent were slightly everted. As there was a probability that menstruation might occur within two weeks, it was thought advisable to postpone the operation until that process had passed. About ten days subsequently it was noticed that urine had ceased to escape from the vagina, and an examination at the end of three weeks revealed the fact that the vesico-vaginal fistula was completely closed.

YELLOW FEVER DURING PREGNANCY—QUESTION OF TRANSMISSION OF THE DISEASE FROM MOTHER TO CHILD.

DR. CARO related a case as follows:

Mrs. C., 24 years of age, multipara, of German parentage, and a healthy, strong woman. In 1862 she had yellow fever, and recovered. When the epidemic of yellow fever of the present year broke out she was

living in Memphis. Being pregnant, and fearing that disastrous results both to herself and to her child would follow an attack of the disease, she left that city on the 20th of August and came north. The epidemic at that time was at its height. She arrived at New York on the 23d of August, and on the morning of the 25th she was taken with a severe chill. After the chill she began to have labor-pains, which continued for several hours, when a midwife was sent for, who found that labor had commenced. Within twenty-four hours the woman gave birth to an eight-month child, reckoning from the date at which the last menstruation occurred.

After delivery of the placenta, a chill occurred, and after that chill the lochial discharges ceased. Reaction followed, and the fever increased. A physician was sent for, who arrived at the conclusion that the woman had intermittent fever, and prescribed accordingly. After having the first chill, jaundice appeared, and the patient soon after began to vomit a yellowish black substance. When Dr. Caro first saw her in consultation she was suffering from severe headache, was restless, had great hyperæsthesia over the entire body, and the abdomen was tympanitic and painful; the pulse was 110, and the temperature 103° F.; the skin was of a yellow brownish color, and the patient occasionally vomited mouthfuls of very yellow matter; her bowels were confined, and there was retention of urine. Dr. Caro was not certain whether he had to deal with a case of yellow fever or a case of puerperal fever. That puerperal fever was present he felt quite certain, and he was also quite sure that he had to deal with yellow fever. To quiet the patient, and also to act upon the skin, morphine and bicarbonate of soda were given, and nourishment in the form of beef-tea and milk.

On the evening of the same day Dr. Caro again saw the patient and found her sleeping quietly. The skin was moist, and there had been no vomiting since his first visit. The temperature was 101° F., and the pulse 110. No urine had been passed, and there was a tympanitic sound upon percussion over the bladder. The same remedies were continued. On the following morning, at 7 o'clock, the patient was again restless, and the dose of morphine was increased from one-eighth to one-fourth of a grain every two hours. The temperature was 101° F., and the pulse 110. No urine had been passed, and there had not been any movement from the bowels. With the double view of satisfying both himself and the Board of Health, Dr. Caro asked that Dr. Janeway should see the patient in consultation. A consultation was held, and the conclusion reached that puerperal fever was the predominant disease, but that yellow fever was also present.

Although the woman was in a precarious condition, it was insisted by the Health Board that she should be sent to Quarantine. She was removed, and died at Quarantine on the third of September. The special point of interest, from a scientific view, was that the child was born healthy and had remained free from the disease. If the mother had yellow fever, the supposition would be that the child should have died from the same disease.

Dr. Caro had no doubt but that the yellow fever, associated with the three days' trip from Memphis, brought on the premature delivery.

The fact that the child survived was evidence to sustain the doctor in the belief that yellow fever was not transmitted from mother to child, as was supposed to be the case with scarlet fever and small-pox.

Again, if a child, in the uterus of a woman suffering from yellow fever, did not receive the poison of that disease, how could a child be narcotized by a hypodermic injection of morphine administered to the mother?

Dr. W. T. White asked if it was the prevailing opinion that a child delivered while the mother was suffering from yellow fever, must necessarily have the same disease?

Dr. Caro replied, that he thought it was.

Dr. White referred to a case in which a pregnant woman had well-marked yellow fever from which she recovered, and at full term, about two months later, gave birth to a living healthy child.

The Section then adjourned.

Correspondence.

THE LEGALITY OF MEETINGS OF THE STATE SOCIETY.

To the Editor of The Medical Record.

Dear Sir:—In reply to the article on page 37 of the current volume of the Record, with reference to the legality of some of the late meetings of the Medical Society of the State of New York, it may be stated that good legal authority, after full presentation of the facts, decided, and so advised the President of the Society elected in June, 1877, that the meeting then held was a perfectly legal annual meeting, and consequently its election of officers valid. Its action, however, in changing the time of holding the annual meeting to the third Tuesday in January was not in compliance with the statute, and therefore the change was illegal and void. At the meeting held January 15, 16, and 17, 1878, it was decided by the members present that that meeting, though not the annual meeting for 1878, was to all intents and purposes an adjourned session of the annual meeting of 1877, and hence a meeting at which a notice of intention to change the time of the annual meeting could properly be given. The change was actually made at the annual meeting held June 18, 1878, and the time for the annual meeting fixed for the first Tuesday in February of each year.

The Register of the Society gives evidence that the annual meeting for 1876 was duly held on Tuesday, February 1, 1876. There were twenty-three in attendance—five delegates and eighteen permanent members—or more than a legal quorum. They had, therefore, full authority to adjourn this annual meeting to June, 1876.

By reference to page 62, Transactions 1869, it will be seen that the act passed April 23, 1823, though entitled an "Act to enable the *County Medical Societies* in this State to alter the time of holding their Annual Meetings," confers that ability on *any society* incorporated under the act entitled "An Act to incorporate medical societies," etc. By reference to that act, as published in the Transactions for 1869, page 59, section 3, it appears that the Medical Society of the State of New York was virtually re-incorporated under that act, and therefore became enabled by the act of 1823 to change the time of holding its annual meetings. The act of February 1, 1876, appears to have been unnecessary.

Yours respectfully,

Wm. Manlius Smith, *Secretary*.

7 Myers' Block, Syracuse, N. Y., Jan. 13, 1879.

DETERMINATION OF SEX IN UTERO.

To the Editor of The Medical Record.

Sir:—The following *facts* (for which I can vouch) may be of interest to your readers.

A and B were married 8th May, 1861. Cessation of menses, 5th May, 1861; intercourse on night of marriage, resulting in a *son* still-born. 13th January, 1862.

Menses ceased 29th July, 1862; coition 31st July, 1862; *son* born 15th April, 1863. No return of menses after birth of this child, but a *daughter* was born 30th October, 1864.

Menses ceased 15th May, 1866; coitus, 18th May; *daughter* born 16th February, 1867.

Menses ceased October 13, 1868; coitus, 15th October; *son* born 10th July, 1869.

Menses ceased 20th March, 1870; coitus, 23d March; *daughter* born 27th December, 1870.

Menses ceased 24th June, 1872. Husband returned after a long absence, 10th July, 1872. Menstruated 18th July; *son* born 10th April, 1873, nine months exactly from date of husband's return.

Menses ceased 20th December, 1875; coitus, 22d December; *son* born 19th September, 1876.

Menses ceased 20th January, 1877; coitus, 23d January; *son* born 27th October, 1877.

In this record of six sons and three daughters, *experience* proves that *either* sex may result from coitus immediately subsequent to menstruation.

Menacrates.

STATE SOCIETY AND NOMINATING COMMITTEE.

To the Editor of The Medical Record.

Dear Sir:—In your editorial in the last number of the Record, January 18th, p. 63, on "The State Medical Society," you are in error in saying that I recommended that the by-law in regard to the mode of forming the Nominating Committee be changed to the present form. The credit for that change is due to Dr. James V. Kendall, of Baldwinsville, Onondaga County. He had proposed and advocated the change at previous annual meetings, and by thus setting many members to thinking of it, it was found that at the meeting of 1877 the Society was prepared to adopt his proposition as an improvement on the then existing plan.

In the President's address to which you refer there is a recommendation to correct the usage of permanent members only being eligible to offices and committees of the Society. And upon this, and most of the other recommendations the Committee on the Address did report adversely.

Very respectfully yours,

E. R. Squibb.

Brooklyn, Jan. 20, 1879.

THE YELLOW FEVER FUND.

To the Editor of The Medical Record.

Sir:—A check for $58 has been received from Dr. Cabell, of Richmond, Virginia. The $2,000 subscribed by the New York Chamber of Commerce has not yet been called for, nor the $250 from the Secretary of State; nor will they be, until the list of the sufferers is complete. One thousand dollars has been forwarded to Memphis, and it is hoped that more can soon be sent. The arrangements with Grenada, Mississippi, are also most perfected. No replies have been received from Vicksburg, Hollysprings, and various other places, which have been written to. Communications have been received from Dr. C. B. White, of New Orleans, and N. E. Ravena, of Charleston, S. C., both recommending a special family as having strong claims upon the profession. The committee again respectfully and earnestly urges its request for all obtainable information.

J. C. Peters, *Chairman.*

Obituary.

JOHN BARCLAY BIDDLE, M.D.

Dr. John Barclay Biddle, professor of materia medica in the Jefferson Medical College, dean of the college faculty, and President of the Board of Inspectors of the County Prison, died at seven o'clock on Sunday evening last, at his late resdence, 331 South Seventeenth Street, Philadelphia. Dr. Biddle had been an invalid for the last four or five years, and took frequent trips to Europe to improve his health. Two weeks ago he was attacked with a severe cold, causing congestion of the lungs and pleurisy, which conditions finally assumed a typhoid type and brought on death.

Dr. Biddle was the eldest of the sons of Colonel Clement C. Biddle, a Philadelphian by birth, born January 3, 1815, who in early life was an officer in the military and naval service of the United States, and who, later, was for a long period President of the Philadelphia Savings Fund. Always inclined towards the medical profession, it was not long after attending schools in this city and graduating from St. Mary's College at Baltimore that he entered the medical department of the Pennsylvania University, under the special instruction of Dr. Nathan Chapman. Upon the completion of his studies there he visited Paris, and placing himself under the instruction of the best teachers, devoted considerable time to lectures and hospital work in that city. Returning to Philadelphia, with Dr. Meredith Clymer he started the *Medical Examiner* about the year 1842. This journal was a weekly periodical devoted to medicine. and achieved success. Dr. Biddle, after a few years as editor, entered upon private practice. In 1844, in connection with Professor Joseph Leidy, Drs. Paul B. Goddard, David H. Tucker, and Dr. Joynes, he founded the Franklin Medical College, which stood for years in Philadelphia on Locust Street near Twelfth. All the supporters of the college gradually withdrew from it to other pursuits, and the college died out; but during its short career it graduated many students who are now distinguished physicians. Upon the death of Dr. T. C. Mitchell, which occurred in 1865, Dr. Biddle, in the fall of that year, was elected to the vacant professorship of materia medica in Jefferson College. Placed in this position he turned all attention towards the preparation of a treatise on materia medica for students, which was accepted by the faculty of Jefferson College, and reached an eighth edition. Soon after taking this chair Dr. Biddle was made dean of the college faculty, and continued both dean and professor uninterruptedly until death.

A dozen years ago Dr. Biddle was appointed Inspector of the County Prison, and a little later the board made him their president. He was attending physician of the Deaf and Dumb Asylum and of Girard College. He frequently contributed to the medi-

cal press. A family of six children and a wife survive him. Of his two sons, Clement, after graduating from the Jefferson Medical College, passed an examination qualifying himself as surgeon in the navy. Recently he sailed for the Mediterranean in an official capacity. William is a navy lieutenant.

New Instruments.

A DOUBLE FORCEPS.

By C. J. CLEBORNE, M.D.,

MEDICAL INSPECTOR, U. S. NAVY.

The little instrument figured in the accompanying illustration combines in a compact form an artery, bulldog and tissue forceps, and two needle-holders.

Like other forceps, they are designed to take the place of the fingers where objects are too small to be grasped by them, or when they cannot be used to advantage. The fenestrated jaws, which I have called "tissue forceps," will be found useful for holding the skin for the passage of needles in making sutures in hare-lip and other operations. It will save pricking the fingers, will hold the tissues firmly, and may be used for temporarily arresting hemorrhage. Both ends of the instrument are deeply grooved to hold needles or pins at any angle, while the inner borders of the points are cut transversely, and are double-toothed, to retain securely an artery or other small object. The blades are held together by the Liston spring, and their middle sections and *sides* are file-cut so as to prevent the fingers slipping. It is handsomely manufactured by the Messrs. Tiemann, at a very moderate cost, and, with or without my tenaculum-needle, will be found a useful addition to the pocket-case.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 12th to January 18th, 1879.

KOERPER, E. A., Capt. and Assistant Surgeon.—Leave of absence granted by S. O. 110, December 3, 1878, from Headquarters Department of the Platte, extended three months. S. O. 12, A. G. O., January 15, 1878.

BARNETT, R., First Lieutenant and Assistant Surgeon.—Assigned to duty at these headquarters from 2d inst. S. O. 3, Department of the Platte, January 6, 1879.

GRAY, C. C., Major and Surgeon.—Retired from active service in conformity with section 1252 Revised Statutes. S. O. 8, A. G. O., January 10, 1879.

DR. S. H. SHANNON, a graduate of the class of 1836 in Jefferson Medical College, died at Schuylkill Haven, Pa., on January 17th, after a lingering illness. He was born at Shannonville, Pa., in 1814. The deceased had a varied and extensive practice of forty years, which gave him a position as a skilful practitioner. He was one of the largest property-holders in the county.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 18, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 11, 1879.	0	8	274	1	2	65	0	0
Jan. 18, 1879.	0	9	204	5	6	52	0	0

MEDICAL SOCIETY OF THE STATE OF NEW YORK.—The seventy-third annual meeting of the Medical Society of the State of New York will begin its Sessions in the city of Albany, on Tuesday morning, February 4th, at 9 o'clock.

The following-named gentlemen have notified the President or Secretary of their intention to present papers for the consideration of the Society: E. R. Hun, "Cavernous Angioma of Tongue;" W. C. Wey, "Twenty-seven Cases of Pleural Effusion, requiring Aspiration;" H. G. Piffard, "Further Contributions to the Treatment of Lupus;" J. R. Leaming, "Phthisis Pulmonali, Classification and Practical Consideration;" Lewis A. Sayre, "The Traumatic Origin of Subfascial, Deep-seated, or Cold Abscess;" J. S. Prout, "The Anatomical Relations of the Middle Ear;" E. M. Moore, title unannounced; J. C. Dalton, (1) "Scientific Ghosts," (2) "Sections of the Brain;" A. Jacobi, title unannounced; Fordyce Barker, "Some of the more Recent Methods of Treatment of Albuminuria and Uræmic Convulsions;" E. R. Squibb, (1) "Note on the Estimation of Urea," (2) "Revision of the U. S. Pharmacopœia in 1880," (3) "Draft of a Proposed Law to Prevent the Adulteration of Food and Medicine, and to Establish a State Board of Health;" Chas. G. Bacon, "Incubation Period of Scarlet Fever;" C. R. Agnew, "Cataract;" W. T. Lusk, "The Treatment of Hemorrhage in Abortion;" H. D. Noyes, "Address on Ophthalmology;" A. Van Derveer, "Uterine Fibroids, a New Treatment;" Norman L. Snow, "Practical Facts Verified by the Treatment of Twenty-five Cases of Fracture of the Femur;" R. F. Weir, (1) "Supra-Condyloid Amputations of Thigh," (2) "Carbolized Jute as a Wound Dressing;" L. D. Bulkley, "The Use of Water in the Treatment of Diseases of the Skin;" W. S. Ely, title unannounced; Alfred C. Post, (1) "Description of a Rhino-Plastic Operation," (2) "Some of the Therapeutic Uses of the Actual Cautery;" Stephen Smith, "Carbolized Catgut Ligatures in the Treatment of Aneurism;" F. R. Sturgis, "On the Abuses of Medical Charities from a Medical Point of View;" Wm. A. Hammond, "Non-Asylum Treatment for the Insane;" D. Webster, "Glaucoma;" Beverley Robinson, "Ulcerative Phthisical Laryngitis and the Value of Tracheotomy in its Treatment;" T. E. Satterthwaite, "Personal Observations in One Hundred Cases of Cancer;" H. T. Hanks, "The Early Diagnosis of Occipto-posterior Positions;" A. L. Loomis, "The Adirondack Region as a Therapeutic Agent in the Treatment of Pulmonary Phthisis;" C. S. Bull, "Pilocarpine;" A. L. Ranney, "Causes of Death during Surgical Operations;" L. Johnson, "The Action of Baptisia Tinctoria in Typhoid Fever;" A. McL.

Hamilton, title unannounced; Alex. Hutchins, "Report on By-Laws;" J. C. Hutchison, title unannounced; J. P. Cruveling, "Laparotomy for Intestinal Obstruction;" Walter B. Chase, "A Case of Dislocation of the Acromial Extremity of the Clavicle downward;" E. G. Loring, "Effect of Optical Condition of the Eye on the Development of Character;" W. H. Thomson, "The Relation of Vascular to Nervous Diseases." The President will deliver an address on "The Relations of the Medical Profession to the State."

Gentlemen who propose to present papers will confer a favor on the officers of the Society by communicating with the President or Secretary at once.

Death of Prof. Landon R. Longworth, M.D., of Cincinnati, Ohio.—It is with deep regret that we hear of the death of Prof. Longworth, which occurred January 14th, as the result of an attack of pneumonia. He for some time past occupied the chair of Descriptive Anatomy and Clinical Surgery in the Medical College of Ohio. Endowed with great natural talent, and being a gentleman of high education, and an industrious and efficient worker withal, he gave great promise of a brilliant future. Although comparatively young in years, he made some valuable contributions to histology, a branch of science which he cultivated with great assiduity.

The Carolina Twins at a Philadelphia Clinic.—The much-advertised "Carolina Twins" were subjected to a scientific examination at Prof. Wm. H. Pancoast's clinic at Jefferson Medical College Hospital, on Saturday last. Before their entrance Dr. Pancoast read his memoranda of the examination of the twins, which he made about eight years ago. He considered the case a much more remarkable one than that of the Siamese Twins, who were two distinct persons, joined by a ligature only, whereas the Carolina colored women had but one backbone in common below the shoulder-blade. Above this point the spinal column branched like the arms of the letter Y. At their birth they were directly back to back, but as they were learning to walk they naturally twisted themselves considerably in order to facilitate locomotion. This change from their original relative positions it was possible to effect without injury or pain to either of them, owing to the softness and pliability of the bones in early youth. There was on record but one case that might be supposed to have been a parallel to that of the Carolina twins. This was that of the famous Hungarian sisters, who were born in 1701, and died in their twenty-second year. Their bond of union, though never scientifically determined, seemed to have been the same as that of the Carolina twins. They differed from the Carolina twins, however, in not possessing the same general characteristics.

Dr. Pancoast showed that if either of the twins were touched upon, or at any point below where the body was common to both, each of them would feel it, but that if he were to touch one of them above the point where the spinal column branched, the communication would reach only the brain of the one touched. He demonstrated, however, that the line was moving higher which divided their common from their separate and distinct nervous sensitiveness. Eight years ago a touch half an inch higher than the common part of the spine could be felt by both; but any farther up the sensitiveness was not shared by the person untouched. Now, however, it was proved by experiment that the common sensitiveness to a touch of the same character existed in either body at least two inches above the angle formed by the Y branches. Dr. Pancoast believes that the twins would die together.

Efficient Quarantine—The following extract from the annual report of Health Officer Vanderpoel to the Quarantine Commissioners is interesting in its bearing upon the question of intelligent quarantine as connected with yellow fever:

"A large number of vessels from ports known to be infected arrived during the past season. Of these an unusual number had sickness and deaths from yellow fever, either while lying in port, on their passage hither, or after arrival.

Forty-five cases of sickness were in the lower bay and at the hospital; of these thirty were yellow fever, and fourteen deaths. Five of these were from sick taken from vessels; three died on vessels arriving, and six from cases received from New York, Jersey city and Brooklyn.

From the ninth of June until the last of September there was not an interval of three days without cases of yellow fever being in the bay. During all that period not the slightest excitement or alarm was manifested by this immense community at its near proximity; nor did a vessel, whether infected or having sickness on board, lose her sailing day from this port.

The Prophylaxis of Scarlet Fever.—A. Hurd, of Finlay, Ohio, in the report of a severe case of scarlet fever occurring in a family of children, writes:

"There were four other children (three younger than the patient, and one older) in the family.

"Must they also have the fever? Can it be prevented? With this view I order the window-curtains to be taken down; all unnecessary articles of clothing to be removed; use carbolic acid freely; ventilate rooms well, and, thinking it will do no harm if no good, put the other children on fld. ext. belladonna and hyposulphite of soda, in doses sufficient to produce redness of the skin and well-marked enlargement of the pupils. Continue it through the whole duration of the sickness of the boy and girl, and to my great gratification all *four* of the *children escaped* and *remained free from the disease*, and do till this date. Was it a happy and wonderful *coincidence*, Was it good ventilation, careful hygiene, and cleanliness, or did belladonna and the hyposulphite of soda, etc., act as a prophylactic?"

A New Philadelphia Medical Journal.—We take pleasure in recording the announcement of the early appearance of another medical journal. The new-comer is the "Medical Bulletin," a sixteen-page octavo, to be edited and published by the Jefferson Medical Association of Philadelphia, and distributed gratuitously. The contents are to consist principally of original matter, having strict reference to the regular practice of medicine and surgery. A particular feature is to be a student's department, in which topics of special difficulty to beginners in medical science will be discussed in a practical way. The journal will begin its existence as a quarterly.

Gintrac.—Henri, Dean of the Medical Faculty of Bordeaux, and Professor of Clinical Medicine, died in Bordeaux on December 2d, of organic disease of the heart. He was 58 years of age. It is less than a year since we had to record the death of his father, also a prominent teacher of medicine.

A correspondent in *The Lancet* admonishes his readers to order "Merck's Extractive Hyoscyamine" in order to obtain uniform results from the remedy. The dose is that of atropia (which it resembles in physiological action) gr. $\frac{1}{60}$ to $\frac{1}{30}$.

Original Communications.

CONTRIBUTION TO THE TREATMENT OF NEURALGIAS.

By WM. B. NEFTEL, M.D.,

NEW YORK.

In looking over my notes on cases of neuralgia, treated by me in the last eleven years, I was surprised to find some features which repeat themselves with great uniformity in almost every instance. They are, therefore, of general interest as characteristic of this class of nervous affections.

The cases of neuralgia which came under my observation were, without exception, of very long standing, having lasted from five to fifteen years and more, and having resisted all methods of treatment. Such cases can serve as a practical test of the efficacy of the methods of treatment employed. While many other chronic affections may, with an indifferent treatment and under favorable circumstances, assume a milder form, or even tend toward recovery, these inveterate neuralgias never improve spontaneously; but, if left to themselves, or not under a proper treatment, invariably remain incurable. Such patients generally become convinced of the incurability of their affection, and, after having tried in vain almost every remedy, they are obliged to resort to certain palliatives in order to mitigate the severity of the attacks, until some intercurrent disease puts an end to their suffering. Sometimes the acute disease does not terminate fatally, and may produce a favorable change in the general health, and modify or even cure the neuralgia. It is remarkable that, from a large number of narcotics which are used as palliatives, only a few afford relief in each individual case, and are therefore permanently employed. Prominent among all is morphia, which is generally resorted to by the physician, whether a member of the regular profession, a homœopath, or belonging to any other school—even the doses being precisely the same, *i. e.*, the quantity necessary to afford relief. The consequence is, that the majority of sufferers from severe neuralgia acquire also the morphia habit. Much depends, however, upon the frequency of the paroxysms of pain. Where they appear at long intervals, allowing the patient time to partially recover, this habit may be avoided; but where the patients suffer almost incessantly, or where the paroxysms repeat themselves at irregular short intervals, the patients nearly always acquire the morphia habit, the latter often being ignored both by the patient and the physician. I select, as an illustration, one of many similar cases which have come under my care at that stage of the disease.

Miss F., æt. 17, suffered from severe headaches since her tenth year. Her mother and grandmother have been always subject to attacks of sick headache, and it was presumed she had the same affection, aggravated by the inherited disposition. Her father is habitually intemperate. The attacks appeared first at considerable intervals, then became more frequent, and during the last three years the patient was scarcely ever free from headaches, which often increased to an unbearable severity. In her fourteenth year menstruation appeared with a great deal of pain, and since that time she has always suffered from dysmenorrhœa accompanied with intense headache. She was treated with bromide of potassium, guarana, cannabis indica, nitrite of amyl, etc., but morphia alone afforded relief, and was, therefore, always resorted to, at first per os, and afterwards hypodermically. During the last three years she was kept more or less under the influence of morphia, as it became absolutely necessary, on her awaking with intense headache, to make every morning a hypodermic injection of $\frac{1}{4}$ or $\frac{1}{6}$ gr. of morphia, after which only could she get up and take her breakfast. Whenever an attempt was made to omit the hypodermic injection she would be unable to leave her bed or take food, and the headache would become unbearable, last in an aggravated form during several days, a week or more, and resist even the increased doses of morphia. For the last four months she had regularly three hypodermic injections per day, and during the severe attacks of headache the doses of morphia had to be increased and the injections repeated several times during day and night. The patient, whom I examined for the first time Aug. 28, 1878, was brought to me for treatment by the family physician, Dr. Gibson. She was below medium size, very pale and delicate, flushed readily, felt weak, had little or no appetite, and was habitually costive. The pulse was small and accelerated, the skin dry, the tongue pale and coated. No fever. She had an incessant cough in consequence of a cold contracted about ten days before. Of late she had been catching colds very easily, which always called forth a cough that lasted a long time and was hard to get rid of. The principal seat of the neuralgic pain was the right supraorbital nerve. Except a slight bronchial catarrh, no organic affection could be detected. Her menstrual period passed a day or two before. It lasted, as usual, about a week, and was accompanied with intense dysmenorrhœa, making it necessary to keep her under the full influence of morphia.

Evidently, in this case, we had two indications, viz.: to treat the headaches and dysmenorrhœa, and to remove the morphia habit.

As a preliminary step the bronchial catarrh was treated by promoting the action of the skin. The patient was ordered warm drinks, mostly hot lemonade, which she found particularly pleasant, having a craving for lemons, the use of which was, however, prohibited before, but which I have always found beneficial in such cases. Besides a nourishing diet and out-door exercise, hydrochloric acid was prescribed after meals, and as soon as the bronchial catarrh disappeared and the digestion improved, iron was given. Every time I attempted to omit the dose of morphia, or even diminish it, the attacks of headache became so violent (with loss of appetite and sleep, and a complete inability to rise) that they had to be controlled by more frequent and increased doses of hypodermic injections. But, under the galvanic treatment and a tonic régime, her health grew better and the headaches became more manageable. Sept. 28th, menstruation returned with dysmenorrhœa and headache. Pulse small and contracted, face pale, expressing great agony. Like on all former occasions, it seemed indispensable to keep her under the complete influence of morphia; but I decided to abolish abruptly the morphia habit, and in order to do so substituted temporarily for this alkaloid another palliative—Merck's hyoscyamine—in small doses. Its effect was prompt, but appeared somewhat alarming, as the face became red, the eyes congested and protruding, the pulse full, the speech incoherent, though at the same time the pains entirely subsided. After a few hours this condition gradually wore off. Then she became troubled with optic hallucinations, all the

objects appearing distorted. She fancied herself surrounded by different animals, and dreaded their sight. She could not keep anything on the stomach, and incessantly asked for morphia. In the evening her condition looked quite alarming; terror-stricken with the hallucinations, without food, and with a filiform pulse, a collapse seemed inevitable, and I almost feared I should have to yield to her continual request and administer a small dose of morphia. However, under the influence of stimulants, her pulse grew stronger, she took some beef-tea, and fell asleep. Under reduced doses of hyoscyamine, for which were afterwards substituted larger doses of quinine, she gradually improved. The dysmenorrhœal pains and headache ceased on the third day, and her appetite improved. The next week I resumed the use of iron and the galvanic treatment, under which she rapidly recovered, had no headaches, could walk a great deal, and sleep without narcotics. Her next period came, for the first time in her life, without pain. She could go out daily during the menstruation, and felt quite well. She remained one month longer under my observation, and left New York for her home in perfect health.

In treating such inveterate cases of neuralgia we have to bear in mind the probable complication with the morphia habit. Generally the opinion prevails that with the cure of the headache or other suffering the necessity for administering morphia would cease, which, however, always proves incorrect; and in the case above related, the patient confessed later, that, even with the removal of the headache and dysmenorrhœa, she would have been unable to live without morphia, had it been left to her. In such cases, after ameliorating the general health, and modifying to a certain degree the severity of the neuralgic attacks, I discontinue abruptly the administration of morphia, and temporarily substitute for it some other palliative. In the above related case, the small, contracted pulse, the pallor of the skin, and the cold extremities, suggested the use of a remedy producing a contrary effect, and as nitrite of amyl had already proved unsuccessful, I selected the hyoscyamine; and should this have failed, I intended to try pylocarpine, which I have found useful under similar circumstances.

As already mentioned, the morphia habit most frequently accompanies inveterate neuralgias. I have had, however, several cases of neuralgia with ether habit, and some, more recently, with a habit of chloral.

Mrs. B. was placed under my treatment by her husband, a distinguished physician, in January, 1873. She was about forty-three years old, and mother of several healthy children. She had suffered for many years from severe headaches, which would not be controlled by any other remedy but inhalation of ether, which, therefore, had to be resorted to in every attack to alleviate the pain. Small quantities were at first sufficient, but soon the attacks recurred more frequently, lasted longer, and made it necessary to gradually increase the doses of ether until it became large enough to produce complete anæsthesia. I was called to see the patient during one of her attacks, and found her in a complete coma, with the face flushed. As soon as consciousness began to return she called for more ether, and grasped at the paper cone, pressing it to her mouth and nose until complete coma ensued. This was continually repeated during twenty-four hours, and even during several days. While the attack lasted the patient ate scarcely anything, and it generally took some time before she returned to her normal state. Under the galvanic treatment the attacks became less frequent and more manageable; but I explained to her husband that, unless the ether habit were given up, a radical cure would be impossible. Last year she had typhoid fever of a severe type, her life being in danger for several weeks. She, however, entirely recovered, and is now in excellent health, and perfectly free from neuralgia. No doubt the prolonged acute illness wrought a favorable change and was instrumental in her losing the ether habit.

Very frequently, persons suffering from severe neuralgias acquire the habit of alcoholic stimulants, which presents itself in two different forms. In cases where the attacks appear at long intervals, the patients intoxicate themselves to unconsciousness at the beginning of the attack, and for several days continue in that condition by taking more stimulants each time they arouse from it, and during the attack scarcely accept any food. They gradually recover, and remain healthy, perfectly abstaining from drink, until the next attack. This form may continue for years, until death is caused by pneumonia, cirrhosis of the liver, fatty degeneration of the heart, Bright's disease, or, still oftener, cerebral apoplexy induced by the degenerated cerebral blood-vessels. However, if the neuralgic attacks do not occur frequently, such patients may recuperate almost entirely during the intervals; but often, even if the neuralgic attacks entirely disappear in course of time, the habit of periodical intoxication remains and brings the ultimate fatal result.

As far as my experience goes, periodical inebriety is generally developed by two morbid conditions, viz., periodical attacks of severe neuralgia, and periodical melancholia, and although these exciting causes may ultimately cease, the inebriety remains permanently. In periodical melancholia there is every reason to admit an anæmic condition of the brain, at least of certain regions, caused by a spasmodic contraction of the blood-vessels.* The effect of alcohol counteracts it by producing a paralytic dilatation of the blood-vessels, thus temporarily relieving the morbid state induced by the vaso-motor spasm. Very probably similar conditions exist during the neuralgic attack.

The other form of alcoholic habit consists in the chronic poisoning of the system by the frequent or constant use of small doses. Its effect is often more deleterious than even in the first form; it undermines the constitution, constantly increases the severity of the attacks, and invariably leads to the incurability of the neuralgia.

Mrs. N., wife of a clergyman, thirty-eight years old, and formerly healthy, has been suffering for years with violent headaches. These attacks, which first appeared occasionally, soon became more frequent and more severe, and necessitated the use of large doses of morphia to produce complete narcotism. The pain was deeply seated in the back of the head and also behind the eyes, and often so intense that, to deaden it, she would strike her head against the wall. The after-effects of the morphia were exceedingly unpleasant, causing for several weeks a complete loss of appetite, of sleep, and strength, when a new attack would come on and leave the patient utterly prostrated. During the last years she scarcely had any intervals between the attacks, and ate almost nothing, and it was therefore often necessary to give her small doses of alcoholic stimulants to prevent fainting and collapse, which several times lasted so long

* Neftel: Ueber periodische Melancholie, Centralbl. f. med. Wiss. 1875, No. 22; Med. Rec., Aug. 14, 1875.

as to threaten her life. I saw her for the first time January 31, 1872. She was greatly emaciated, the skin pale with a yellowish tint, especially the conjunctiva; the pulse small, with irregular intermissions; the respiration slow; the abdomen sunken in; the liver of very small size; the spleen enlarged. She was subject to looseness of the bowels and sore throat. Her hearing was much impaired; she could not hear a whisper or the ticking of a watch, and besides, had tinnitus aurium—singing and roaring. The examination with the galvanic current showed hyperæsthesia of the auditory nerve, with reversion of formula and paradox reaction of the unarmed ear. Under the influence of the cathode the noises ceased.

This patient was supported by small doses of sherry, brandy, or whiskey, as even the idea of food was sickening to her, and she had to make great efforts to swallow the smallest amount of anything. Being of a high moral character, she took the stimulants with repugnancy, to sustain life, at the recommendation of her physicians, in quantities of half a wineglass or more, and, though very often, yet with not the slightest intoxicating effect.

Neither the patient, nor her husband, nor even the attending physicians suspected that these small doses of alcohol could be injurious or produce the constitutional effects of chronic alcoholismus. But though the single doses were small and insufficient to cause intoxication, yet the quantity taken in twenty-four hours was very considerable, and the amount administered during the years of suffering was certainly enormous. In this case the alcohol was still more injurious, as it was taken with little food, and very often on an empty stomach. There was every reason to assume here a considerable degree of cirrhosis of the liver, of fatty degeneration of the heart, and an atrophic condition of the nervous centres.

The described cases selected from a large number of similar ones, show that severe neuralgic affections often become complicated with a morbid habit of morphia, ether, chloral, alcohol, etc. Accordingly, great discretion is required in prescribing narcotics as palliatives in chronic neuralgias, and in case of necessity frequent changes have to be made, never allowing the same narcotic to be taken for any length of time. Even if the pain can be entirely controlled by some narcotics, constant efforts must be made to discontinue entirely their use by curing the neuralgia with some other means. This is especially to be borne in mind in cases of alcoholic habit, and I find it absolutely necessary to insist that such patients abandon altogether the use of alcoholic stimulants, which always leads to a fatal result.

As in all other branches of practical medicine, the success in the treatment of neuralgias greatly depends upon the exactness of the diagnosis. By the latter, however, is not meant only the finding of a technical name, or even the determining of the affected nerves or nerve-centres, but also the detecting of all other constitutional and local peculiarities in each individual case. For instance, in severe neuralgic affections it is easy to diagnosticate a general anæmic condition, which, however, may be the result of various causes, and not always indicate the use of iron, quinine, etc. Where anæmia depends upon some affection of the digestive organs (chronic gastric catarrh, etc.), no amount of iron will do any good as long as the patient is unable to digest the necessary quantity of food. Again, where anæmia is caused by the derangement of the organs which prepare the blood (not the least important among which are the bones—medulla ossium), even a large amount of well-digested food cannot correct the abnormal condition of the blood; and every practitioner has met with persons who have a good appetite and digestion, but nevertheless remain thin and bloodless.

The success of the cure therefore depends entirely on the exact diagnosis of the nature of the affection and its etiology, of which the following case, recently under my observation, affords an excellent illustration.

Mrs. S., a lady of about 46 years, consulted me Oct. 1, 1878. She is of a strong constitution, very well built, but for years has been suffering from abdominal pains, which at times become quite unbearable. For the last four years she has been unable to walk, partly from general debility, and also at the advice of her physicians, in order to avoid increasing the pain or calling forth an attack. Last year she was treated during five months by a distinguished physician and clinicist of this city for an assumed ulcer of the bowels, but no improvement followed. Then the pains were ascribed to a uterine trouble, but a prolonged local treatment gave no relief. A careful examination of the patient, made by me, revealed no affection of internal organs; the urine, however, showed traces of lead, and she then gave me for chemical analysis a cosmetic she was in the habit of using. I found that it contained over 90 grains of lead in the fluid ounce. It was evident that she had been suffering from lead-colic, and consequently all the methods of treatment employed previous to my diagnosis were useless, to say the least.

The galvanic current is the most efficient agent in the treatment of neuralgias; but here more than anywhere else, success depends entirely upon the method employed; an improper method may often prove altogether useless or even injurious, as for instance in the following case:

Mrs. D., 33 years old, suffered for more than fifteen years from most excruciating pains (like tooth-ache) in the left thumb. This pain interfered with her sleep and occupations, and rendered her emaciated, anæmic, and almost cachectic-looking. She was treated by most eminent physicians, but unsuccessfully, and was at last advised to have the (in appearance healthy) thumb amputated. Dr. Brown-Séquard, however, dissuaded her from having it done, as he considered it very doubtful if the operation would effect a cure. At the advice of Dr. Mussey, of Cincinnati, the patient consulted me May 15, 1873, and frankly said she expected no benefit from the galvanic treatment, having tried it three times before at the hands of competent specialists, and having always found the neuralgic pain aggravated by electricity. Notwithstanding the unfavorable prognosis, she was entirely relieved by me from pain in the course of one month's treatment with the galvanic current, left New York June 18th, and has never had a relapse.

The beneficial effect of the galvanic current in neuralgias is especially apparent in sciatica; even the intensest and most inveterate forms often yielding in a short time to the galvanic treatment.

The illustrations would be too numerous to be given in this paper, but I may add that the polar method, and the skilful use of the rheostat as an accessory current, will often be found of great value in the treatment of intractable neuralgias, especially of sciatica.

Opium Habit and Amyl Nitrite.—Dr. Leyman (*Boston Medical and Surgical Journal*) has successfully used *amyl nitrite* in insomnia consequent upon suddenly discontinuing the opium habit. Two or three whiffs, the *flushing of the face being the criterion*, were usually sufficient, being followed by refreshing sleep.

FOUR CASES OF EXSECTION OF THE HIP-JOINT,

WITH REMARKS,

By CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

In the May number of the *New York Medical Journal* for 1877, I published seven cases of exsection of the hip-joint. The following is a continuation of the series:

Case VIII.—Florence M., aged 5 years, was admitted into St. Mary's Free Hospital for Children, June 3, 1876, suffering from hip-joint disease in the second stage. But little account of her previous or family history could be obtained. Patient was put to bed, and absolute rest given to the joint.

In September an abscess was discovered on the anterior aspect of the thigh, just below Poupart's ligament; this was opened, and considerable pus, containing oil-globules, evacuated. The joint was carefully examined while the patient was under ether, but no roughness could be detected. The abscess continued to discharge, and in February a small piece of bone came away. Crepitus could now be detected. Appetite poor. Temperature high in the morning (102°), coming down to 99° in the evening. Discharge free and healthy. Some vomiting.

Feb. 12.—Joint excised. Section was made below trochanter major. The compact tissue at this point was of normal thickness and hardness. The trochanter major was almost detached from the shaft. About one-half of the head had disappeared, and there were loose pieces of bone in joint. Acetabulum perforated. The wound was closed, except opposite the acetabulum, into which a drainage tube was inserted, and the limb bandaged, so as to bring the parts intimately together, a space being left for the drainage-tube.

Feb. 17.—Since operation the temperature has been normal. The wound almost closed.

Feb. 24.—For the past two days patient has been in a semi-unconscious state. Can be roused. Pupils dilated and sluggish. Abdomen retracted. No albumen or casts in urine.

Feb. 29.—Patient gradually failed, and to-day died.

Post-mortem: Body much emaciated. On opening the skull the meninges were found congested. The sulci were filled with a semi-opaque gelatinous material which glued them together. At the base this material was more abundant. Small granular bodies were found along the course of the vessels, and the choroid plexus was studded with them.

The parts about the hip-joint look well. There was a small abscess cavity between the femur and the tendons of the adductor muscles.

Case IX.—Josephine G., 7 years of age, was admitted into St. Mary's, Feb. 19, 1876, with disease of the right hip-joint of some duration. Family history bad. She is a sister of Amanda G. (Case IV.); her father died of phthisis. She has a fair skin, light hair. A brace was applied, and she was about the hospital, seeming quite comfortable. She rested well at night. In Jan., 1877, there was found an elastic swelling over the trochanter major. On aspirating, it was found to contain a light straw-colored fluid, resembling synovia, or the contents of a bursa.

Feb. 16.—The swelling has greatly increased, and about ℥iv. of purulent matter was removed with the aspirator.

Feb. 23.—Patient to-day etherized, an opening made just behind the trochanter major, and about ℥viij. of pus evacuated. The cavity of the abscess was found to be very extensive, and to run up behind the trochanter towards the joint. The movements of the joint were smooth. A small piece of bone was found in the abscess.

March 20.—Since last date there has been considerable pain on pressure over the femur, more marked above the middle third, followed later by swelling, and an abscess (periosteal), which was opened at about the middle of the thigh. Crepitus could be detected on abducting the limb, when fully extended. Patient was losing ground. The liver was slightly enlarged. The joint was to-day excised. Section was made above the trochanter minor. The head of the bone was denuded and carious, as well as the upper border of the acetabulum; the ileum above and continuous with it was also diseased. The bone at the point of section was diseased, but on account of the condition of the patient it was not deemed safe to attempt any more. On microscopic examination of the cut section, the cancellous tissue was found filled with pus and oil-globules (osteo-myelitis).

Dec. 14.—Patient's general condition improved after the operation in all respects. The amount of discharge diminished, although it never entirely ceased. She was up and about with a long splint, walking some distance without any inconvenience. The liver continued to enlarge.

In January, 1878, another abscess was opened on the outer aspect of the thigh.

March 7.—To-day she was seized with intense pain in her stomach.

March 8.—T. 104°; pulse 160. When seen this A.M. she was vomiting; face pinched, and she complained of pain in her abdomen, which is tender on pressure, and tympanitic. Ordered morphia every hour.

9 P.M.—T. 102°; pulse 130; respiration 36; is sleeping.

March 9.—Patient continued to fail, and died this morning.

Post-mortem.—Abdomen: On opening the abdomen the intestines were found to be perfectly white, as though they had been bleached, and on first inspection there did not seem to be any effusion; but on close examination the omentum and intestines were found to be covered with a creamy substance; but they were not glued together. There was considerable turbid serum in the peritoneal cavity. There was no perforation.

Liver greatly enlarged.

Kidneys enlarged and flabby; their surface irregular.

Femur did not present anything abnormal. The periosteum seemed to be healthy, and firmly attached to the bone. There was caries about the acetabulum, but not very extensive. There was also considerable bony growth on the ilium.

Case X.—Frances M., aged eight years, was admitted into St. Mary's Hospital, July 14, 1877, suffering from hip-joint disease in the third stage. Her brothers and sisters are healthy, as well as her parents. Three years ago she had scarlet fever, followed by an abscess in left breast. Five months ago patient began to walk lame. This difficulty in going about has gradually increased, so that for the past six weeks she has not been able to walk. During the last four weeks she has had starting pains at night, and has lost much flesh. For the past week there has been considerable swelling of the thigh. Patient is pale, rather thin, and not a healthy-looking child. Has disease of the right hip-joint, with a large abscess on the outer and

anterior aspect of the thigh. There is marked crepitus in the joint.

Shortly after admission the abscess was aspirated, and in August was freely opened.

Sept. 18.—As the patient seemed to be losing ground, the joint was excised. The upper rim of the acetabulum was deeply eroded. The head of the bone was diseased; the cartilage was completely detached, except at one point, and simply covers the head like a cap. The bone under it showed marked signs of osteitis. Section was made above the trochanter minor. At this point the bone was healthy. Wound united, except opposite the acetabulum. Drainage tube inserted, and limb bandaged.

By the middle of October the wound had closed, except a small sinus, from which there was a slight discharge. Later, as there seemed to be some retention of pus, the sinus was dilated, and it was then found that the shaft of the femur coming in contact with the upper border of the rim of the acetabulum did not allow a free exit for the pus. The rim was also slightly carious. This was scraped, so as to allow a drainage-tube to be inserted. In May the tube was discontinued, and the sinus soon closed.

Patient was discharged October ——, with the wound sound; no sinus. She can flex, extend, abduct and adduct, and rotate the limb. Shortening, three-quarters of an inch.

Case XI.—James F., aged five years, was admitted into St. Mary's Hospital, October 24, 1877, suffering from hip-joint disease in the third stage.

His parents are healthy. He became lame when two years of age, and seemingly recovered. After a time he again became suddenly lame.

In January, 1875, an abscess formed. At time of admission there was a profuse discharge from several openings about the hip-joint, and in the upper part of the thigh. He was much debilitated from the constant discharge.

No albumen; no enlargement of the liver.

Dec. 7, 1877.—He was etherized, and the joint excised. All the tissues were separated from the trochanter major, and the head had almost entirely disappeared. The shaft below the trochanter was so soft that a probe can readily be thrust into it. The periosteum was easily detached. Section was made at about the union of the middle with the upper third. The bone at the point presented the same softened condition. A second section was made a little lower down, but only to find the bone diseased. On one side the compact tissue seemed to be more invaded by this softening process than on the other, where the bone seems harder. The bone about the acetabulum was extensively diseased.

Dec. 14.—Discharge much lessened. Patient's appetite has improved, and he has gained in flesh.

March 26, 1878.—Patient continued in fair condition for some time; then he began gradually to fail, and to-day died of pure exhaustion. For some time back the limb has been getting stiffer, and there has evidently been considerable reproduction of bone.

Post-mortem.—There is found to be a reproduction of bone from the point of section just above the middle of the thigh to the acetabulum, over three inches. There is extensive disease about the ilium.

Remarks.—I desire, in connection with the above cases, to draw attention to the cause of death in disease of hip-joint; (a) *tubercular meningitis;* (b) *amyloid degeneration;* (c) *exhaustion.*

Case VIII. died from tubercular meningitis.

Case IX. died directly from peritonitis, secondary to amyloid degeneration.

Case X. recovered, and case XI. died from pure exhaustion.

Tubercular meningitis is not an unusual cause of death in hip-joint disease. It may occur at any time in the course of the joint trouble. Thus, a few years ago I lost a child, five years of age, suffering from coxalgia in the second stage from this complication. That this form of meningitis is one of the manifestations of the tubercular diathesis is too well recognized to require any further notice, except that its frequent occurrence in the course of hip-joint disease points strongly to a constitutional element in the causation of the latter trouble.

Case IX. died directly from peritonitis, secondary to amyloid degeneration of the liver and kidneys—a recognized termination of the latter disease. (Grainger-Stewart, Dickinson, Bartels.)

In this connection I desire to draw attention to Case XI., where death was due to pure exhaustion. The enlargement of the liver in the first case (IX.) came on several months after the formation of an abscess, while in the latter case (XI.), although the patient had suffered for *three years* from profuse suppuration, yet the abdominal organs were not affected, the patient dying from *pure asthenia.* If amyloid degeneration is due to suppuration alone, why should it appear so early in one case, and not at all in the other? I have a patient at present under my care where the enlargement of the liver was coincident with the appearance of a large abscess.

If we look a little further into the histories of these patients, we find: that Case IX. was a sistert o Amanda G., Case IV.; they both had fair skin, light hair, and that peculiar cast of features that belongs to the strumous diathesis, so called; and that their father died of PHTHISIS. The patient in whom the enlargement of the liver was coincident with the formation of an abscess, lost his father from *acute phthisis,* whereas Case XI. gives a *good family* history as far as relates to tubercular tendencies.

Bartels, in his article on amyloid degeneration, in Ziemssen's Cyclopædia, Vol. XV., page 498, states that amyloid degeneration of the kidney "*is invariably the local manifestation of a general constitutional disease;*" and again on page 499, "as such constitutional predisposing anomalies, I may specify scrofula, chronic tuberculosis, inveterate and hereditary syphilis." Amyloid degeneration has followed suppuration in Cases II., V., VI., VII., IX., and XII.; in all of these cases there was an hereditary history of tuberculosis. In Case I., although the disease had lasted *six years,* and there had been profuse and long-continued suppuration, no change in the liver and kidneys could be discovered, and he made a perfect recovery after the diseased bone had been removed. There was *no* history of tubercular disease in the family. Case X. gave a good family history, and made a good recovery. Case III. died from phthisis; I regret that I have no record of the state of the liver. Gibney, in his paper on "The Strumous Element in the Etiology of Joint-Disease" (*New York Medical Journal,* July and August, 1877), comes to the same conclusion. Dickinson, in his work on "The Pathology and Treatment of Albuminuria," London, 1868, page 172, states "that depurative disease of the kidney is not necessarily connected with the tubercular or any constitutional taint;" yet of the five cases reported in illustration of the disease, in three the disease followed suppuration in connection with bone trouble in patient giving a *tubercular family* history, and two gave a history of syphilis.

Grainger-Stewart, "Bright's Disease," 191, etc., re-

ports six cases connected with the tubercular diathesis. From a careful study of my own cases I am forced to the conclusion that the tubercular diathesis is a, if not the, predisposing cause of amyloid degeneration in suppurative disease of the hip-joint. A review of fatal cases of joint disease, scattered throughout the medical journals, confirm me in the opinion above expressed. I do not wish to be misunderstood. I do not state that hip-joint disease in patients of a tubercular diathesis is *always* followed by amyloid degeneration, but I desire to express the opinion that it is seldom found except in those of the above diathesis. It would seem, then, that the question of the treatment of suppurative coxalgia cannot be separated from a consideration of the possibility, nay more the probability of the occurrence of amyloid degeneration in patients of a tubercular diathesis.

Medical writers speak very discouragingly of the treatment of amyloid degeneration. Thus Stewart, in reply to the question, "Is it ever recovered from?" states: "No case is on record in which so happily an event has occurred, but I have seen several in which the symptoms were well marked, and yet signal improvement took place," page 179.

It is true that these changes may occur independent of any suppuration or disease of bone, yet they are too often seen to follow chronic purulent discharge to permit us to ignore it as an exciting cause of this very serious complication.

If we are correct in ascribing death, in the majority of cases of suppurative coxalgia, to amyloid degeneration, the question naturally arises, Can we do anything to prevent its occurrence? We cannot cure it.

Murchison, in his work on "Diseases of the Liver," makes the following statement in speaking of the preventive treatment: "First and foremost, it is always advisible to arrest as early as possible copious suppuration from any part of the body, and in particular from diseased bone;" all other writers upon the subject express the same views. The preventive treatment of amyloid degeneration, then, is to reduce or stop suppuration as soon as possible.

It is claimed by those who decry operative interference in cases of disorganization of the joint, with carious and necrotic bone, that the results of excision in these cases are not as good as after strictly mechanical treatment; that the rate of mortality is due to excessive suppuration incident to the operation, and that exsection does not stop the disease.

In order to form sound conclusions in regard to the treatment of hip-joint disease, mechanical or operative, a practical knowledge of *first*, mechanical treatment, *secondly*, of exsection, is requisite.

For how can one criticise an operation of which he has no practical knowledge?

Exsection does not as a rule increase the amount of suppuration, at least I have not found it so in an experience with twelves cases. In all, there has been a decided improvement in the general condition of these patients; they have slept better, their appetite has improved, they have increased in flesh, and they have had a better color. It is true that this improvement has not, in some cases, lasted for more than a few months. If, then, there has been a marked amelioration in their condition, lasting for months, on what fair grounds can the operation be said to have been the cause of, or to have hastened a fatal issue? The truth would seem to be, that these patients die not *from*, but in *spite* of the operation.

Another objection is, that the operation does not stop the disease. Does mechanical treatment? It is claimed that the results of excision in these cases are not as good as after strictly mechanical treatment. In order to compare the results of any two modes of treatment, one of the first requisites is the comparison of the termination in similar cases. I have been unable to find, after a careful search through the medical journals, any account of the result of mechanical treatment in cases where there was carious or necrotic bone in the joint. It is true that at a recent meeting of the Surgical Section of the Academy of Medicine (MEDICAL RECORD, April 13, 1878), Dr. C. F. Taylor presented some statistics; and as they seem to be the only ones available, I desire to refer to them. He says: "Out of 94 cases of morbus coxarius, three had died from the disease, a rate of 3⅛ per cent. In a certain sense these were *selected*, because he would not undertake the treatment of any case unless he could have it under his exclusive control. The representation, therefore, is *better than it would have been* had it been based upon *all cases* which *applied* for treatment. . . . . Twenty-five had abscesses, either extra- or intra-articular; of the suppurating cases, two, or eight per cent., died. . . . . Dr. Taylor remarked that he had no right to report, except upon the cases which remained under observation."* The questions naturally arise, How many cases passed from under his control? What was their condition when they ceased attendance, and what has been their termination? Of the twenty-five suppurating cases, how many had *intra-capsular* abscess, and in how many did there exist carious or necrotic bone; and of those passing from under his control, how many belonged to the latter class? It would also be interesting to know what the expression, "in a certain sense these were selected," means, and what class of cases were excluded. If those gentlemen who are advocates of a strictly mechanical treatment will give us some reliable statistics of the results in advanced stages of hip-joint disease, so that the facts can be known, much will be done to advance our knowledge of the treatment of hip-joint disease, and the claim that better results are obtained in these cases by mechanical treatment than by operation, will rest on broader ground than a mere statement, unsupported by scientific evidence.

I cannot see that the gentleman's statistics afford us any aid. In a paper read before the Journal Association by Dr. C. F. Taylor, February 1, 1878, he asks the following question: "Could exsection be depended upon, and could any determinate result be expected by its performance?" With equal force the question might be asked, Could strictly mechanical treatment be depended upon, and could any determinate result be expected from its continuance after the joint has become disorganized and carious, or necrotic bone is present?

The real question seems to be, does exsection improve the general condition of the patient; if it does, it certainly gives him a better chance to recover, and on this hinges the advisability or not advisability of operative procedure. If suppuration from carious bone is profuse, notwithstanding mechanical treatment, we must expect in a certain class of cases, changes in the abdominal viscera; and when it can be proved that mechanical treatment is able to cure amyloid degeneration, then, and only then, can the question of exsection be dismissed from our consideration.

The reproduction of bone after exsection is sometimes astonishing, even in those cases that terminate fatally. Thus in Case XI. there was fully three inches

* The italics my own.

of bone reproduced, notwithstanding the debilitated condition of the patient.

A reference to the case of Rosa Mullen, reported by Dr. Sayre, is also one in point as illustrating the fact that a patient may recover after exsection, yet die from amyloid degeneration long after. The question raised by Dr. Taylor in regard to this case, "What right had a surgeon to assume such wonderful reproductive power would not take place under other forms of treatment as well as after excision?" is not to the point unless it can be demonstrated that the tendency is towards recovery in extensive disorganization of joint with the presence of grave bone lesions. The fatal termination in this case was not from hip-joint disease, but from constitutional trouble. I have seen osteophytes about a diseased joint, but I am not aware of any specimen illustrating any marked reproduction of bone or any significant attempt at repair while there was present carious bone in the joint, and I do not think that an inspection of the pathological museum will show one. As long as there is dead bone in a joint, so long will suppuration continue, and until the irritation of its presence ceases, reproduction cannot go on. As soon as there is dead bone in a joint the articulation as a joint is destroyed, and the general rules of surgery are as applicable to it as dead bone in any other situation.

Quite recently my friend Dr. Gibney showed me a specimen removed from a boy sixteen years of age, with a tubercular family history, who had had disease of the hip-joint, and had recovered with anchylosis, but who had died from amyloid degeneration. The head and neck have disappeared, and the shaft of the femur was fused with the acetabulum. A word in regard to recovery from amyloid degeneration. In a former paper I expressed the opinion that James C., Case VI., who had an enlarged liver, and albumen in his urine before the operation, would not recover. It is now two years and a half since the operation; the liver is now reduced to almost its normal dimensions, he has regained a good color, and his general condition is excellent. I am not prepared to claim that this is a case of recovery, but shall watch it with interest. There has certainly been a marked improvement.

In the *Lancet* for November 2, 1878, a case is reported by Mr. Gay, where the liver diminished to its normal size, and albumen disappeared from the urine, after secondary amputation at the hip-joint subsequent to exsection.

To recapitulate, cases I., II., VI., and X. are alive. Nos. I. and X. have recovered. No. VI. has recovered as far as the joint is concerned, and the liver has almost assumed its normal dimensions; still I mark it doubtful.

No. II. is alive, but with no prospects of recovery.
No. III. died from phthisis.
No. IV. from heart clot?
No. V. amyloid degeneration.
No. VII. " "
No. VIII. tubercular meningitis.
No. IX. amyloid degeneration.
No. XI. from pure exhaustion.

Not any of the fatal cases, except No. IV., died from causes connected with the operation, nor do I think that the fatal termination was in any way hastened by it. In those that recovered I do not think, from the histories of these patients and the course of the disease while under my care, that a cure was probable without exsection.

The following conclusions may be drawn from the above:

1st. That the causes of death directly traceable to coxalgia are amyloid degeneration, tubercular meningitis, and exhaustion.

2d. That there is an intimate connection between the tubercular diatheses and amyloid degeneration, so that those of this predisposition seem peculiarly liable to this complication subsequent to suppuration in connection with diseased bone.

3d. That exsection does not, as a rule, increase the amount of suppuration.

4th. That death is not as a rule due to, or hastened by exsection.

5th. That the removal of carious or necrotic bone from the hip-joint is followed by an improvement in general condition of the patient, and that the chances of his recovery are improved thereby.

6th. That in patients of a tubercular diathesis, the question of excision should earlier be taken into consideration than in those of a non-tubercular diathesis.

7th. That repair in a joint after excision is no proof of the non-existence of amyloid degeneration.

REMOVAL OF A PESSARY FIRMLY IMBEDDED IN MUCOUS AND FIBROUS TISSUE.

By FRANKLIN B. SMITH, M.D.,

FREDERICK, MD.

It is an every-day occurrence for a practitioner to be called upon for the relief of uterine trouble, to apply a pessary and leave the patient go her way without caution or instruction, maybe never to be seen by the same medical man again. One of the injurious consequences of this practice is well exemplified in the following case which lately came under my charge, and which for its practical teachings deserves publication:

M. D., a woman ætat. 35 years, was compelled to stop work on November 1, 1878. On the 20th, being called, she was found suffering with the following symptoms: dragging and sense of weight in the pelvis, inability to do hard work or to walk any distance without provoking colicky pains in the abdomen, difficulty and pain in micturition. On examination the uterus was found prolapsed, the os appearing at the vulva, while encircling the uterine globe opposite the pubes appeared a firm, hard, constricting band of mucous membrane projecting from the vaginal walls. This was the case anteriorly and on the sides, but upon being traced back ended in the free surface of a retroversion pessary. The uterus was now with some difficulty pushed above this and a more careful examination made. The whole anterior and lateral portions of the pessary were covered with or embedded in the mucous membrane of the vagina, and resisted any movement.

As the pessary had moved somewhat from its original position, had lost its use and prevented any treatment for the prolapse so long as it remained, I decided to remove it.

On November 21st I cut off the posterior portion of the pessary, by means of a pair of bone-pliers, in the vain hope of being able then to withdraw the remainder by simple traction on one of its ends, but in this I was disappointed. The pessary opposite the pubes was deeply and firmly embedded, not in mucous, but in fibrous tissue, nor could it be moved the slightest particle. A bivalve speculum was then introduced, and in it I held a laryngoscopic mirror; then with a lancet, the fleam of which was at a right angle to the

handle and stem, cut directly down upon the pessary, rotating the interspace between the valves as I cut. In this way I succeeded in exposing the pessary throughout its whole extent, except just at the pubes, where the anterior portion of the pessary (an Albert Smith's) was so deeply embedded as to resist all the force I could in this disadvantageous manner bring to bear upon it. The patient being tired and worried out with the pain, and considerable time having been expended, I desisted, determining to resume under ether the following day.

On the 22d, with the assistance of Dr. Charles Smith, after the patient had been anæsthetized, while one of the ends of the portion remaining was firmly held by means of a sequestrum forceps, I carried the lancet guarded by my fingers into the vagina until it rested upon the resisting bands. These, after some difficulty, were severed, when, after some traction, the anterior portion was removed. The instrument proved to be an Albert Smith hard rubber retroversion pessary, remodelled by lengthening at the expense of its width. It was the anterior portion which had first caused the ulceration and subsequent embedment. The only history obtained was that four years ago she had suffered with "womb disease," had applied to a physician for relief, had been relieved, and had suffered but very little from that time until lately. The patient did well, and subsequently was treated for the prolapse.

A FILARIA IN THE EYE OF A HORSE.

By CHARLES J. KIPP., M.D.,

NEWARK, N. J.

About a year ago I was requested by Veterinary Surgeon Lawrenz, of this city, to see with him a horse which, as he said, had a live worm in one of its eyes. I hastened to the place, and, to my great astonishment, found the case as represented.

The horse was estimated to be over twelve years of age, and was in good condition. From the owner I learned that he had first noticed a slight inflammation of the eye about six weeks before. Two weeks later a "film" came over the eye, and, on closer examination, a white worm, about an inch long, was seen wriggling about in the eye. Since then no marked change has occurred.

On examination, the eye was found to be intolerant of light, and apparently blind. The ocular conjunctiva was injected, and the entire cornea was so hazy that the texture of the iris could not be made out. The epithelial layer of the cornea was perfectly smooth and regular. The pupil was contracted and inactive; but no posterior synechiæ could be made out. The anterior chamber was very deep, and in the aqueous, which was slightly turbid, was seen a white, cylindrical worm, apparently about seventy-five (75) millimetres in length, and of about the diameter of a violin-string. The worm was in constant violent motion. The tension of the eye was apparently somewhat increased, as compared with the sound one.

I proposed to make at once a paracentesis of the anterior chamber, for the purpose of removing the worm, but, at the request of the owner of the horse, deferred the operation for several days. At the next visit the eye was found to be still in the condition described. I then, in the presence of a number of physicians, made, with a straight, lance-shaped knife, an incision about four millimetres in length in the outer half of the cornea, about midway between the centre and the periphery, and, on withdrawing the knife, the aqueous, and with it the worm, escaped from the eye. I ordered the horse to be kept in a dark stable; applications of cold to the lids, and instillations of a one per cent. solution of sulphate of atropia. Of the subsequent history of the case I have no personal knowledge, as I have not seen the horse since; but from Dr. Lawrenz, who saw the animal again some six months ago, for the first time since the operation, I have recently learned that the owner disregarded our advice, and drove the horse some twelve miles immediately after the operation; and that, although no inflammatory reaction followed the operation, the eye has gradually become atrophic.

The worm was placed in a warm, weak solution of salt, and kept alive for nearly twelve hours; since then it has been preserved in weak alcohol. It was my intention to submit the parasite to an examination by an expert in helminthology, immediately; but the matter was entirely forgotten till a few weeks ago, when I saw an article on "Filaria in the Eye," by Dr. Charles S. Turnbull, published in the *Philadelphia Medical and Surgical Reporter*, October 26, 1878. Since then Prof. J. C. Dalton, of the College of Physicians and Surgeons, New York, has had the kindness to examine the worm, and his report is as follows: "The parasitic worm you left with me for examination is cylindrical in form, and of a white color. It is 65 millimetres long, and 0.3 millimetre in diameter. The head is bluntly rounded; mouth terminal, with several small surrounding tuberosities. The specimen is a male, with the tail obtusely conical and twisted in two and one-half spiral turns. There is one very long copulatory spicule. I could not distinguish a second one, nor any membranous expansion or envelopes about the generative organs. With these two last exceptions, the characters of the worm are those belonging to the genus Filaria; but I cannot determine its species, and doubt whether it has been fully described in any of the standard works on herminthology."

The parasite was exhibited by me to the members of the New York Ophthalmological Society, at the meeting in January, 1878.

Filaria in the anterior chamber of the horse are very frequently seen in some parts of India (Macnamara, *Diseases of the Eye*, 3d Ed., London, 1876, p. 356); and Sichel, *père*, has seen many cases of the kind in Europe (*Compte-Rendu du Congrès Ophthalmolog. de Bruxelles, par Warlemont*, Paris, 1858, p. 155).

In this country this disease appears to be of rare occurrence, judging from the very small number of cases on record. Dr. Turnbull, in the paper already referred to, says that he made a diligent search through the American journals, and found the record of but a single case; to this he adds one observed by Dr. Corbyn, and another recently seen by himself.

In only one of these three cases (Dr. Corbyn's) was the worm removed from the eye; but no anatomical description of the parasite has been placed on record.

With regard to the manner in which the worm enters the eye various theories have been advanced, the most plausible of which assumes that the ova, found in the stagnant waters of India, and doubtless also in this country, find their way into the animal's body with the water he drinks, and are then carried with the blood into the eye.

Macnamara (*Op. cit.*, p. 356) says that entozoa in this situation excite violent inflammation of the iris and cornea, and probably abscess of the eyeball, unless they are allowed to escape from the eye. This may usually be effected without difficulty by puncturing the cornea with a narrow-bladed knife, which

is rotated edgeways as it is withdrawn from the eye, allowing the aqueous to escape with a gush, and with it the entozoa.

In the human eye a similar parasite has been seen twice in India by Macnamara (*Indian Annals of Medical Science*, No. XVI., p. 405), and a few doubtful cases are recorded by Quadri, Mauthner, and Davaine. No case of the kind has been published in this country.

Reports of Hospitals.

BELLEVUE HOSPITAL.

PNEUMONIA: NOTES ON MORTALITY, TREATMENT, ETC.

Hospital pneumonias form a class of diseases especially liable to elude statistics regarding fatality and treatment. At least this is the case in the city hospitals of New York. The patients affected are of many nationalities and have been subjected to an infinite variety of, in general, bad hygienic conditions. Probably Bellevue receives about as bad a set of cases as any institution. The histories of these cases, however, furnish a good many interesting facts, especially as it is of acknowledged importance to study the local characters of acute diseases.

The majority of the patients brought to Bellevue trace their pneumonia to exposure. Sometimes this has been the sequel of alcoholic excesses; but it is not often so, and there must be innumerable debauches under unhygienic conditions that are not followed by this disease. If there is one well-determined cause, it is immersion. Every interne can relate the histories of patients who have fallen or thrown themselves into the water, have been fished out, brought to the hospital, and next day have developed pneumonia. It is difficult to say how the "germ" of the infectious disease pneumonia happens to get into the system so patly with the immersion. It is asserted that the pneumonia is catarrhal in these cases, or that the system was already infected, or perhaps the germ is amphibious.

It is not rare for hospital pneumonias to be complicated; but, as complications themselves, they are not often seen. Out of nearly a hundred cases occurring within the past two and a half years, twenty-two had complications, while six more were double pneumonias, and eleven were eminently alcoholic in cause and character.

At least three times as many males as females are admitted with the disease. Among 96, only 27 were females. The patients come in on the third or fourth day of their sickness, and the majority of them are between the ages of 30 and 50 years.

In regard to the mortality of the patients with pneumonia, and its causes, the histories of hospital-cases are of considerable interest. It is well known that the percentage of mortality varies in different years, in different climates and epidemics, and possibly under different treatments. There are statistics giving death rates of only .03 or .05 per cent. The more common ones run up to from .14 to .21 per cent. Bellevue Hospital presents the exceptional pathological advantages of a death-rate somewhat larger still, amongst over a hundred cases that occurred within the past two and a half years.

Of the 29 who died, 8 had complicating diseases, while 5 were alcoholic cases, and 3 were double pneumonias. This would perhaps account for the mortality in sixteen. On the other hand, of those who recovered, 16 had complications, many of them quite severe. Besides these there were 6 alcoholic cases and 3 double pneumonias which recovered, making in all 25 patients who were brought through conditions especially serious.

The mortality was somewhat greater among the males than the females, being three or four per cent. more for the former.

The date of admission was about the same for those who recovered and those who died. This appears somewhat strange, as the patients nearly all keep at work or lie neglected and exposed till the disease is well on them, and this is generally reckoned a factor in the death-rate.

The largest number of cases (32) were between the ages of 30 and 40; the largest number of recoveries were also in that decade. The largest mortality was between the years 40 and 50. Ten of the deaths occurred then, which is nearly twice as many as in any other decade.

The pneumonias were located most frequently in the left lower lobe. There were 27 there to 19 in the right lower lobe. On the other hand, there were 10 in the right apex to 3 in the left. The sufficiently well-established fact that apex-pneumonias are the most dangerous is confirmed here. Of 13 apex cases, 5 died; of 48 where the disease was at the base, 12 died.

The great mortality at Bellevue is due largely to the character of the cases sent there. They are often persons saturated with alcohol, and prostrated with neglect. It could hardly be from the complications directly, for only two or three had such as have not been recovered from often. Neither could much be laid to the treatment, for it is not dangerously experimental, so that it is difficult not to refer some of the mortality to the malignancy of the disease. Patients come in trembling with alcohol, wandering in mind, with high fever, and, perhaps, pleurisy complicating, or with the pneumonia double; yet they get well. At other times, persons who have been strong and temperate, wilt down before the disease in forty-eight hours. There is something almost appalling in the way with which at times case after case is attacked and succumbs. The fever is not very high, the lung not extensively involved; it is impossible to suppose that the heat has paralyzed the heart; yet the heart does become paralyzed, œdema of the lung comes on, and death ensues.

On only one post-mortem is there a record of an antimortem clot in the right heart. In this case the thrombus was diagnosed, and death predicted twenty-four hours before its occurrence.

Ten years ago pneumonia was quite uniformly treated with carbonate of ammonia internally and an oil-silk jacket externally. The carbonate was given in doses of gr. v. every three hours, or sometimes gr. x. three times a day. The muriate was occasionally substituted. Gradually quinine came to be combined with the ammonia, while now quinine has quite taken its place in many wards. The quinine is given in doses of gr. x. three times a day, increased or diminished according to the fever. The oil-silk jacket is still continued, and if there is much pain in the side, a coat of iodine is ordered. This, with an absolutely recumbent posture, is all that is enjoined in many cases. Aconite has been used in five cases, of which one died. It is given in doses of ℥i. every hour, till some effect of the drug in relief of dyspnœa, fever, or production of sweating is produced.

In forty-four cases quinine was used with good results. The method of administration is varied. Besides the routine mentioned, it is given gr. i. every hour, or gr. v. every four hours, and often, as directed by the Juergesen, gr. xl., or gr. l., in one dose, then discontinuing it for a day or more. The antipyretic effect of quinine is not sufficiently marked to have made it clear which is the best way. Cold sponging has been employed with quinine. Of seven cases so treated, three died. The gradually cooled bath has been used, and at once given up.

Owing to the previous bad habits and bad condition of the patients, as well as to the frequent virulence of the disease, the treatment of many cases of pneumonia soon resolves itself into the treatment of exhaustion, œdema of the lungs, and a nearly moribund condition.

How to carry a patient through critical conditions of this kind, how much stimulus, and what kind, are matters that text-books do not give very definite accounts of, and experience has generally to become the teacher.

Many cases that come into the hospital have a record like the following: The patient is a tolerably strong man, in the third day of the fever. He has a temperature of 104°, respiration 50. His pulse is very good, and he feels pretty confortable. He is given milk and eggs, and gr. xv. of quinine. This is in the morning. In the afternoon he is weaker, his face is a little blue, he breathes faster. On listening to the lungs, moist râles, fine and coarse, are heard. He is beginning to have œdema. He is at once dry-cupped for fifteen or twenty minutes, during which time 150 cups are put on. The œdema has now disappeared. He is ordered ℥x. of tr. digitalis every three hours, and ℥ss. of whiskey every two hours, with milk and eggs. He continues better for some hours. Towards evening the œdema again shows itself. He is again cupped, and gr. x. ammon. carb. is ordered every two hours, alternating with the whiskey. Again the œdema clears up. In addition, a can of oxygen is ordered for the night, and the patient inhales it for fifteen minutes in every hour. This relieves his dyspnœa. But towards morning the cyanosis and œdema again appear. The cups are applied again, and the whiskey ordered, ℥ss. every hour, alternating with the ammonia, gr. x., every hour. By these measures he is carried through the night, and in the morning is easier. Nourishment in the form of milk is still kept up. He is not allowed to sleep continuously, for during sleep the œdema comes on. By such fighting as this, the greatest reliance being placed on whiskey, milk, and dry cups, a patient is occasionally brought through. If, on the following day, he is still worse, the resources in the way of stimulants are not exhausted. Other forms of ammonia are used. Hypodermic injections of camphor dissolved in sweet oil are given every three hours in four-grain doses. If the patient has persistent œdema and a full pulse, venesection is tried, and is invaluable when digitalis and cups no longer avail. The oxygen cannot be pushed too much, as it causes unconsciousness.

Hypodermic injections of ether to the amount of one or two drachms sometimes bring up the pulse. Teaspoonful doses of champagne every five minutes will help to tide a crisis. There is a limit to stimulation, of course. When ℥ss. of whiskey every half-hour has no effect the patient will die. There is no use in increasing the amount unless it is desired to preserve the stomach afterwards. In the case of a man to whom ℥ss. q. ½ h. was given for several hours, the stomach was found at the autopsy to be considerably hardened by the alcohol and to smell strongly of it.

In spite of all efforts, most of the cases in which œdema of the lungs occurs go on from bad to worse. The extremities become cold and wet with perspiration; hot bottles applied to them and to the breast, mustard to the epigastrium, accomplish only temporary good, the patient has long been stupid; he now loses consciousness, his breath is slow and labored, the air-passages are full of serum; gradually the respirations grow slower and slower, and finally stop. The patient dies. At the autopsy part of the lung will be found to have reached the stage of gray hepatization.

It will be seen that no new or specific treatment can be deduced from these cases. It has become a firmly rooted belief that quinine is a good thing to give, and in those so treated the mortality has been somewhat diminished. The class of patients is not one upon which cardiac sedatives can be fairly tried.

Progress of Medical Science.

Battey's Operation.—An unsuccessful case of this operation is reported by Dr. Prince, of Jacksonville, Ill. The procedure was proposed for the relief of hystero epilepsy, from which the patient had been suffering for eighteen months, and which was gradually destroying her mental balance. The girl was eighteen years of age, and was apparently healthy up to the inception of this trouble. The paroxysms could be partially or completely controlled by pressure of the hand in the iliac region, at first upon the left side, later upon the right. The operation was performed according to Battey's original plan, by an incision through the vagina. The ovaries were brought down without any difficulty, and their attachments divided by the galvano-cautery; no bleeding following. Immediately after the operation the patient was put sufficiently under the influence of opium to control the spasmodic manifestations. Next morning there was vomiting, which appeared again in the evening, this time of a spinach-green color; pulse 140, temp. 101½°; morphia continued. On the third day, temp. in axilla 106°, in rectum 108°; pulse 160; breathing stertorous; eyes divergent; unconscious. She died towards the end of the fourth day. At the autopsy only the abdomen and pelvis were examined. "There existed about an ounce of blood coagulum (without odor) in the pelvis. There were no indications of pus or false membrane, and no coloration as would occur from inflammation. The incision in the vagina had healed by first intention. The death was, therefore, neither by inflammation nor by poisoning, but probably by the exhaustion of a hystero-epileptic acmé."—*The Obstetric Gazette*, December, 1878.

The Use of the Midwifery Forceps.—In applying the forceps to the fœtal head above the brim, but little attention is ordinarily given to the manner of seizing it; most practitioners believing with Barnes that it makes, practically, but little difference to which diameter the instrument is applied. Dr. Whitehead, of Denver, however, maintains that in shortening of the conjugate diameter of the mother's pelvis, judiciously-timed compression of the bi-parietal diameter of the child's head will frequently obviate the necessity of resource to craniotomy; and, moreover, as compression of the oblique or occipito-frontal di-

ameter would only serve to increase the bi parietal, he urges the conclusion that the only safe use of the forceps for the child above the brim is in seizing and fixing the head until it engages. Much of the hard pulling so often required in cases of simple uterine inertia in normal pelves to draw the head through the brim, is largely due, he thinks, to the oblique seizure of the head. Especially should a powerful compressive instrument, such as Hodge's or Wallace's forceps, be used. He has always given the preference to Simpson's forceps. Reprinted from the *Transactions of the Colorado Medical Society*, 1878.

Analysis of One Thousand Consecutive Midwifery Cases. Dr. Thomas Newman publishes in *The Lancet* (December 14, 1878) an analysis of one thousand consecutive cases of child-birth, occurring in an agricultural district. Of the total number of children born (1013), 518 were males and 495 females. Twins occurred nine times; triplets twice. The breech presented in fourteen cases; the arm in two; the face and the feet, each in six; the head and one hand nine times. The placenta was adherent in eleven cases: two cases of hour-glass contraction speedily yielded to chloroform. Forceps were used thirty-three times, being rendered necessary in two cases (mother and daughter) by contraction of the brim; in five (primiparæ) by the large size of child; and in the rest by failure of expulsive pains when the head was at the outlet of the pelvis. In no case was there any excessive hemorrhage, which is attributed to the influence of ergot. This drug was given in drachm doses of the fresh powder, stirred up in warm tea, and has been administered in fully one-third of the cases. There was no death from purely puerperal causes. Rupture of the perineum occurred only to a slight extent, in no case requiring any other treatment than keeping the legs well together for a few days.

Hypodermic Injection for Piles.—Prof. Andrews, who first gave publicity to this method of treating piles, has requested, through the pages of the *Michigan Medical News*, the details of any evil results following its use. Communications should be addressed to Edmund Andrews, M.D., No. 6 Sixteenth Street, Chicago.

Chronic Cystitis.—A case of chronic cystitis, occurring seven years after an operation for lithotrity, is reported by W. F. Teevan, F.R.C.S., in which recovery was brought about by an exclusively milk diet. The patient took about six pints of milk a day, and at the end of a week he had lost all pain; the urine was quite clear, acid, sp. gr. 1020. A month later he still remained well, although an enlarged prostate compelled the use of a catheter twice a day.—*The Lancet*, Dec. 7, 1878.

Diseases of the Bronchial Glands.—Dr. Richard Quain has analyzed the records of sixty cases in which these glands were diseased, and has given an important contribution to their clinical and pathological history.

The pathological conditions to which they are liable, apart from tumors, are congestion, acute and chronic inflammation, tuberculous, scrofulous and syphilitic disease. Acute and chronic inflammation in rare cases leads to abscess opening into the bronchi or mediastinum. Chronic inflammation, which is rather common, leads generally to enlargement or calcareous degeneration.

Disease of the glands occurs oftener in females, and after the age of puberty. Besides the various cachexiæ, the exciting causes are the fevers, and inflammations of the structures which contain the afferent lymphatic vessels, bronchitis, pleurisy, and pneumonia. The enlarged glands pressing on the recurrent laryngeal may excite cough.

The symptoms, in order of frequency, are as follows: cough which is generally dry, pain felt near the fourth and fifth dorsal vertebræ, with tenderness on pressure, often accompanying it. Dyspnœa, sometimes equalling that of spasmodic asthma.

Dysphagia and hæmoptysis in one-sixth of the cases. The amount of blood varies, but is sometimes considerable. Expectoration of ordinary mucus was frequent; more rarely pus or calcareous particles were found in the sputa.

Aphonia and vomiting occurred in a few cases.

Congestion and puffiness of the face were noted. This, as well as the hæmoptysis, is caused by pressure on the venous trunks.

There is a position of least discomfort which each patient is apt to assume. Physical signs help in the diagnosis. Dulness in the interscapular region was present in forty-seven cases. Bronchial breathing, loud expiratory murmur and feeble breathing were each noted in about a dozen cases. Vocal resonance is sometimes increased.

The treatment has to be directed to the cause and the general condition. It is often very successful.—*British Med. Jour.*, December 14, 1878.

Vaginal Enterocele.—A very curious case of this kind has been reported by Dr. Hodgen to the St. Louis Medical Society. The patient, aged 40, mother of two children, was first observed in 1874 to have a tumor the size of a goose-egg on the left labium. It could be pushed back completely into the abdominal cavity, but returned when the patient stood up. It kept increasing in size until in four years an enormous, slightly pedunculated tumor, weighing sixty-four pounds, hung from the labium. It seemed to be composed of hypertrophied skin, of omentum, intestine, and the bladder. The patient died of pernicious malaria. On autopsy the hand could be easily passed from the pelvis into the hernial sac of the tumor. This sac contained a gallon of serum, considerable omentum, and part of the colon. The bladder formed part of the tumor, but was outside of the sac. The uterus was dragged over, but remained in the pelvis. The tumor had passed down by the left side of the vagina, nearer its anterior than posterior wall.—*St. Louis Med. and Surg. Journal*, Dec., 1878.

Progressive Muscular Atrophy without Central Lesion.—A very peculiar form of progressive muscular atrophy is reported in the Paris *Gazette Médicale*, Dec. 14, 1878. A woman, previously healthy, was suddenly taken with high fever and severe pains in her body and limbs. By the third day the extremities had perceptibly diminished in size. The muscular atrophy continued, but the pains grew less. At the end of ten weeks she was admitted to the Hotel Dieu. There was then marked atrophy of the lower limbs, forearms, and hands, notably the thenar and hypothenar eminences. There was paresis and loss of muscular contractility just in proportion to the muscular atrophy. There was no contractions, no loss of sensibility; rectum and bladder were normal. The patient died in two weeks from a complicating pneumonia. Autopsy revealed absolutely no lesion of the brain or cord. The muscles showed the usual degenerative changes. The disease was considered one of progressive muscular atrophy of peripheric origin. Its rapid course and simultaneous implication of many muscles separate it from the ordinary form.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 1, 1879.

A NATIONAL HEALTH BUREAU.

THE public mind has been so much exercised in regard to the necessity of some better means of protection against epidemics than at present exist, that the way has been prepared for the presentation in Congress of bills bearing upon the creation of National Bureaus of Health.

There are now before Congress three bills having the latter object in view. The first in the order of presentation was the one known as the Lamar bill; the next is the bill of Mr. Matthews; and lastly, that which is styled the Withers bill.

As preliminary to some general remarks upon the subject under consideration, it is eminently proper that the distinctive features of each bill should be presented.

Mr. Lamar's bill contemplates the establishment at the seat of Government of a department of health, the general design and duties of which shall be to acquire and diffuse among the people useful information on subjects connected with public health, to direct the establishment of efficient sanitary and quarantine systems, to supervise the Marine Hospital Service, and to organize and direct a corps of sanitary engineers competent to superintend all public works so far as their construction may affect public health. For the general enforcement of these regulations the appointment by the President of a Director-General of Health, with a salary of seven thousand five hundred dollars, is provided for. The duties of Director-General comprise those of the present Supervising Surgeon-General of the Marine Hospital Service, and the supervision, organization, and management of the quarantines of the United States as provided by the National Quarantine Act.

This, of course, provides for the abolition of the office of Supervising Surgeon-General, and the transference of all records of his department to the new bureau. The Director-General is expected to enforce necessary quarantine, and to carry into effect such rules and regulations as in his judgment will, with the least inconvenience to commerce and travel, prevent the spread of disease. He shall also select suitable localities for establishing quarantine stations, erect suitable temporary buildings for disinfection of passengers, baggage, cargoes, and other matters believed to convey the contagious principle of cholera, yellow fever, small-pox, and other epidemic diseases; and may enforce such transshipment of passengers, baggage, and cargoes as he may deem necessary, and shall assign a competent medical officer to each station. Provision is also made for the registration of births, deaths, marriages, etc.; the procuring of information relating to the climatic, meteorological, geological, and other conditions affecting public health; the employment of experts in special lines of investigation; of clerks and additional officers, and the transmission of a report to Congress.

There are some very commendable features in this bill; but the principal objection to it, and one which must necessarily be fatal to its passage, is the autocratic powers conferred upon the Director-General.

The bill of Senator Matthews is more comprehensive in its scope, more liberal in its aim, and more consistent with the general principles of republican government. Instead of the one-man power advocated in the previous bill, the one under consideration provides for the creation of a bureau of seven members, with a Directing Surgeon-General, who shall be the executive officer. The bureau is to be under the control of the Treasury Department. The office of Supervising Surgeon-General is to be abolished, and the duties of said officer are to be transferred to the bureau. It gives to this bureau power over all quarantine regulations, and makes the Consular service a part of its machinery. It may require Consuls in foreign ports to make weekly reports as to the health of the city or country to which they are accredited, and places special restrictions upon vessels leaving Havana and other West India ports at certain seasons of the year.

All such vessels bound for any port in the United States shall be required to obtain from a medical officer, serving in the office of the consul of the United States at that port, to be appointed by the President for that purpose, his certificate, setting forth that he has personally inspected said vessel, her cargo, crew, and passengers; that the rules and regulations prescribed by the Bureau of Health in respect thereto have been fully complied with; and that, in his opinion, the said vessel may be allowed to enter a port of the United States and land its cargo and passengers, without danger to the health thereof on account of any infectious disease; and without such certificate of said medical officer, it shall not be lawful for any such vessel to enter any port of the United States.

It also gives power to the bureau to appoint a

health officer at each port of entry, who is to have the charge and enforcement of all sanitary and quarantine regulations. For this service the bill contemplates the appointment, in a great measure, of the present marine hospital corps. The Director General, with the advice and consent of the Board of Health, is required to correspond and co-operate with similar local officers, boards, and authorities acting under laws of the States in sanitary measures, to prevent the introduction and spread of contagious and infectious diseases from foreign countries into the United States, and from one State into any other State, by means of commercial intercourse, and upon and along the lines of inter-State trade and travel; and to that end it shall be lawful for said Board of Health and Director-General of Health to confer upon any such local officer or board within or near the locality where his or its authority is exercised, power also to enforce the provisions of this act, and any rules and regulations made in pursuance thereof.

The Withers bill is based upon a recommendation of the Executive and Advisory Committees of the American Public Health Association. It merely provides for the drawing of a plan for a National Public Health Association, to be submitted to Congress at its next session. The Public Health Association is apparently fearful of hasty legislation, and can seemingly suggest no better line of action. Its main objection urged against any present legislation is that there is a great diversity of opinion regarding many matters bearing upon general or local quarantine, and the inference would seem to be that in the course of the coming year all the difficult questions will be sufficiently settled. It is further urged in the memorandum of the Health Association referred to, that the selection of a committee for this purpose is of the greatest importance, and that consequently it should be left to the members of the National Academy of Sciences. Probably as an improvement on this suggestion, the said Academy was designated in the bill as the proper body to take the matter in hand. We cannot believe that the Public Health Association is willing to father the bill as it now stands—to leave sanitary matters to a body of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects. If this Academy is qualified to decide on matters of quarantine, and is the only competent tribunal to which sanitary questions must be submitted—the only authority to be trusted in proposing a plan for a National Public Health organization—it is time the profession should make a new departure and call the so-called expert sanitarians to account. The utter absurdity of the proposition is of itself sufficient to make the defeat of the Withers bill a foregone conclusion.

The suggestion of the Health Association, that the present state of sanitary science forbids present legislation, is a piece of presumption for which there does not seem to be any adequate excuse, except perhaps to explain why nothing was accomplished at the recent meeting in Richmond, Va. We believe that the Public Health Association is mistaken in regard to the necessity of delay. The public and the profession have lost patience in waiting for some reasonable suggestions from the Association, and have been so disappointed with the results of the last annual meeting of that body, that they are willing to look beyond the provisions of the Withers bill for help.

The President, in his message, urged immediate action, and in so doing he gave expression to the general wish of the people. The profession stands ready to endorse his propositions, and enter heartily into any scheme which may bring about the desired result. At present there is no better way of doing this than in supporting the Matthews bill. Therein are contained all the good features of the Lamar bill, with none of the objections which obtain in the bestowal of autocratic powers. Therein provisions are made for the distribution of authority and responsibility in the Board, for the enforcement of intelligent quarantine in ports of exit and entry, for reasonable local quarantine upon rivers and railroads, and for the creation of local health boards in times of emergency. There is one thing, however, which would increase the scope and efficiency of the bill—and that is the incorporation of a provision for an international inquiry into the causes for yellow fever at the places of endémicité.

THE PLAGUE IN RUSSIA.

Recent advices state that a disease, resembling in general character and in high rate of mortality the Plague, has made its way upward toward the North and East of Russia, from the Caspian Sea along the Volga. It appears to have been imported by a regiment of Cossack soldiers, the germs of the disease having been contained in some booty from Turkey, which was carefully concealed from the quarantine inspector. When the disease first appeared it was looked upon as a severe form of typhus, and it was not until the characteristic lesions showed themselves that grave suspicions were aroused and that the government saw fit to take some steps to stay its progress. From all accounts it appears to be spreading beyond the control of the local authorities. The terror of the inhabitants of some of the towns infected is so great that large numbers have fled, scattering the disease throughout wide districts of country. The mortality has reached ninety per cent., and the type of the disease is peculiarly malignant. There does not seem to be much doubt that the latter condition is due to the late war and the attendant results of general privation and famine. What adds a peculiar gravity to the situation is the fact that Russia has a very imperfect idea

of quarantine, and is in the anomalous and distressing condition of being poorly supplied with physicians.

In attempting to read the future by the past, there is hardly any danger of the disease spreading beyond the confines of the southern and eastern portions of Russia, unless perhaps the impoverished condition of the people may make an exception to the general rule. The probability of the latter, however, causes some anxiety in South-eastern Europe, to which place the disease would spread, if anywhere, beyond Asia. During the last decades, after a long immunity, unmistakable epidemics of the disease, though of limited extent, have appeared in isolated regions of Africa and Asia. In 1858 and 1859 such an epidemic occurred among the Arabs in North Africa, another in 1857 in Mesopotamia, and one in 1871 in Persian Kurdistan. Since then until the present the disease seems to have died out. Its revival again in Asia proves that history is about to repeat itself. The distinctive characters of the disease are chill, great prostration, high fever of a typhoid type, dizziness, nausea, vomiting, accelerated respiration, and in time suppuration of the inguinal glands or the glands upon the neck or in the axilla. Death usually takes place between the third and fifth days. When there are lung complications and bloody expectoration, the term "black death" has been used to designate the disease. By most authorities the bubo-plague and black death are supposed to be one disease showing itself in different forms.

THE STATE MEDICAL SOCIETY.

THE next meeting of the State Society, which is to commence at Albany, on Tuesday, February 4th, at 10 A.M., promises to be one of extraordinary interest. Judging from the number of papers which are promised, the scientific element of the meeting will predominate over that of any other previous session within our remembrance. In the abundance and variety of the good papers which are offered, there is but one concern, and that is, the lack of time for their presentation. This condition of things would seem to indicate the necessity of utilizing all the time possible for the discussion of strictly scientific subjects. Still the legislative element of the meeting must not be ignored. The best way to meet all the necessary requirements is to have the ethical questions worked up by committees, the same being reported upon at the proper time.

COLOR BLINDNESS.

A COMMITTEE of the Legislature of Massachusetts has been formed for the purpose of ascertaining whether or not legislation was necessary in regard to the employment in responsible positions upon railroads of persons who were color-blind. Dr. Joy Jeffries, of Boston, who has given the subject much study, was called upon for an opinion. To prevent accidents from color-blindness in persons in the employ of railroads, he proposed form instead of color for signals in the day-time, and some substitute for color at night. Of the colors he stated that red was the most intense, and green the next. With color-blind persons the intensity of the colored light was the sole guide. Any color that looks dark seems red; a brighter color seems green, and a color still brighter appears white. Test a color-blind engineer, and he will, in many cases, tell the signals at once, for if he sees a dim light he knows that means "stop;" when it is brighter he feels safe, and when it is still brighter he knows he is safe.

In the course of his testimony, Dr. Jeffries, although he himself has never tested railroad employees for achromatopsia, gives some interesting statistics bearing upon the subject, leaving us to the natural inference that the defect may be equally prevalent in our own country, and among those who drive our locomotives, and those who care for the switches.

In Switzerland 171 railroad employees out of 7,953 were found to be color-blind, and discharged from the service of the companies on that account. On the Paris and Lyons Railroad 10 per cent. were found to be color-blind. In Holland 152 railroad employees out of 2,300 were found to be color-blind. Examinations in this respect are now being made in Sweden, Norway, Italy, the Austrian navy, Bavaria, Prussia, Denmark, and France. We cannot see why such examples should not be followed in our own country, and the presence of Daltonism be made a legal disqualification for any responsible position on railways. From present indications Massachusetts will probably take the initiative in the matter.

THE ELECTRIC LIGHT IN THE COAL MINES.

DR. O'BRIEN, of Scranton, Pa., in a letter, which we publish in another column, makes a suggestion regarding the use of the electric light in the coal mines, and gives good reasons for believing that the mortality among colliers would be decreased thereby. The statistics which he gives us are certainly suggestive of some remedy. The great obstacle to the introduction of the electric light is its cost; but the end to be attained certainly justifies the means to be employed. Aside from the increased illumination which can thus be given, there is no danger of the light being blown out by explosions of powder.

RAPID ANÆSTHESIA.—Give the patient the etherinhaler, let him hold it to his face with one hand and elevate the other. In a few minutes the arm will drop, and there will be from thirty to fifty seconds of unconsciousness, during which minor operations of surgery, reduction of dislocations, etc., can be performed. The right moment must be seized, for, if the patient returns to consciousness, full etherization will then have to be employed.—*Phil. Med. Times.*

Reports of Societies.

CHICAGO MEDICAL SOCIETY.

Regular Meeting, Dec. 16, 1878.

DR. E. INGALS, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

DR. JOHN BARTLETT read a paper entitled

A SUGGESTION AS TO THE MANAGEMENT OF PLACENTA PRÆVIA.

THE practice now generally in vogue consisted of two methods: 1st. The use of the tampon for the triple purpose of gaining time, arresting hemorrhage, and exciting uterine contractions, and delivering by the feet as soon as the os is sufficiently dilated. 2d. Rupturing the membranes for the double purpose of arresting bleeding and exciting contractions, tamponing with the same view as in the first plan, and awaiting the progress of the labor, unless hemorrhage should be excessive, in which case the placenta is to be separated from the os as far as the fingers may reach, and the case left further to nature. After this last step it is claimed all hemorrhage will cease.

For these methods, involving the use of the tampon and separation of the placenta from the cervix, he proposed as a substitute the following practice: perforate the presenting placenta by means of an instrument resembling the thread-shield used by seamstresses, provided with a serrated edge resting upon and extending slightly beyond the nail of the index finger. Close the opening with a finger-point until, with the other hand, a Hobbs's dilator—shaped like a truncated cone, with the base upward, and having a diameter, when dilated, as great as that of the hand—is slipped into the perforation. The dilator is then quickly expanded to the size of the perforation, to prevent escape of the liquor amnii; then by gentle hydrostatic pressure the os uteri, and with it the opening in the placenta, is dilated to the size of the hand, slight traction meanwhile upon the staff of the dilator being made to secure the pressure of the placenta against the cervix, and preventing unnecessary detachment and hemorrhage. Dilatation being complete, as shown by the register of the dilator, tension is diminished by lowering the fountain, the hand is passed up beside the dilator, which is gradually collapsed and withdrawn, the hand taking its place in the cavity of the cervix. The operator then grasps the feet and delivers at once.

He objected to the methods in vogue for several reasons: the tampon was unreliable for the arrest of hemorrhage; it would frequently dam up the blood so that the latter would cause a needless separation of the placenta. The tampon had been known to be retained so long that putrefaction of the blood had taken place, and septicæmia had resulted. If the tampon is removed frequently to note the progress of dilatation, quantities of blood are lost at each removal. The use of laminaria tents for dilating the os was unsatisfactory from the difficulty in keeping them in position; and Barnes's rubber-bag dilators tended to expand in the direction of least resistance, and might easily force the placenta off from the cervix to an unnecessary degree. Puncture of the membranes was objectionable, because it involved a loss of the liquor amnii, and thereby made turning difficult—an operation often required, and required promptly.

He thought Dr. Barnes was wrong in his explanation of the period of comparative cessation of hemorrhage when the cervix was fully dilated. It was not the intermittent action of the uterus in contraction that stopped the flow, but the altered relation of the vessels to the uterine tissue. This altered relation was due to the change from a state of contraction to one of dilatation of the cervix. The stretching of the cervix compresses the vessels necessarily and arrests hemorrhage. In placenta previa hemorrhage was liable to occur until the cervix was fully dilated. To await this dilatation, even with the use of the tampon, was, he thought, attended with danger. The dilatation was delayed by the attachment of the placenta acting as an unyielding splint upon the cervix; the detachment of this splint was a step in aid of the dilatation. But it was important this detachment should be as little as possible, for the prospect of the child being born alive was lessened in proportion to the extent of the separation of the placenta before delivery.

The method of practice he had set forth embodied the principle of the tampon with certainty and efficiency. No removal of the plug during the dilating process was necessary—the register of Hobbs's dilator giving positive evidence when dilatation was complete. This dilator, used in the way suggested, would lead to only such a degree of detachment of the placenta as was indispensable; moreover, it would, by its shape and position in the cervix and the rent in the placenta, prevent, to the fullest degree possible, hemorrhage. The dilator of Dr. Hobbs having the rubber bag covered with silk, it was impossible for it to expand excessively in the direction of least resistance; it must expand equably; the form of the silk bag determined the shape of the apparatus when fully dilated, therefore there could be no treacherous tearing off of the placenta to an uncalled-for extent.

Dr. Bartlett then reviewed the objections to his method. Perforation had been to a large extent abandoned, because of difficulty in executing it, danger to the child, and danger to the umbilical vessels. He thought these objections applied to perforation by the old plan, but hardly to that suggested in his paper. The cord could hardly ever be injured, as it must ever be to one side of the centre of the os. "As it is very unlikely that the main root of a tree will be found to correspond with a cavity in the ground in which it has grown, so it is highly improbable that the main attachment of the ovum would be found to be over a cavity in its bed of implantation." He referred to the interesting analogical fact that in the ungulates, as the mare and sow, there is what anatomists call a diffuse placenta, a closed sac of umbilical vessels entirely surrounding the young, and perforation of the placenta is essential to birth.

The paper was discussed by Drs. T. D. Fitch, Paoli, Ingals, and others.

Regular Meeting, Jan. 6, 1879.

THE PRESIDENT, DR. E. INGALS, IN THE CHAIR.

BRONCHITIS.

DR. F. H. DAVIS read a brief paper on the diagnosis and treatment of bronchitis. After giving a succinct description of the different forms of bronchitis, he referred to the treatment that had been most useful in his hands. The common mixture of chloride of ammonium with morphia and tartarized antimony he regarded as the most uniformly efficient in acute cases. He had used atomized fluids to a considerable extent; solution of bromide of potassium and

paregoric were valuable, also chloride of ammonium solution. Where there was a good deal of bronchial irritation in chronic cases he had found great benefit from the use of balsamic preparations by inhalation from hot water. A good combination was that of a drachm of the oil of Scotch pine in three ounces of camphorated tincture of opium, with a little magnesia. A teaspoonful of the mixture should be added to a pint of hot water, the steam from which may be inhaled from any extemporized inhaler—a teapot or tea-kettle will do.

In chronic cases, complicated with emphysema, and where breathing was difficult, he had prescribed with good effect the exhalations into rarefied air. This measure, practised frequently and regularly, would give any such patient great comfort and amelioration of condition.

HAS THE MAMMALIAN RED BLOOD-CORPUSCLE A NUCLEUS?

Dr. W. T. Belfield read a paper on the above subject, in which he described certain experiments he had made to settle the question. Prof. Boettcher had claimed to have discovered a nucleus in the red corpuscles by first bleaching the latter with a saturated solution of corrosive sublimate in alcohol, then immersing them for a time in alcohol, and finally staining them with carmine, the centre of many of the corpuscles showing a spot more highly stained than the rest of the mass, which was the nucleus. Dr. Stowell, of Ann Arbor, had recently confirmed Boettcher's results. Dr. Belfield had repeated the experiment of Boettcher without developing any of the more highly-stained spots, and while he could not doubt the German professor had discovered them, he questioned whether they were not the result of the action of the reagents used, and therefore an artificial product.

The corrosive sublimate and alcohol coagulate albumen, and contract the tissue of the corpuscles, as shown by the micrometer. It was quite possible that some coagulate mass of a corpuscle should become more thoroughly stained with the carmine. If, however, the corpuscle had a nucleus that would take staining material in greater degree than the body of the cell, after the whole had been bleached, this ought to follow quite as readily if the bleaching were done with other agents than the one named, and with less danger of error, if the bleaching material were free from the objection of coagulating or contracting the corpuscle. Accordingly he had used acetic acid, sulphurous acid, chlorine, and a freezing temperature (none of which caused contraction or coagulation) variously for bleaching, and both aniline and carmine for staining. He had examined, with the aid of these means, reptilian blood and the blood of three mammalian species, including human blood; he had gone over the experiments several times, and while he had invariably found the nuclei in the reptilian blood more deeply stained than the body of the cell, the mammalian blood in no instance showed any trace of anything that could possibly be regarded as a nucleus. In every instance all the red corpuscles were stained uniformly in every part.

He had exhibited his specimens, prepared in the manner described, to a number of microscopists (Mr. Atwood, and Drs. Johnson, Curtis, Lyman, and Bridge), who were asked, before being informed of the manner of preparation of the respective slides, or the kind of blood they contained, if they could discover anything in any of them that resembled a nucleus. Each pronounced positively in favor of a nucleus for the blood that was reptilian, but no one had been able to see such an appearance in any of the specimens of mammalian blood.

He believed that so far a nucleus had not been demonstrated to exist in the red corpuscle of man. He combated the argument that the homology of tissue required the existence of a nucleus in the blood-corpuscles. No nuclei had been found in the enamel rods or the superficial cutaneous epithelium. The function of these parts was purely mechanical, and no nucleus was needed. The office of the red corpuscles was quite as thoroughly mechanical or chemical. The corpuscles were carriers of oxygen, a purely chemical performance, certainly not a vital one, and nuclei were unnecessary.

NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, December 26, 1878.

Dr. Salvatore Caro, Chairman.

PENDULOUS UTERUS AT FULL TERM OF UTERO-GESTATION—COMPLETE ANTEVERSION AND ANTEFLEXION.

Dr. Isaac E. Taylor presented an illustration, and gave a history of an interesting case in which there was complete anteversion and anteflexion of the uterus at the full term of utero-gestation—the uterus covered with the pendulous abdominal walls, and hanging between the thighs.

The woman was 22 years of age, and multiparous. When labor began the uterus was lifted as high as possible and supported by a strap over the woman's shoulders. Labor progressed so that the head descended partly through the superior strait, where it remained for about two hours. It was then thought advisable to resort to artificial delivery. The pelvis was a generally contracted one, and it was evident that the uterine forces would not be sufficient to deliver the child. The forceps were applied without difficulty, but nearly an hour was required to deliver the head of the child. It then required about an hour and a half to deliver the shoulders of the child.

Dr. Taylor had published a report of a similar case in the *Medical Times* in the year 1845.

In that instance, as in the latter, he learned the value of understanding not only the rotation of the head in the pelvis, but also of the shoulders in the superior strait. After laboring about an hour unsuccessfully he reversed the order, and instead of attempting to first deliver the posterior shoulder he applied the blunt hook upon the anterior shoulder and gradually brought it to the right side, and in the course of fifteen minutes complete rotation had been accomplished, and the woman was delivered of a living child, which weighed 11¼ pounds.

In this case the uterus was more perfectly pendulous than in the first case reported, and, therefore, was unique in Dr. Taylor's experience.

THE USE OF THE OBSTETRIC FORCEPS IN GENERALLY CONTRACTED PELVES.

In such cases the method of delivery by the use of the forceps was regarded as important. Not only in such cases, but forceps delivery was applicable in those in which the child was large; for, in using the forceps we should not only take into consideration the head of the child, but also its body.

In cases of generally contracted pelvis, as soon as he found that the head did not progress at all, or only slightly so, he resorted to forceps delivery.

THE USE OF THE OBSTETRIC FORCEPS IN CASES IN WHICH THERE ARE ONLY FEEBLE UTERINE CONTRACTIONS.

With reference to the use of the forceps in cases in which there were feeble uterine contractions, Dr. Taylor reported the following case:

A woman with ample pelvis was taken in labor with her first child. The head was perfectly free in the pelvic cavity, but it did not descend. The doctor decided that it was necessary to deliver by forceps, and for one of the following reasons: the head did not descend, either because of the size of the shoulders or the body, or because of the shortness of the cord, or because of an inert uterus. Which one of those three causes for delay in descent of the head was operating could not be determined. The cervix was dilated to about the size of a half-dollar, was natural to the touch, and the membranes had been ruptured about an hour and a half. The woman was put moderately under the influence of chloroform, the forceps applied, and after the head was delivered it required about three-fourths of an hour to deliver the shoulders.

Dr. Taylor thought, that without the forceps the shoulders would not have descended sufficiently far to permit of delivery of the body of the child.

He had found that in some cases the forceps became an absolute necessity for the three reasons mentioned.

APPLICATION OF THE OBSTETRIC FORCEPS ANTERO-POSTERIORLY.

With reference to the use of forceps in this class of cases (failure of a small head to descend in an ample pelvis) he had been forcibly impressed with a remark made by Dr. Hamilton, of Falkirk, that the forceps were applied "antero-posteriorly." Dr. Taylor had no hesitation in denying that Dr. Hamilton or any one else applied the forceps antero-posteriorly, because the head entered the pelvic cavity obliquely, descended obliquely, and the forceps could be applied only obliquely, either indirectly or positively so.

Dr. Taylor did not wish to be understood as urging the use of forceps when nature was apparently perfectly competent to accomplish delivery of the child with safety to the mother, but that there were many cases in which the instruments could be used early and with the greatest possible advantage for the purpose of making the head adapt itself properly to the cervix.

LACERATION OF THE CERVIX, AND THE USE OF THE OBSTETRIC FORCEPS.

He had yet to see harm done to the cervix uteri by a just and proper application of the forceps, and did not hesitate to record his experience against the frequent occurrence of laceration by their use, which was so rampant in the mind of the profession.

He believed that paralysis of the cervix was frequently mistaken for laceration, the same as paralysis of the perineum was frequently mistaken for laceration when the cases were examined soon after labor was completed.

Dr. Taylor's method of examination, for laceration of the cervix, was by the use of the speculum about half an hour after delivery, believing ocular demonstration to be much more reliable than touch by the finger. The speculum had shown to him that laceration did not occur to the extent supposed when the forceps were properly applied.

In cases in which the os was dilated until it became thin like a piece of paper, and the delicate cord-like Colica's muscle could be easily felt in the edge of the cervix, it was better to introduce exceedingly thin-bladed forceps, and hold the head in proper contact with cervix, than to attempt to facilitate delivery by handling the cervix with the fingers.

CHLOROFORM AS A UTERINE STIMULANT.

In some cases in which it had seemed that the forceps were necessary in order to complete delivery, the moderate influence of chloroform had been sufficient to stimulate the uterus to action, and render the use of the instruments unnecessary. In all cases, therefore, of proposed forceps delivery, he first carefully watched the stimulating effect produced upon the uterus by mild anæsthesia from chloroform, and if that proved insufficient he then proceeded to deliver with the instruments.

REMOVAL OF THE FORCEPS BEFORE DELIVERY OF THE HEAD OF THE CHILD.

The delivery of the head of the child should never be completed with the forceps. When the head had been brought down against the perineum the instruments should be removed and the delivery completed after the manner of a natural labor. In that manner he avoided producing laceration of the perineum.

NON-SUPPORT OF THE PERINEUM.

Again, he never supported the perineum, but when the head had reached the floor of the pelvis and the perineum had become well distended, with two fingers placed behind the anus between it and the coccyx, he pushed the head out *in the interval between pains*, when all the parts were at rest.

POSTERIOR PRESENTATION—OBSTETRIC FORCEPS INOPERATIVE.

Dr. Taylor also stated that in cases of posterior presentation, when the head had been brought down upon the floor of the pelvis, the forceps became inoperative, and therefore it was improper to attempt to complete the delivery by means of the instruments. In such cases, if delivery was completed by the forceps, there

was very great risk that serious injury would be done to the soft parts of the mother.

Dr. Caro remarked that, since he had adopted Dr. Taylor's method of delivery by forceps, he had not seen a laceration of the perineum in his own practice. Formerly he had produced laceration of the perineum, and had noticed that the rupture occurred just at the time the head was delivered and the forceps were pressing in their largest diameter.

A case was reported as an illustration: He was called in consultation to see a primiparous woman, æt. 26. There was general anasarca. The physician in attendance had not tested the urine. She was taken with eclampsia. The physician unfortunately thought she would be delivered by nature, and allowed her to remain in a continued series of convulsions from nine o'clock in the evening until seven o'clock on the following morning. Dr. Caro found the woman blind, unconscious, and extremely restless. Chloroform was administered to quiet the woman, the forceps were applied, and, much to the surprise of the gentlemen who were present, were removed before the head was allowed to pass the perineum. The perineum was saved, the life of the child was saved, and the woman regained her consciousness as soon as delivery of the child and the placenta was completed.

With reference to laceration of the cervix, he admitted that a certain degree of physiological laceration occurred during labor, but he thought that none of the specialists had had any of his patients to treat for laceration of the cervix.

With reference to its prevention he believed that by the use of chloral or morphine during labor, the os could be so softened that the child would be born, in most cases, without the occurrence of such accident. If laceration did occur, he thought the after-treatment had much to do with its rapid healing. His plan, in all cases of confinement, was to permit the woman, three or four hours after delivery of the child, to get up and sit upon the chamber for the purpose of emptying out the clots lying upon the floor of the vagina. In addition, keeping the parts thoroughly cleansed by the use of disinfectant injections, was very important. If those measures were thoroughly carried out he thought they would greatly facilitate cicatrization if any laceration was present.

Dr. Griswold referred to a case in which profuse hemorrhage occurred from a slightly lacerated perineum. Three veins were involved in the rupture. A ligature was applied to each of the bleeding vessels, after which the laceration was closed.

Dr. Caro referred to hot water as a measure for arresting such hemorrhage, even though as profuse as represented in Dr. Griswold's case.

Dr. Griswold also referred to a case of obstinate vomiting in pregnancy, and asked for counsel with reference to treatment. The woman was a multipara, about one month advanced in pregnancy; had almost constant vomiting and almost constant diarrhœa; and, although not hysterical, had from six to twelve tonic spasms daily. The diarrhœa had interfered with rectal alimentation. She had not suffered in like manner in her former pregnancies. The spasms, occasionally, were of considerable duration—one having lasted for two hours. They were epileptiform in character. She had not suffered previously from epilepsy. She was forewarned of their occurrence by severe pain in the region of the heart, extending up to the left shoulder, down the arm, and when it reached the hand she was seized with the spasm. The anginal character of the symptoms suggested nitrite of amyl, but it had been tried without benefit. The uterus was somewhat anteverted, and was apparently in a soft, natural condition.

Dr. Taylor suggested tr. iodine or tr. nux vomica, in doses of five drops; also that a pessary might be used which would support the uterus until the advance in pregnancy raised it out of the pelvis. He thought there was no special danger of producing uterine contractions by such treatment. He also suggested dilatation of the os as recommended by a physician of Manchester.

Dr. Caro suggested hypodermic injections of hydrate of chloral in ten-grain doses.

Dr. F. V. White referred to a case in which delivery was retarded by a short cord. The cord was finally cut and the child was born very quickly. He believed that if the forceps had been applied in accordance with Dr. Taylor's suggestion, the woman would have been saved from a great amount of suffering.

METHOD OF PREVENTING AFTER-PAINS.

He also referred to a case seen with the late Dr. Peaslee, who said that he always remained by the bedside of the woman for at least one hour after the birth of the child; that the last thing he did before leaving her was to carefully remove all clots from the os; and that by so doing, as a rule, he prevented the occurrence of after-pains.

After the nomination of officers the Section adjourned.

SECTION IN SURGERY.

Stated Meeting, December 20, 1878.

Dr. Stephen Smith, Chairman.

THE PRESENT AND THE PROSPECTIVE STATE OF ELECTROLYSIS IN SURGERY.

Dr. G. M. Beard in a concise manner presented the following points relating to the above subject:

The definition which he gave to the term electrolysis was "decomposition by means of electricity," and it was to be distinguished from the galvano-cautery when, not electricity, but the heat produced by electricity was used.

In all external applications of electricity there was liable to be more or less electrolytic action, but the term electrolysis was applied especially to applications of electricity where needles were used. Practically it was limited to that, although in a strict scientific sense there was more or less electrolytic action in very many of our electrical applications when needles were not used.

The *rationale* of the electrolytic action was complex. Three elements entered into its action:

1. The actual chemical changes which took place at the positive and the negative poles.

2. The stimulating effect upon the secreting and absorbing surfaces; and

3. The effect upon nutrition through the nerves.

Dr. Beard then spoke of the electrolytic treatment of several diseases:

First, of Nevi.—There were three varieties of nevi: 1. That raised above the skin; 2. That situated in the skin—the port-wine mark; and 3. That underneath the skin. He had obtained the best results from electrolytic treatment in the first variety, and second best in the third variety. In the first and third varieties, the results which he had obtained had usually been very satisfactory. Sometimes scars were produced, sometimes not, according to the size and the locality

of the tumor. He thought it better in these cases to have a repetition of operations with a feeble current and short applications, rather than produce scarring by the use of a strong current and long applications. Slight sloughing was not always a bad result. In some cases it was impossible to destroy the tumor without producing sloughing in a mild degree. In other cases there was no sloughing and no scar.

He had operated upon tumors of that kind on all parts of the face, in children varying in age from a few weeks up to three or four years, and was very much pleased with the average results. In some of those cases, ordinary treatment by injections of iron, by applications of collodion, and by cautery, had been unsuccessful. Full anæsthesia was used, and preferably that produced by chloroform, for two reasons:

1. Because it was the experience of the world that infants bore chloroform well; and

2. Because the electrical treatment was the best possible antidote to chloroform.

He had not seen any bad results produced by chloroform in any of these operations.

Second, of Cystics, benign and malignant, such as hydrocele, weeping sinew, etc.

The object was to excite the secreting and absorbing surfaces, and for that purpose the negative pole was preferable, and strong currents. He had known of hydrocele disappearing after a very brief application of the negative pole. In such cases there could not have been electrolysis, but the effect was due purely to the action upon the secreting surfaces.

Third, of Goitres and Exophthalmic Goitres.—Exophthalmic goitre was a nerve disease, and was usually treated by galvanism without needles. In some cases excellent results and permanent cures had been obtained.

Some varieties of goitre were perfectly cured by electrolysis. The negative pole was usually employed with the positive outside of the sponge, and without an anæsthetic.

Some of the goitres were one-half or two-thirds cured. In other cases, especially those of the fibro-cystic variety, extended treatment might be required to effect a cure.

In some cases he had used injections of fluid extract of ergot or sclerotinic acid, in doses of from five to twenty drops, in conjunction with electrolysis.

Fourth, of Epithelioma.—At this point Dr. Beard gave his philosophy of cancer. There existed in the person, *first*, an hereditary tendency to cancer. That tendency was developed by some local injury, such as a blow, etc.; but when first developed it was purely a local trouble, and infected the system secondarily.

The practical deduction from the philosophy was, that while the disease was yet local before the system had become infected, the method of electrolysis of the base of the tumor was efficacious. It was used upon the same principle as was the arsenic-paste treatment.

Fifth, of Cancer of other Varieties, Scirrhus.—In the majority of cases, electricity, in the way of electrolysis or external galvanism, relieved the pains of incurable cancers. In some cases there appeared to be an arrest of growth; in other cases there was a diminution in size, and in still others there was no apparent good effect.

Sixth, of Fibroids.—Fibroids of any kind were slow to treat by electrolysis, for the simple reason of their hardness. Other conditions being the same, the harder the tumor the less it yielded to electrolysis without reference at all to malignancy or non-malignancy. Some uterine fibroids would grow smaller or disappear under electrolysis, and in nearly all cases numbness, neuralgia, and other incidental symptoms might be relieved by electrolytic treatment. The use of large knives or needles, or large galvano-cautery batteries in the electrolysis of fibroids was unnecessary, unadvisable, and unscientific. It was not, however, the electricity in these cases, but the size of the needles, which did the harm. Small needles could be used through the abdomen in large numbers, and connected with mild currents, without doing any harm to the peritoneum.

Seventh, of Glandular Tumors.—Those yielded slowly to electrolysis. Thayer's method of strong Faradization to break up tumors mechanically, and Golding Bird's method of body batteries, he had used with a certain degree of success.

Eighth, of Ovarian Tumors.—There was no present probability that electrolysis would accomplish very much for ovarian tumors. If tumors of that kind were seen very early while small, it was not improbable that they could be cured by electrolysis, just as cystics in other parts of the body were cured, such as hydrocele, etc. But, practically, surgeons did not see those cases very early. The claim that ovariotomy could be displaced by electrolysis was not sustained by practical experience.

Dr. Beard also referred to aneurisms, ulcers, and certain diseases of the skin. The published statistics regarding the treatment of aneurisms by electrolysis were of but little value. Ulcers might be treated by body batteries.

The future of electrolysis in surgery depended upon radical advances made in electro-physics beyond what had already been done by experts in that department. Electro-therapeutics in all departments was based upon electro-physics, and all the radical advances in electro-surgery had been preceded by advances in therapeutical and practical electro-physics.

Dr. A. C. Post expressed a doubt regarding the propriety of using chloroform for producing anæsthesia when ether could be employed, and referred to a case in which death was unexpectedly caused by administering chloroform to a child eleven years of age. He also asked whether emboli might not come from the clots formed by electrolysis?

Dr. F. V. White remarked, that according to his own experience, chloroform was a much safer anæsthetic than ether, and referred to cases in which rather alarming symptoms had followed the administration of ether.

Dr. Stephen Smith referred to the general use of chloroform, and thought it was a safe anæsthetic.

Dr. De Luna referred to an aneurism by anastomosis, which Dr. Saas had treated successfully by electrolysis.

Dr. Beard, in conclusion, stated that his remarks with reference to chloroform applied only to its use among infants and children under five years of age. He never gave the chloroform himself, but always trusted it to some person whose duty it should be to devote his exclusive attention to its administration, and directed that small quantities only be used, and with every possible precaution. He always felt safer in its use because electricity, which was an antidote, was being used at the same time. With reference to the formation of emboli from the clots, he thought there was no danger in that direction, because the electrolysis excited a slight inflammation; which caused the clot to adhere to the walls of the tumor.

The Section then adjourned.

New Instruments.

AN IMPROVED HYPODERMIC SYRINGE.

By GEO. R. FOWLER, M.D.,

BROOKLYN, N. Y.

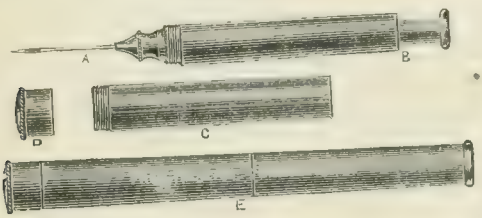
Among the many disadvantages attending the use of the present form of syringe may be mentioned the following:

1st. Drying of the piston, it being usually made of leather or like material, and consequent loss of time (on an occasion, perhaps, when an urgent necessity exists for its immediate use) in swelling or soaking the same.

2d. The danger of loose particles becoming detached from the leather packing and being injected along with the solution. This is a positive danger and not an imaginary one. I have no doubt that many cases of abscess following hypodermic injections are due to this cause and not to the presence in the solution of undissolved crystals of sulphate of morphia, as generally supposed.

3d. The leather packing requires to be frequently oiled and this soon converts the piston into a greasy mass besmearing the interior of the barrel.

4th. Wearing out of the case. The cases are made of wood covered with leather, and in warm weather especially the glue which cements the leather to the wood softens, and the case is soon destroyed and useless.



The syringe here described consists of a barrel, needle, A, piston, B, and receptacle, C, for powders. The barrel is made of hard rubber, and to one extremity is attached the needle in such a manner as to be easily unscrewed and removed. The piston is also made of hard rubber, and is accurately fitted to the barrel. The receptacle contains in its interior a guard or cover to protect the needle from injury when the whole is screwed together. This receptacle has a cap, D, the removal of which discloses a compartment for the reception of either solution or powders, preferably the latter. Into this compartment eight powders of a quarter of a grain each of the sulphate of morphia can be placed. The whole instrument when screwed together as at E, is about the size and shape of an ordinary hard-rubber thermometer case, and occupies no more room in the pocket.

My usual plan, when about to give a hypodermic injection, is to remove the receptacle, unscrew the needle, draw back the piston and empty one of the powders into the barrel. I then pour a few drops of water into the barrel, replace the point, and after giving the instrument a few shakes to make sure that all of the sulphate of morphia is dissolved, the instrument is ready for use.

This syringe may be made available for carrying in the pocket-case by having a simple guard screwed over the needle instead of the receptacle.

The advantages claimed for this instrument are:

1st. Accuracy of dosage.

2d. Simplicity in construction, there being no complicated parts to get out of order.

3d. Durability; the entire syringe, except the point, being made of hard rubber.

4th. Cleanliness, no oil or other lubricant being present to soil the interior.

5th. Always ready for use, the piston being made of solid hard rubber, and never requiring to be soaked before using.

6th. Its portability, being of very small size.

7th. Cheapness, being sold for less than the common syringes.

Correspondence.

SHAKSPERE ON THE PRACTICE OF MEDICINE.

To the Editor of The Medical Record.

Dear Sir:—The many-sidedness of Shakspere's mind is, to physicians, interestingly evidenced in the several occasions whereupon he refers, directly or indirectly, to matters pertaining to physic; or where the isolation or accentuation of certain passages make him appear to so refer. In illustration of this point I have selected the following excerpta from several of the plays:

Obstetrics.—"*Mar.* Does it work upon him?

"*Sir Toby.* Like aqua vitæ with a midwife."—*Twelfth Night.*

Hepatic Therapeutics.—"—— brimstone in your liver."—*Ibid.*

Cathartics.—"—— grown sick of rest, would purge."—*Ant. and Cleop.*

Syphilis.—"Pox on't!"—*Twelfth Night.*

Clinical Examination of Urine.—"*Fal.* Sirrah, you giant, what says the doctor to my water?

Page. He said, sir, the water itself was a good, healthy water; but for the party that owed it he might have more diseases than he knew for."—*K. Hen. IV., Part 2.*

Splenitis.—"You shall digest the venom of your spleen."—*Jul. Cæsar.*

General Surgery.—"—— hurt him in eleven places."—*Twelfth Night.*

Brachial Paralysis.—"I cannot scratch my ear."—*Ant. and Cleop.*

Venesection.—"Nay, then, I must have an ounce or two of this malapert blood from you."—*Twelfth Night.*

Alcoholismus.—"O he's drunk, Sir Toby, an hour agone."—*Ibid.*

Surgery.—"For the love of God, a surgeon."—*Ibid.*

A General Practitioner Confronted with a Specialist's Problem.—"This disease is beyond my practice."—*Macbeth.*

Fragilitas Ossium.—"The dryness of his bones."—*Ant. and Cleop.*

Embolus.—"This does make some obstruction in the blood."—*Twelfth Night.*

A Physician Defined.—"Master doctor, he is a curer of souls, and you a curer of bodies."—*Merry Wives.*

Asthma.—"—— pants, and looks pale."—*Twelfth Night.*

PRESCRIPTION.—"No dram of a scruple; no scruple of a scruple."—*Ibid.*

NECROPSY.—"Then let them anatomize."—*K. Lear.*

CHLOROSIS.—"—— and Lepidus, as Menas says, is troubled with the green sickness."—*Ant. and Cleop.*

CIRRHOSIS OF LIVER.—"——let there be gall enough."—*Twelfth Night.*

SURGERY. "Honour hath no skill in surgery, then."—*K. Hen. IV., Part* 1.

LEUCOCYTHÆMIA CURED.—"—— will turn to redder drops."—*Jul. Cæsar.*

UTERINE TUMOR.—"—— which from the womb."—*Twelfth Night.*

CASTRATION.—"Thou eunuch!"—*Ant. and Cleop.*

HEPATIC CONGESTION.—"I had rather heat my liver with drinking."—*Twelfth Night.*

REGIONAL SURGERY.—"I'll fetch some flax and whites of eggs to apply to his bleeding face."—*K. Lear.*

MANIA.—"Do not think I am mad."—*Twelfth Night.*

COPHOSIS.—"*Fal.* Boy, tell him I am deaf."—*K. Hen. IV., Part* 2.

MEDICAL CONSULTATION.—"What says my Esculapius, my Galen?"—*Merry Wives.*

CORYZA.—"He was troubled with a rheum."—*Ant. and Cleop.*

SUPPOSITORIES.—"—— when remedies are *past*."—*Othello.*

JAUNDICE.—"—— hath with his tinct gilded thee."—*Ant. and Cleop.*

LEPRA.—"—— whom leprosy o'ertake."—*Ibid.*

MINERAL WATERS.—"Nay, I am for *all* waters."—*Twelfth Night.*

BENEDICTION ON AN "M.D."—"Bless thee, bully doctor!"—*Merry Wives.*

These examples (which might easily be multiplied) serve to show that if the mighty master possessed no technical knowledge of our art, he was, at least, observant of it, and often referred to it.

Very respectfully yours,

F. BRADNACK, M.D.,

No. 70 East Eighty-sixth Street, N. Y. City, Jan., 1879.

[A few more occur to us.—ED.]:

FLATULENCE.—"The winds grow high, so do your stomachs, lords."—*King Henry VI., Act II.*

PROBABLY GANGLIONIC DEGENERATION OF THE ANTERIOR HORNS OF SPINAL-CORD.—"Alas! master, what shall I do? I am not able to stand."—*Ibid.*

THE ANTISEPTIC METHOD.—"The foul and ugly mists of vapors that did seem to strangle him."—*King Henry IV., Act I.*

TWENTY PER CENT. CARBOLIC.—"I smell it; upon my life, it will do well."—*Ibid.*

SURGERY IN THE COAL REGIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In compliance with your courteous request for statistics of accidents and peculiarities of surgery in the Anthracite region, I send you the following hastily penned items, inviting your attention specially to the suggestion of *light* as the remedy of the future for the appalling dangers of the mines.

From 1871 to 1877 (inclusive) there were killed in the Anthracite mines of this State 1,682 men, and injured 4,171, leaving 968 widows and 2,804 orphans. Bituminous mining is comparatively safe. The Anthracite region is divided into five districts; the reports of the Inspectors for 1878 are not yet made up, but through the courtesy of Mr. W. S. Jones, Inspector for the Lackawanna region, I have secured the following figures: killed in this district in 1878, 33; injured, 189. 75 per cent. of these accidents in 1878 were caused by "fall of roof." No accident occurred from explosion of gas. Mr. Jones informs me that this good result follows from better ventilation, and the exclusion of the safety lamp; he has forbidden the latter in his district on account of the small margin of safety it furnishes, and the neglect of better precautions which it has been made to excuse.

I thought I had seen the possible dangers of mining exhausted in falls of roof, explosion of carburretted hydrogen, and explosion of powder; suffocation by carbonic acid gas, and suffocation per se; accidents by caves, fire, and cars, etc., but last summer witnessed another element added to the list. In the floods of August 31st, Pine Brook burst into the Fair Lawn Slope; the men cut their way into the Pine Brook Mine and escaped by the mule-way, all but one; a miner caught two boys and faced the torrent of water coming down the slope breast high, bearing ties, coal, and débris, and lifting the car-track from its bed; on this he stumbled, struggled upward, and escaped with *one* boy.

Furnaces have given way to fans in nearly all the mines of this region; a vast improvement for ventilation. The law requiring a second opening into all mines is well observed since "Avondale" and "West Pittston," yet this terrific mortality from "fall of roof" remains. All hands attribute it to carelessness, but I have long been convinced, from personal observation underground, that the great remedy needed is LIGHT. I hope to see the day when the miners can work in their chambers with every crack and flaw in the roof overhead blazing in electric light.

The preponderance of the form of accident mentioned gives us many and unique cases of injury of the head, back, and spinal column.

February 12, 1877, P. McG. was struck on the back by fall of roof, which at the same time killed his helper; next morning I cut from the urethra of McG. a renal calculus, conical and truncated, measuring three-eighths by one-half of an inch; he had been previously under my observation for dysentery; the absence of vesical symptoms, the shape of the stone, and the finding of it immediately after the terrible blow on the back, make it certain to my mind that it was from the kidney. If I am right, the accident which killed his partner *cured* him; and an old suggestion for the dislodgment of renal calculi is affirmed.

Concussion of the spinal cord from fall of roof is so common that we become familiar with all varieties of paraplegia; it is an interesting study, responding with remarkable accuracy to careful prognosis; although the prime factors are first, seat, and second, extent of the injury to the cord, and they are not usually open for inspection, yet the nervous manifestations indicate them as the deflections of a galvanometer locate a fault in the electric circuit. Does complete paralysis extend to the umbilicus?—then death is almost certain. Does it only approach the hips?—then recovery is quite probable. In the zone between these points the anæsthetic index often wavers between life and death. I have seen cases of paralysis of the bladder (and lower extremities) requiring the constant use of the catheter for weeks, in which a little area of hyperæsthesia round the hips prompted a favorable prognosis, which the result always justified.

We have small hospitals here and at Wilkesbarre; the following are the statistics for 1878 here: In-patients, 89; out-patients, 1,194; amputations, 7. Double and triple amputations are common, and when simultaneous show a fair percentage of recoveries.

Consecutive amputations cannot be too severely condemned.

Dislocations of the hip, with all manner of fractures, are common; good surgeons hereabout make a rule to reduce all such dislocations, for obvious reasons, unless the patient is already dead.

The coal region maintains a small army of cripples as a monument to bad surgery; femurs treated without extension, and shortened from three to five inches; badly treated fractures of the clavicle, mistaken for acromial dislocations; unrecognized dislocations of the hip, and badly treated and anchylosed joints of all the limbs, are some of the records of quackery in the past.

This valley (the Lackawanna) and the Moosic Mountains round about, are entirely free from malaria; patients from ague districts suffering from not incurable lung affections, do well here.

Sincerely yours,

J. E. O'BRIEN.

SCRANTON, PA., Jan. 20, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 19 to January 25, 1879.

IRWIN, B. J. D., Major and Surgeon. Par. 7, S. O. 176, A. G. O., Aug. 15, 1878, granting him one year's leave of absence, is amended to grant said leave on surgeon's certificate of disability. S. O. 16, A. G. O., January 20, 1879.

LORING, L. Y., Capt. and Asst. Surgeon. Relieved from duty at Fort Hays, Kans., to proceed with Co. B., 23d Infy., to Fort Dodge, Kans., and there report to Col. Jeff. C. Davis, 23d Infy., for duty, to accompany the troops of his command and take post with them. S. O. 12, Dept. of the Missouri, January 20, 1879.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 16, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 25, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 18, 1879.	0	9	204	5	6	52	0	0
Jan. 25, 1879.	0	4	216	1	2	54	0	0

THE MARY FLETCHER HOSPITAL IN BURLINGTON, VT.—The formal opening of this beneficent institution took place, with appropriate ceremonies, in the city of Burlington, Vt., on Wednesday, January 22, 1879. This hospital was built and endowed by the munificence of Miss Mary Fletcher, and appropriately bears her name. The principal address was delivered by Prof. D. B. St. John Roosa, of this city, and was in every respect a worthy production. Brief addresses were also delivered by Prof. Walter Carpenter, President of the Board of Trustees, and by President Buckham, of the University, who is also one of the Board of Directors. The amount donated for the noble purpose was $175,000.

THE NEW DEAN OF JEFFERSON MEDICAL COLLEGE.—Ellerslie Wallace, M.D., Professor of Obstetrics, has been elected Dean of the College in the place of J. B. Biddle, M.D., deceased. No new professor of Materia Medica will be elected at present, as Robert E. Rogers, M.D., Professor of Chemistry, will deliver the lectures in this branch until the end of the present term.

VALEDICTORY ADDRESS AT THE PHILADELPHIA SCHOOL OF ANATOMY.—The lecture-room of the Philadelphia School of Anatomy was crowded on Friday evening, Jan. 10th, with medical men and students to listen to the closing lecture by Dr. John V. Shoemaker, in the department of diseases of the skin. The speaker pointed out the scientific manner in which the class had been educated so as to be "masters of all exclusive systems of medicine;" that they had frequently witnessed in the clinics the good result of the use of medicine, in both large and small doses, and the applications of electricity and of water for the cure of disease. It was shown that each remedy could not supersede, but must co-operate with others, and their selection must be guided with appropriate knowledge, sound judgment and accomplished skill. They were, therefore, scientific physicians, and not allopaths. The name "allopaths," he contended, was a misapplication, was not their proper title, and was invented by Hahnemann, to designate the ordinary practice of medicine as opposed to homœopathy. In conclusion, the speaker appealed to the physicians and students present to assist in eradicating the popular delusion in the misuse of this name of "allopath," and advised them in all cases to follow the instructions they had received, by using anything whatever that can be found to save life, relieve pain, and preserve health.

THE NEW LABORATORY BUILDING OF THE UNIVERSITY OF PENNSYLVANIA MEDICAL SCHOOL.—The work on this building was begun in May, 1878, and by November last the first, second, and third stories were ready for occupancy. The fourth floor is not to be finished until next fall. The structure is 152 feet long, by 47 feet wide; is four stories in height—68 feet—with Mansard roof, and is built of gneiss and serpentine stone. Each story is lighted by thirty-eight windows. The first floor is arranged for dental clinics, having thirty-four of the most approved style of operating-chairs, etc. The manipulating rooms of the chemical laboratory on the second and third floors are without partition in their whole extent. The students have in common the use of seven balances and two microscopes. Both floors have sixteen fully equipped fume-closets, and also two double rows of working-tables. Each student occupies a separate working-table fitted with gas, water, sink, etc. When night-work is necessary, sixty-two gas-burners give the necessary light.

The course of study pursued by the students of the first year in practical chemistry is entirely analytical, occupying eight hours each week. The work of the first year consists, first, in testing for the reactions of all but the very rare metals, and, second, in making out the equations for these reactions. At the end of this course there is an examination, which, successfully

passed, the student begins the analysis of unknown substances. Thus far the course is compulsory. Those who have done well are then allowed to take up quantitative analysis.

The second year's work in the laboratory requires four hours each week. It consists in analyzing and separating all the organic acids used in medicine, and a qualitative, quantitative, volumetric, and gravimetric examination of urine for its various normal and abnormal ingredients. The remainder of the year is spent in toxicological investigations. Poisoned animals are allotted to the students for examination. The mode of administration of the poison and its effects upon the various organs are carefully studied out.

The fourth floor, when completed, will be occupied by the physiological, pathological, and histological laboratories. There will also be a room for experimental therapeutics. The building is heated by hot-air furnaces. A fire-proof stairway in a projection on the north side of the building connects all the stories. The ceilings of all the rooms are lined with plate-iron, and supported by wrought-iron pillars. The entire cost, exclusive of apparatus, has been about $55,000.

Tri-State Medical Society.—The Tri-State Medical Society of Illinois, Indiana, and Kentucky began its annual session at Springfield, Ill., Nov. 13, 1878. A three days' session was held, during which many papers were presented. The subjects of modern lithotrity, of education, and of the yellow fever were especially discussed. The following officers were elected for the ensuing year: President, Dr. J. H. Ireland, of Louisville; Vice-Presidents, Drs. Compton, Griffith, and Holloway; Secretary, Dr. G. W. Burton, of Mitchell, Ind.; Treasurer, Dr. F. W. Beard.

Mr. A. Preterre, surgeon-dentist, of Paris, obtained at the Universal Exhibition of Paris the sole gold medal awarded to dentists.

A New Uterine Sound.—Codman & Shurtleff have recently devised a very ingenious sound, which is likely to facilitate the exploration of the uterine canal, and the diagnosis of displacements, new growths, etc. It consists of a bundle of light steel springs fifteen inches long, united at the ends, and placed within a small spiral wire which surrounds them with the exception of three inches at each extremity. Between the first and second fourth of its length is placed a handle, the rest of the sound is covered with a flexible rubber sheath. The longer portion is introduced into the os, and then, by gently manipulating the external end, the internal end can be moved in any direction. When the instrument is fairly introduced, the shorter external fourth has a curve exactly corresponding with that which is given by the uterus to the part within its cavity.

Iatroliptic Medication.—Prof. L. P. Yandell urges the more extensive use of iatroliptic medication, that is, the rubbing into the skin of drugs and nutritious oils. He has had satisfactory results from quinia by mixing it with glycerine, ʒ j. to ʒ j., and rubbing in a sixth or a fourth of this daily. He has cured diarrhœa by rubbing tannic acid and glycerine into the abdomen, and has seen diarrhœa result from the inunction of croton oil. He has great faith in the inunction of cod-liver oil, olive oil, or hog's lard in phthisis and marasmic conditions.—*Louisville Med. News.*

In Memoriam.—It is noticeable that nearly all the medical societies in the South and West have adopted resolutions, or published addresses in memory of the physicians who died at their post during the recent yellow fever scourge. Many of these memorial proceedings have been published in all the newspapers of the infected localities.

Intravenous Injection of Milk.—At a recent meeting of the Philadelphia County Medical Society, a paper was read on this subject, by Dr. Wm. Pepper. He concludes, among other things, that there is no danger from embolism, that its first effect is stimulating, that its subsequent effects are less lasting than those of transfusion, and its subsequent symptoms may be as severe. It may hasten death in structural anæmia.—*Bost. Med. and Surg. Journal.*

Body-Snatching.—The editor of *The Nashville Journal of Med. and Surg.* seconds very forcibly the demand which is springing up for better laws in regard to dissection and the supply of material. He justly attacks the stupidity and short-sightedness which make it a penitentiary crime in some States to dissect a human body. Body-snatching will exist until there are laws which arrange for the proper supply of material for medical colleges.

Deodorized Iodoform.—The disagreeable odor of iodoform limits its usefulness very much. It is said that this odor is covered in a solution made as follows: Tincture of iodine is shaken up with a fragment of fused potash until the color is removed. The odor of the iodoform thus produced is concealed by adding eau de Cologne. Iodoform mixed with tannin is also said to be nearly without smell.

The Yellow Fever Germ, it is calculated, travels at the rate of 40 feet in 24 hours.

Carbolic Acid Spray in Phthisis has been tried at Mt. Sinai Hospital, in this city, and found to increase the amount of expectoration, stop fetor, and reduce the temperature.—*Hospital Gazette.*

The Warm-Water Treatment.—Dr. A. H. Goelet reports to the *Hospital Gazette* a case of the successful treatment of phlegmasia dolens by wrapping the limb in flannel, saturating this with warm water, and covering it with oiled silk. The ordinary treatment was tried first, and abandoned.

Saliva and the Digestion of Starch. Dr. R. M. Smith, in a lecture on experimental physiology, at the University of Pennsylvania, showed that the gastric juice only suspended the action of saliva in changing starch to sugar, the action being resumed when the acidity is neutralized by the intestinal juices. He showed also that while caustic alkalies destroy the catalytic action of saliva, the weaker alkalies only suspend it. This proves the rationality of giving these alkalies in acidity of the stomach or mouth. It gives a better chance for the digestion of amylaceous foods.—*Med. and Surg. Reporter.*

The Dry Suture.—Dr. John H. Packard recommends this in closing long wounds. He uses strips of Seabury & Johnson's porous plaster two and a half inches wide and the length of the wound. These are applied on each side of the incision, and then the sides laced together, using the holes in the porous plaster.—*Phil. Med. Times.*

Resolutions on the Death of Dr. Biddle.—At a meeting of the Faculty of Jefferson Medical College,

held on Jan. 20th, the death of Dr. John B. Biddle, Professor of Therapeutics and Materia Medica, and Dean of the Faculty, was announced; whereupon the following was ordered to be entered upon the minutes of the Faculty:

"The Faculty of Jefferson Medical College find themselves plunged into the deepest sorrow by the death of their fellow-member, Dr. John B. Biddle, Professor of Therapeutics and Materia Medica, and Dean of their body, which occurred on the evening of the 19th inst. As a friend, they feel sadly the void thus created, and mourn over the departure of a greatly-loved companion. Endeared to them by his noble qualities of head and heart; as their colleague and executive officer, they realize the irreparable loss of a sound and sagacious thinker, an able and successful teacher, and a faithful, experienced, and judicious executive, whose untiring zeal and earnest labors in his own department, and for the school at large, have contributed so much to maintain the usefulness and advance the reputation of Jefferson Medical College.

"The Faculty feel that words are inadequate to express their sense of this bereavement, but desire to make record of the estimate in which they held the deceased, whose memory they will ever cherish with sincerest affection.

"They desire to convey to his sorrow-stricken family their warmest sympathy, trusting that in the knowledge they have of the esteem in which he was held in the community, and the love which was borne him by all his co-laborers and friends, and that he has left them in the assurance of a Christian faith for that larger life which is eternal, they may find comfort and consolation.

"*Resolved*, That a copy of this testimonial of the Faculty be transmitted to the family of Dr. Biddle, and also to the honorable Board of Trustees; and that the Faculty will attend his funeral in a body."

ELLERSLIE WALLACE, *Dean*.

THE NEW LECTURESHIP IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.—The Medical Faculty of the University, at their meeting on Jan. 20th elected Dr. Charles B. Naucrede lecturer on "The Anatomy of the Bones and Joints," in the spring course. The other candidates were Drs. Rush, Shippen, Hindekoper, Henry Wharton, Charles W. Dalles, and Hollingsworth Neill. Through an error, in a recent number of the RECORD, we spoke of the position for which Dr. Naucrede was a candidate as "a new chair of the Anatomy and Surgery of the Joints."

A VETERINARY DEPARTMENT IN THE MEDICAL SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA.—It may be of interest to the general profession to know that about ten months since the question was put to the Faculty of the Medical School of the University of Pennsylvania as to whether they would create and take charge of a Veterinary Department upon the condition that, as a first step, an endowment fund of $50,000 were raised and presented to them. The Faculty referred the matter to the Trustees of the University, who voted to answer affirmatively and accept the proposition. Ever since that time the gentleman who made the offer, Mr. Horace Smith, has been engaged in collecting the stated sum, but he has thus far made no statement of progress made.

AVOIDANCE OF PAIN AFTER AMPUTATION—REMARKS BY MR. CALLENDER, OF LONDON.—At a clinic held in Bellevue Hospital, January 26, 1879, Mr. Callender, on invitation by Prof. James R. Wood, amputated a thigh and made a few practical remarks with reference to preventing pain after such an operation.

There were many ways in which a surgeon might achieve success, but he wished to make mention of that specially characterized by a most careful observance of details and great personal care and attention to the case.

He thought surgery had so far advanced it could safely be said that, in a well-organized hospital, and with a skilful surgeon, the death-rate need not exceed six or seven per cent. He also believed the time was not far distant when even that rate of mortality would be reduced. Such results were, in a great measure, to be achieved by a careful consideration of everything which tended to give the patient pain and discomfort.

After the limb had been amputated, and the patient had been removed to the ward, there was a certain amount of distress and discomfort produced by the anæsthetic. Such was usually dealt with most satisfactorily by the administration of a sedative. He therefore made it an invariable rule to see that a sedative was administered immediately after the patient had fairly returned to consciousness. It was a small point, but it was worthy of recollection. How was the sedative to be given? Never by the stomach, but always by subcutaneous injection. The pain which the patient might suffer could be considered under two distinct heads:

1. That produced by external causes; and
2. That dependent upon internal causes.

The pain produced from causes without might be more or less referred to the position of the limb, movements of the body, changing the position of the limb, and very commonly it came from the handling by the surgeon. He recollected the time when the stump of an amputated limb was laid upon the bed, and when it was necessary to change the dressing, the surgeon was obliged to place his hand beneath it and lift it up, a proceeding which involved considerable disturbance of the parts and consequent pain to the patient; so much so, that he would almost always cry out on account of it.

To avoid such disturbance, reference was made to an apparatus which was to be applied to the amputated thigh, and briefly described on a former occasion.

With reference to the disturbances which come from *within*, there was what was called "*jumping of the limb*." As the patient falls asleep, perhaps, there was a jerking of the muscles, which awakened him, and caused him to cry out with pain. To prevent such jumping, he always made it a point to stretch the important nerves in the limb, simply for the purpose of numbing them.

Another trouble which came from within, and gave rise to pain and discomfort, was *distention of the stump with fluid, which necessarily separated the surfaces, rendering the patient liable to blood-poisoning, and prevented union by first intention.*

That could be entirely avoided by the use of a drainage-tube. The drainage-tube was prepared in the following manner: a piece of india-rubber tubing, long enough to pass completely across the limb, was cut in the middle and then united by means of a piece of ordinary catgut ligature. The catgut would be absorbed in about sixty hours, and then the pieces of drainage-tube could be removed from each side of the limb. Removed in that manner, the patient suffered very much less pain than if the whole tube was drawn through the stump. The amputation was then performed, and a description given of the apparatus (vid. MED. RECORD, Jan. 11, 1879, p. 26).

Original Lectures.

PRACTICAL HINTS UPON TRACHEOTOMY.

Being the Abstract of a Clinical Lecture Delivered at the Bellevue Hospital Medical College,

By BEVERLEY ROBINSON, M.D.,

lecturer upon clinical medicine.

Gentlemen:—I esteem it a somewhat rare privilege and opportunity to be able to bring before you two patients, both wearing tracheal canula for more than a year. The first of these men was operated upon by me in the month of December, 1877, and was at that time suffering from recurrent attacks of paroxysmal dyspnœa due to spasm of the glottis. What the efficient cause of this glottic spasm was, has as yet remained undetermined. There has been, however, a suspicion that aortic aneurism, originating in the posterior portion of the arch and irritating the recurrent laryngeal by compression, is present. No phenomena other than the repeated glottic spasm have ever shown themselves corroborative of this view, and to-day my patient tells me that for the past six months he has had at no time any notable distress of breathing, and in fact feels on the whole very well. The main, practical question in his case now is, when will it be wise to relieve him of his tracheotomy tube and close up the wound of the neck. My own belief is, the sooner it is done the better. For be it fully appreciated that although he has worn his tube lately with but slight inconvenience, it is an ever-present source of possible danger. There is danger from local irritation, ulceration, and the cropping out of fleshy granulations; there is danger likewise from attacks of cold, which might more readily lead to broncho-pneumonia, lung collapse, or even acute pleurisy during the period he wears his tube. He cannot always be on his guard against inspired draughts of cold, damp air; and obviously, unless he keeps his tube constantly closed and breathes through his nose, his pulmonary capillary circulation is ever exposed to the evil results of rapid and excessive chilling.

With these remarks permit me to pass on to the subject of to-day's lecture. As I proceed I may have occasion to refer to my patient to illustrate some of my remarks.

Tracheotomy is an operation it behooves you one and all to become familiar with, even in its minute details. In your professional career you may at any moment be called upon to perform it, and the urgency may be such that no delay would be permissible. Now, this does not hold good of very many operations. The majority of these may be put off to some convenient season, or, if it be a major operation like resection at the hip-joint, or lithotomy, may be passed over to some specially competent man to cope with. In fact, gentlemen, although some amongst you, whilst being general practitioners, may also become good surgeons, opportunity will not in all, or even many instances, be afforded you to be expert in *certain* operations.

It seems apropos in this place to mention the great advantages to be derived from the skilled use of the laryngoscope in many cases in which treacheotomy is indicated. How frequently are we able thus to determine the exact nature of the affection which occasions obstruction in breathing. It may be, for example, that an intra-laryngeal growth exists. By means of the laryngoscope its size, seat and nature can frequently be accurately observed. A foreign body may be lodged within or below the larynx. How far it places life in imminent danger, what the best instrument and operation for its removal are, can only be known after a preliminary diagnosis with the small mirror. In many syphilitic affections of the air-passages; in pressure upon the trachea or pneumogastrics from tumors of the neck or mediastinum; in laryngeal phthisis, after scalds and burns, subsequent to suicidal attempts; in exceptional forms of simple chronic laryngitis, and in many other conditions besides, the laryngoscope is an invaluable aid to accurate diagnosis and wise, skilful treatment.

One of the very first questions which it is wise to answer is, whether or not an inhaled anæsthetic should be employed, and if so, which one it should be. My attention has been directed to this subject several times, but never more earnestly than a few months since, after assisting a friend of mine in a case where ether by inhalation had been used and where death unfortunately took place upon the table. It is true the operation was an unusually difficult one, for a large cancerous mass lay in front of and around the trachea, and this organ was greatly deviated from its normal position. Add to this very intense dyspnœa of the patient at the time the operation was undertaken, and considerable hemorrhage after incision into the air-passages was of *necessity* made, and you perceive at once an imminently hazardous situation. I have thought that the condition of things was rendered graver still by the use of an anæsthetic. And the reason is apparent, viz., the patient was unable to throw off the blood which forced itself into the air-passages, and thus an already perilous situation became rapidly fatal. Without the anæsthetic influence the patient's respiratory mucous lining would probably have still retained sufficient reflex irritability to occasion cough and thus expel the indrawn fluid. In reality, once the skin has been incised, tracheotomy is not extremely painful; and moreover, localized refrigeration by means of a spray-producer charged with ether or rhigolene is all-sufficient.

In membranous croup at an advanced stage the asphyxia is so great that little or no pain is occasioned, even by the first incision. In order that the little patient may not, however, grasp the hand of the operator, or otherwise interfere with his endeavor, it is advisable to wrap the arms and trunk tightly with a sheet, or large towel of suitable length. For this and many other good practical suggestions I would refer you to Mr. Pugin Thornton's excellent monograph on Tracheotomy, published in London two years ago. There are a few points in reference to the anatomy of the trachea that it will be well always to bear in mind. The trachea is sometimes quite superficial; again it is deeply situated. This latter condition, which occurs with persons who are short and thick-set, or very fat, increases the difficulty of the operation considerably. And in this place I may add that you should always have one or two tracheotomy tubes with you of different *lengths*, so that you can feel sure that *one* at least can be introduced into the trachea when opened.

Be on your guard for anomalous arterial branches, such as the thyroidean and crico-thyroid artery, which in my experience have not shown themselves. The isthmus of the thyroid, you know, is at different heights and is of varying size. Your manner of procedure may be properly influenced by these facts.

Up to the age of two years expect that the thymus gland may be in your road. Do not lose sight of the facts that the thyroid plexus of veins are often much enlarged, and that the innominate and right carotid arteries do occasionally cross the trachea at a higher level than usual. The only essential instruments in performing tracheotomy are a scalpel and a tracheotomy tube; the others are all accessory, but are useful to have and to employ.

Amongst these I will mention particularly a faradic battery for restoring suspended animation, a pair of blunt retractors, a tenaculum, a piece of sheet spunk, and a syringe with a graduated nozzle. In performing the operation it is more convenient to stand on the right side of the patient, and if it be day-time, let the light come from a window in front. The primary incision should be quite long—say from one and a half to two inches, and as nearly as possible on the median line. This may be marked with a pencil. After the first incision is well made, let nearly all the ulterior dissection be carried on with the handle of a scalpel, or better still, Hamilton's dry dissectors. The thyroid plexus of veins, if they cannot be pushed aside, should be torn through. And in like manner the isthmus is to be treated. Some authors have feared hemorrhage from the isthmus, and have counselled passing a double ligature underneath and dividing between. This I believe unnecessary, unless the blade of the knife be used, in which case it certainly is more prudent. Let it be a cardinal rule, which is to be observed as far as practicable, that the trachea is never to be opened unless the hemorrhage be first arrested. When it is ready to open, and particularly with small children, fix the larynx and trachea by means of a tenaculum, and, after drawing it forward with a slight degree of force, puncture it with the bistoury and incise its walls from below upward. If there be subsequent hemorrhage, pass a piece of spunk under the shield of the tracheotomy tube and compress on either side of the tracheal wound. In rare instances we shall be compelled to withdraw the canula and introduce one of larger calibre. If the incision has been a long one—and it is better to err in this way than in an opposite direction—place a few points of suture and cover them with a square piece of sheet lint greased on the applied side, and partially bisected so as to pass one portion under either side of the shield of the canula. The application of the lint avoids the irritating effects from the constant contact of sputa. Before speaking of the after-treatment, I would like to say a few words in regard to the proper canula to employ.

The old-fashioned canula, curved like the segment of a circle, has the serious disadvantage of tilting upward and backward by its inner extremity, and thus causing ulceration of, and sometimes serious hemorrhage from the trachea. This may be obviated by a Durham's tube, which shows at its bend a right angle, and not the ordinary circular curve. Unfortunately the inner canula of the Durham tube is segmented, and one of these segments has been known to become detached and fall into the trachea. Such an accident might of course be fatal. By constant care and repeated examination of the condition of the inner tube, it might be worn for a long while with almost absolute safety. Besides, after a time it is not necessary to wear an inner tube at all, and in many instances even the outer tube is merely intended to be worn temporarily. The great objections to the hard rubber tubes are: 1. They corrode more or less rapidly. 2. They may and have become detached and lodged in one of the primary bronchi. 3. They do not allow a sufficient column of air to pass in proportion with their outside diameter.

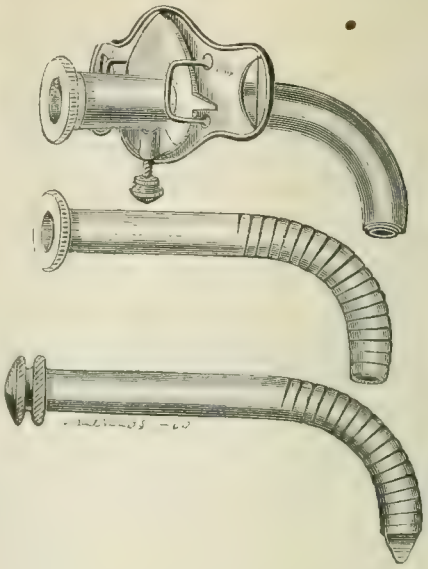


Fig. 1.

As regards the ulterior care of the patient, it is well, and indeed necessary, to have a constant attendant during the first two days, whose business it is to watch the breathing and cleanse the inner tube from time to time by means of a chicken feather. If the inner tube become very much choked up, it should be removed and thoroughly washed in water containing a small quantity of some alkali. When reintroduced it should be done with gentleness, so as *not* to cause unnecessary cough and irritation. Steam, from a croup-kettle or other convenient source, and in moderate quantity, may be permitted in the room when the mucus or other discharge from the trachea and bronchi is viscid and tenacious. On theoretical grounds, however, I am opposed to its immoderate use, as is so frequently done, because I believe it will increase the difficulty of breathing it is intended to ameliorate.

When a tube is worn permanently, it is preferable to introduce a cork in the outer orifice rather than to wear any kind of valvular contrivance, which either causes annoyance by its ceaseless noise, or quickly gets out of working order, and is then worse than useless.

When a temporary tube is withdrawn for the first time it should always be done with a considerable degree of precaution, and if it is left out too long it will be often difficult to reintroduce it. The wiser plan to follow is never to take out a temporary tube, unless it is essential so to do, so long as there is good reason to believe that the wound will not remain patulous at least for several minutes. In cases in which patients have been operated upon for membranous laryngitis, this condition usually requires four or five days to be reached. Whenever the patient goes out, or into a cooler or damp atmosphere, a light scarf should be worn in front of the tracheotomy tube, so as to ward off the risk of catching cold. For a similar reason it is necessary to have the bed-room kept warm for several days after the operation is performed, and scrupulously to avoid draughts or chills due to insufficient clothing. The accidents to be

avoided during tracheotomy are several in number, as well as the complications which may arise subsequently.

Amongst the former I might mention spasm of the glottis from a faulty position of the neck, entrance of air into a large vein, and almost instantaneous death due to reckless haste and want of proper precaution; inability to introduce the tracheotomy tube for different reasons, the more frequent of which is a too short or too lateral incision of the tracheal walls, and last but not least, the inpouring of blood into the air-passages, when the hemorrhage is profuse after the opening of the trachea, and cannot be quickly arrested. After employing pressure, cold, styptics, etc., in this last accident, do not forget to introduce a suction-syringe into the outer orifice of the canula, and withdraw whatever of blood can thus be taken hold of. As a last resort, as I have already mentioned, make use of the faradic current and continue to apply it so long as there is any evidence of lingering vitality.

Amongst subsequent complications it is proper to note those which may arise in connection with the canula, which may become detached as previously remarked, or may be, if too short, thrown out of the trachea during a paroxysm of coughing. This accident occurred twice with the first patient I have shown you this afternoon, and on one occasion he was very close to suffocation on account of pressure of the trachea by the canula, which was still in the wound and abutted as it were against the tracheal walls. Lung complications of different sorts—bronchitis, pneumonia, collapse—are to be dreaded during the first few days following the operation, unless special care be observed. They are to be treated, if they declare themselves, according to ordinary principles.

If, owing to the small size of the tracheal wound, or to the length of time and difficulty of introduction of the canula, emphysema of the neck occurs, it is absolutely necessary to have a tube of more than the ordinary length, so that the trachea can be reached and filled by it. If the canula become obstructed with false membrane or inspissated mucus, try first to remove it with a pair of long, curved, narrow forceps, and if this means fail, do *not* hesitate to remove the inner, and then the outer canula, if required.

It is often a useful thing, both during the operation and at a later period, to have a guide for the outer canula, so that all difficulty arising from the use of the ordinary form of dilator may be obviated.

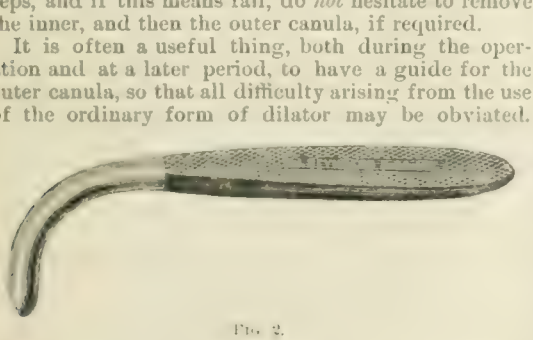


Fig. 2.

This I have accomplished with the guide which I hold in my hand, and which was constructed for my use more than a year ago. It is not an original idea, but is none the less practical, and I commend it strongly to you all. My second patient, who has carcinoma of the larynx, I will speak of at our next meeting.

Oleate of Zinc, either as an ointment or in solution, is highly recommended by Dr. Crocker, of London, in eczema, chronic ulcers, etc.

AN OBSCURE CASE OF ABDOMINAL DISEASE.

A Clinical Lecture

Delivered at the Pennsylvania Hospital, on December 18th, 1878.

By JAMES H. HUTCHINSON, M.D.,

One of the Attending Physicians of the Hospital.

(Prepared for The Medical Record.)

THE HISTORY AND SYMPTOMS OF THE CASE.—ABDOMINAL SWELLING WITH ASCITES.—ASPIRATION.—THE DIFFERENTIAL DIAGNOSIS BETWEEN CIRRHOSIS OF THE LIVER AND CHRONIC PERITONITIS.—THE CASE PROBABLY AN INSTANCE OF THE LATTER DISEASE.—ITS TREATMENT.

I shall bring before you this morning a patient who has been in the medical wards of the hospital for nearly a year, and consequently under the care of all of my colleagues. Notwithstanding the length of time she has been under observation, there is still some difficulty in deciding as to the nature of the disease from which she is suffering, or, to speak more correctly, has been suffering, because at present there is no evidence of the existence of active disease, but rather of the results of disease. Without further prelude I will call your attention to the important parts of her history:

She is a Swede by birth, about 30 years of age, and was at the time her illness began employed as an attendant at the department for the insane, of this hospital. She appears to have no hereditary tendency to disease of any kind. Her mother died from the effects of a miscarriage, but her father is living, and, although advanced in life, is in good health. Of her brothers and sisters, two died in infancy; another at the age of fifteen, of what would seem to have been acute Bright's disease; and a fourth, of consumption, of which, she assures us, there has not been another instance in her family. She herself had a perfectly healthy infancy and childhood, interrupted only by an attack of measles, from which she made a good recovery. At the age of nineteen she menstruated for the first time, but this function seems to have been in the main healthily performed afterwards up to the time of her marriage, seven years ago. Her only child was born about a year after, and is consequently now six years of age. He, it is said, is perfectly healthy, and so, she assures us, is her husband.

In the summer of 1876, while in charge of a violent patient, she was thrown with some force against an iron bedstead, striking the lower part of her abdomen. This injury was followed by a good deal of pain and tenderness in this region, and by menorrhagia, which continued up to the time of her admission, and has occasionally been present since. She attributes a good deal of importance to this injury, and says that she has never felt perfectly well since. It appears, however, that it interfered with her duties as attendant for a short time only, as she continued in the employ of the hospital, often losing sleep and rest, until a short time before her admission here.

When she first came under our observation, it is said that pain and tenderness over the abdomen, at first more marked on the right side, below the position of the liver, were the most prominent symptoms; together with this, there was an occasional hemorrhage from the womb. Shortly afterwards a gradual enlargement of the abdomen was detected, which, upon examination, was found to be due to an effusion into

the peritoneal cavity. At the time, percussion showed that the hepatic dulness was diminished in extent. The urine was passed in small quantities—sometimes not more than a pint a day being obtained from her, but it contained neither albumen nor sugar, and appears to have been healthy in every respect. The symptoms do not seem to have presented any variety at first; the pain and tenderness persisted, and the abdominal effusion increased gradually in amount, until it was thought better on the 24th of last June to remove it by operation, when nine quarts of a clear yellow liquid were drawn off. Since this time there has been, I am told, no evidence of a reaccumulation, and at the present time I feel quite sure that there is no liquid in the abdominal cavity.

There was also at one time a slight effusion into the right pleural cavity, but this must have been long ago absorbed, as there is no evidence of its existence now. Moreover, a careful examination of the chest shows that there is no disease either of the lungs or of the heart. One of my colleagues some time ago recognized the presence of endo-cervico metritis, and this still exists, though in a less degree.

These, then, were the prominent symptoms presented by the case when I first took charge of it about six weeks ago. Since that time I have studied it closely, but I am willing to admit that I am still puzzled by it. In order that I might examine her more thoroughly, I placed her under the influence of ether, but could not even then discover any condition which I could regard as positively the cause of the previous effusion. In the right iliac region there was a feeling of greater resistance to the fingers than upon the left side, and when I made a vaginal examination, I thought I could feel an indurated mass on the right side, between the fingers in the vagina and the hand on the abdomen; and the other physicians who made this examination with me, confirmed me in this impression.

To recapitulate the prominent symptoms presented by the case: we have in a strictly temperate woman, following an injury of some severity, menorrhagia, pain and tenderness over the whole abdomen, and a gradually increasing ascites, which, however, after having been removed by tapping, never reappeared. With these there are at the present time obstinate constipation, requiring the constant exhibition of cathartics to overcome it; diminished dulness in the hepatic region, especially marked in the right mammary line, but not so much so in the infra-axillary region; and the signs of slight enlargement of the spleen. The stools are, however, of good color; in other words, there is no reason for believing that there is diminished secretion of bile. The patient still passes rather a scanty amount of urine; but its reaction to every test is healthy. While there have been at times symptoms indicative of gastric disturbance, these have not been marked, and at the present time may be said to be absent.

THE CASE NOT ONE OF CIRRHOSIS OF THE LIVER.

Such is, in brief, the history of our patient. Can we explain the symptoms which she has presented since her admission into our wards, and especially the occurrence of ascites? I need hardly say to you, that the most frequent cause of abdominal effusion, especially when unaccompanied by dropsy elsewhere, is disease of the liver, particularly that form of it which is known as cirrhosis. This disease is, as you are aware, marked by contraction of the liver, and, in consequence of obstruction of the hepatic vessels, by great congestion of the portal circulation. This congestion must, of course, relieve itself in some way, and this is generally by effusion of serum into the peritoneal cavity. There are certainly some of the symptoms of this condition present—for instance, there is diminished hepatic dulness, and there are also the signs of splenic enlargement; the latter is, however, not decided, since it is only discoverable by careful percussion. I am therefore disposed to attach very little importance to it as a sign in this case. If there existed decided congestion of the portal circulation, the spleen would unquestionably be much more enlarged than it is.

There is also no distention of the superficial abdominal veins, such as is found in this condition, and which we should expect to see in a case in which some relief to the congestion of the portal circle had occurred as indicated by the failure of the effusion to reaccumulate. Moreover, the patient is a strictly temperate woman, and in making this statement I do not wholly rely upon her assertion to that effect, as it is corroborated by those who knew her in the other department of this institution. Now, while I will not go so far as to say that cirrhosis is never met with in a temperate person, I unhesitatingly maintain that its occurrence is rare. Many of the other symptoms of this disease are also absent. I have called attention to the fact that there are no evidences of disturbed digestion other than the obstinate constipation. There is also none of that peculiar pallor of the surface so often seen in cases of cirrhosis (especially in those which have run so prolonged a course as this has), which to an experienced eye is often alone sufficient to indicate its presence. It is rare, too, to find patients complaining of so much pain and tenderness upon pressure as has been persistently present in this case since I assumed charge of it; I certainly have never met with them in the many cases I have seen here and elsewhere. Occasionally, after tapping, a little suffering is caused by an examination of the abdomen; but this usually ceases in the course of a day or two. Jaundice has also never been present even in the slight degree in which it is occasionally seen in cirrhosis.

CURES IN ADVANCED CIRRHOSIS INFREQUENT.

Finally, cures in advanced cirrhosis of the liver must be very infrequent. They have certainly never come under my observation, and I do not find them reported as occurring by writers on diseases of the liver. Even an arrest in the course of the disease is rare when it has gone so far as to produce ascites. Indeed, it appears to me inconceivable that there can be contraction of the liver in this case in the absence of dropsy, of serous diarrhœa, and of an increased secretion of urine. The diminished dulness in the hepatic region is certainly difficult to explain, I admit, on any other hypothesis; but it alone does not warrant the diagnosis of cirrhosis. It may possibly be due to a slight alteration in the position of the liver, brought about in a way I shall later explain.

There is a condition which is known as peri-hepatitis, which also gives rise to abdominal effusion. In this disease the obstruction in the portal circle occurs as the result of inflammation, not in the interior of the liver, as in cirrhosis, but at the point of entrance into it of the portal vein. But this disease is characterized by a rapid accumulation of fluid, so that it is often necessary to remove it as often as ten times in the course of the year. Not many weeks ago I brought before you the liver of a patient who had died of this disease. You will recollect that I then told you how frequently it had been necessary to have recourse to the operation of tapping, and that I alluded to an-

other case which had been under my care with precisely the same history. I also told you that in the former case there was distention of the superficial abdominal veins, and decided enlargement of the spleen, both clearly indicating the existence of portal obstruction, and rendering the diagnosis comparatively easy. I will not dwell further upon this disease, because much that I said while discussing cirrhosis is equally applicable to it.

I mention, simply for the purpose of dismissing it from further consideration, cystic diseases of the ovaries as a possible cause of the dropsy in this case, because there never seems to have been any doubt in the minds of my colleagues that the fluid was in the peritoneal cavity, and the recognition of this fact is generally sufficiently easy. Moreover, it is certainly rare for an ovarian dropsy to disappear after a single tapping.

THE CASE PROBABLY ONE OF CHRONIC PERITONITIS.

We have therefore to find some other cause for the ascites. In reviewing the history of the case, it seems to me more probable that this was due to chronic peritonitis, rather than to any other cause. It was formerly doubted whether chronic inflammation of the peritoneum could exist independently of tubercles, but at the present time the majority of good observers agree that it does occasionally occur. Indeed, Dr. Hilton Fagge goes so far as to say, in the twentieth volume of Guy's Hospital Reports, that for every two cases of cirrhosis of the liver treated in the wards of that hospital there is one of chronic peritonitis, causing ascites. This, judging from my own experience, is a statement which few hospital physicians would corroborate. Still, it shows that the disease is met with occasionally, and justifies us in attempting to explain the symptoms in the present case by referring them to it as a cause.

We have had here, you will remember, an injury to the abdomen which gave rise to menorrhagia, and probably also to inflammation of the womb. At the present time there is only endo-cervico metritis discoverable; but an examination made shortly after the blow might possibly have revealed the existence of a more extensive lesion. Now this metritis, perhaps in consequence of overwork, probably set up an inflammatory process in the adjacent peritoneum, which may have gradually extended until it had involved a large portion of the membrane. I look upon the presence of the indurated mass in the right iliac region as confirming this view. Indeed, there is nothing in the case which can be regarded as opposed to it, except the diminished hepatic dulness, which is probably due to a slight alteration in the position of the liver, brought about, possibly, by the results of inflammation in its neighborhood. Chronic peritonitis is often attended by but little effusion, but that this is not invariably the case is shown by the fact that many cases are reported in which it has been necessary to have recourse to tapping. In most of these cases, also, but one operation was required. The inflammation subsiding, leaves the membrane spoiled, as Sir Thomas Watson expresses it, for the purposes of absorption, but with no tendency to pour out any more liquid. The pain and tenderness which have been such prominent symptoms, I need not tell you are common enough in chronic peritonitis, and so is constipation. The disease as it is, does not necessarily cause obstruction to the portal circulation—need not give rise to distention of the superficial abdominal veins. The fact, too, that the patient is slowly improving, is in favor of the view I am now taking of the case. There is no fever, and no excitement of the pulse; indeed, no active symptom of any kind. The discomfort which she undoubtedly suffers is therefore probably due to the presence of adhesions which interfere with the functions of the bowels.

The disease is, in all likelihood, not due to the presence of tubercles in the membrane, because there are no evidences of the existence of consumption, and, moreover, the patient is not hereditarily predisposed to this disease.

In regard to the prognosis of this case, the improvement which has taken place since it has been in the hospital, and indeed during the last few months, leads me to hope that the patient will eventually recover, if not perfect health, at least strength enough to enable her to gain her livelihood.

THE TREATMENT OF THE CASE.

The treatment in this case, if my view of its nature is correct, must be confined to sustaining the patient's strength and relieving her of the constipation and pain, both of which are the cause of a good deal of suffering. For these purposes she has taken various tonics and purgatives, as well as anodynes, since her admission into our wards. At the present time she is taking a pill containing one grain each of extract of aloes and extract of hyoscyamus with one-tenth of a grain of extract of nux vomica—a prescription which was original, I believe, with Dr. T. G. Thomas, of New York, and which, so far, has answered the purpose for which it was prescribed. As the urine has been of late rather scanty, she has been taking acetate of potassium and compound spirits of juniper. The pain yields only to morphia, either given by the mouth or hypodermically. Various applications have been made to the abdomen, but very little relief seems to have been obtained from them. At an earlier stage of the disease it might have been well to have used some mercurial ointment. Dr. Fagge speaks highly of the *linimentum hydrargyri*, but the time has passed when it would be at all likely to be of any service.

I have thus shown, as fully as my time will allow, the difficulties which surround the diagnosis of this case. It may be that I have come to a wrong conclusion in regard to its nature, and that it will eventually prove to be one of disease of the liver, but with the present light we have upon it, I cannot think this at all probable.

[Since the delivery of the above lecture, the patient has steadily continued to improve, and has gained so much strength that her detention in the hospital is no longer necessary. Her attacks of pain have become much less frequent and severe, and the menorrhagia has been to some extent relieved. Her appearance at the present time indicates an almost entire restoration to health, and is certainly very different from that which usually accompanies serious organic disease of the liver.

No important change has been made in her treatment except that she has been taking for some time past Trommer's Extract of Malt, from which she seems to have derived much benefit.

It has recently come to light that one of the attending physicians of the hospital, who saw her while the acute symptoms were still present, believed that she was suffering from entero-peritonitis. This fact, of course, fully confirms the lecturer's view of the nature of the case, and renders it almost certain that his diagnosis was correct.—*Reporter.*

Original Communications.

AN INSTRUCTIVE CASE OF OVARIOTOMY.

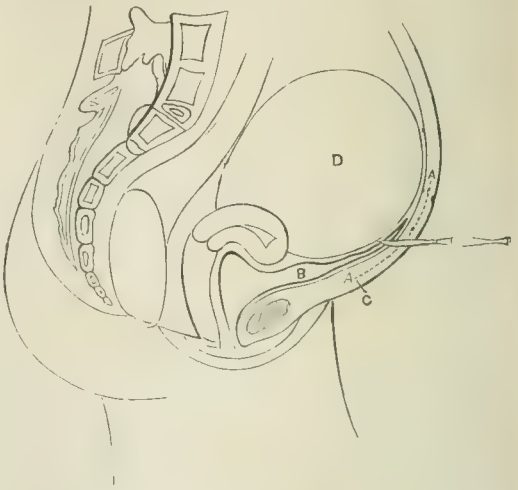
THE WALL OF A MISPLACED BLADDER INVOLVED IN THE INCISION—DEATH.

By LEROY McLEAN, M.D.,

SURGEON TO TROY HOSPITAL, TROY, N. Y.

Miss A., æt. 24, had always been healthy previous to 1873. During the spring and summer of that year she was under treatment for uterine disease by her family physician. At this time she suffered from pelvic pains and "bloating of the abdomen."

In the winter of 1873 was perceived the first indication of a growth in the left iliac fossa. The development of the tumor was slow. In 1876 it had attained such dimensions as to displace the neighboring viscera, causing the usual symptoms—dyspnœa, flatulency, aggravated digestion, etc. The catamenia continued with more or less regularity. I first saw her in August, 1878. She was not much emaciated, though the expression of countenance was anxious. The form of the abdomen was quite uniform, with a slight bulging above the umbilicus. She measured, at the umbilical level, thirty-six inches. The percussion sound was dull over the anterior surface of the abdomen. Fluctuation could only be distinguished over a small portion to the left of the median line below the umbilicus. The sound entered but an inch into the cavity of the uterus. Marked anteflexion of that organ could be detected by vaginal examination. Oct. 7th, assisted by Dr. Schuyler, and Drs. Vanderveer and Merrill, of Albany, I operated for the removal of the tumor. Before proceeding to the operation a large aspirating-needle was introduced to the left of the median line, and a quantity of fluid, having the consistency and color of molasses, withdrawn. The bladder was then evacuated. The incision was commenced half an inch below the umbilicus, and extended down two and one-half inches. At the lower angle of the incision, at a depth of three-quarters of an inch from the surface, I cut into what appeared to be a cyst in the abdominal walls, which contained about two drachms of pale fluid. The edges of the incision did not retract as they usually do when the abdomen is tense, and not liking the indications presented, and not being thoroughly satisfied as to what we had to deal with, the incision was carried upwards to a point on a line and to the right of the umbilicus, when the unmistakable ovarian sac was reached. Using the finger as a director, the opening was completed below, and the tumor removed. Suppuration had begun in a portion of the sac. It had two strong omental adhesions, one of which necessitated the application of a ligature. The tumor was of the multilocular character. The pedicle was secured with a silk ligature, and returned, it being too short to admit of clamping. Then was discovered the condition shown in the drawing, and the injury done to the bladder, it having been cut through on its anterior and posterior surfaces down to the point marked "C"—the lower end of incision. The anterior surface was strongly adherent to the abdominal wall. It was not adherent to the tumor. In completing the incision from above downwards the finger used as a director had passed behind the bladder (its walls being then in *close contact* from pressure of tumor behind), and the injury done as shown. The bladder was repaired with interrupted silk sutures. The adhesions of its anterior surface to the abdominal walls were not disturbed. Abdominal incision closed with silver wire.



The patient was carried to her bed, and one hour after a soft rubber self-retaining catheter (which we were obliged to send for at some distance) introduced, and two ounces of urine withdrawn, showing that the bladder was still capable of performing that portion of its functions. The catheter was left *in situ*, the urine being thus allowed to escape as soon as secreted. Previous to the introduction of the catheter she had expressed a desire to micturate.

At 10 P.M., ten hours after operation, her condition was good. She had rallied, but complained of feeling very tired. She expressed a desire for food. Pulse, 112; temp., 100°.

5 A.M.—Pulse, 125; temp., 101°. She has begun to show evidences of approaching dissolution. She gradually sank from this hour, death occurring at 7 P.M., thirty hours from time of operation. Her temperature did not at any time exceed 101⅘°. The secretion of urine was normal.

Post-mortem, in the presence of Drs. Vanderveer, Ward, Snow, Edward Hun, and Schuyler: Primary union of abdominal incision; no evidence of peritoneal inflammation; the bladder intact, good primary union, and no escape of urine into the cavity of the abdomen. The effort of nature at repair beautifully shown in portion of omentum which had been ligated—a fibrous clot had been thrown out which covered the ligature and formed a strong adhesion of cut end to a fold of the intestine. There was no evidence of sloughing of the pedicle. The adhesions of bladder to abdominal wall so firm that they *cannot be separated without tearing that viscus.* The uterus was anteflexed and bound down by strong adhesions.

The only theory I have to offer in explanation of the malposition of the bladder is, that the uterus having been anteflexed to the degree it was, the bladder under distention would naturally enlarge in the direction where the least resistance was offered. Her friends state that in 1876 she went from here to Chicago, and that she did not leave the cars during the journey. Now it is well known that women will sometimes go for many hours without micturating, and it may have been so with our patient, and as a result the distended bladder crowded itself upwards between the tumor

and the abdominal walls, and was held there mechanically by pressure of the tumor, after it had been emptied. It may be that the condition was a congenital one.

Had the tumor been adherent to the bladder there might be no doubt as to the cause of the anomaly. It might be suggested, as a wise procedure hereafter, to pass a sound into the bladder and the exact condition of that organ ascertained before operating.

A CASE OF EXOPHTHALMIC GOITRE.

By JOHN A. LIDELL, M.D.,

OF NEW YORK.

This disease is by no means common, and therefore the publication of the following case may do some good. The notes were taken at the time. Miss C., a maiden lady in good circumstances, about thirty-four years old, of stout build, dark hair, dark eyes, and brunette complexion, whose home was in the country, applied to me for treatment *March* 15, 1873. She has a large bilobate tumor in the throat, obviously developed in connection with the thyroid gland; the right lobe considerably larger than the left. Eyes also much protuberant, giving her a strange, staring appearance, with pupils somewhat dilated, but respondent to light. Says she first noticed the swelling in her throat about three years ago. During the last year, however, it has grown very rapidly. First noticed that her eyes were becoming too prominent about one year ago. The protrusion is increasing, and at times the eyeballs feel as if they would burst out of her head. Then she gets relief by pressing them back into the orbits with her fingers. As to the goitre, it sometimes is considerably larger than at others; it sometimes, also, gives rise to choking sensations and difficult breathing, or suffocative attacks, with dread of impending death. Is very nervous and easily fatigued. Countenance and lips rather pale. Is subject to dizziness, and is short-breathed, especially on making exertion. Is *not* liable to palpitation of the heart. Menstruation regular, much more so than formerly. Appetite good. Bowels inclined to be constipated. Suffered much from bleeding piles last fall, but of late not at all. Pulse about 90, full and hard. Heart beats strongly, but without abnormal murmurs. On examining the goitre with my fingers I find that each lobe of it pulsates synchronously with the heart, distinctly, strongly, and expansively, *i. e.*, in an outward direction, and imparts to the touch a jarring or thrilling sensation. On listening to it with a flexible stethoscope, a rather loud bellows-murmur is heard in every part of each lobe. Advised the application of ice to the goitre daily, and the internal administration of the following:

℞. Pulv. digitalis (opt.)..... gr. xij.
Ferri redacti (Quevenne)..... gr. xviij.
Mucilag. g. tragacanth..... q. s.
Ut ft. pil. æqual. No. 18.
S.: Take one pill three times a day, before meals.

Also:

℞. Pil. rhei comp. (sugar-coated), No. 6.
S.: Take one pill daily after dinner, until the constipation is relieved.

March 21.—Patient feels rather better, and is less nervous; has not had an attack of choking since she called on the 15th; goitre unchanged: has not applied the ice; pulse 90 (by count) and soft. Prescribed the following:

℞. Extract. ergot. fluid. (Squibb),
Tinct. digitalis..... āā ʒ iij.
S.: Take ten drops three times a day, in water.

Also:

℞. Pil. rhei comp. (sugar-coated), No. 6.
S.: Take one pill daily at bed-time.

March 29.—Patient says she is less nervous; finds now that she can write without shaking; exophthalmos the same; pulse 90, by count, but larger; goitre smaller; has much pain in uterine, sacral, and lumbar regions, apparently due to the ergot; says that on the whole she feels decidedly stronger and better. Applied the ice yesterday to the goitre, which, she thinks, caused it to shrink, but gave her a severe fit of suffocative breathing that followed the application thereof. Ordered the ice to be applied again on Monday (31st), and to call on me Tuesday.

Also:

℞. Pulv. digitalis (opt.),
Quiniæ sulph..... āā gr. xxiv.
Mucil. g. tragacanth..... q. s.
Ut ft. pil. æqual. No. 24.
S.: Take one pill three times a day.

April 3.—Patient says she feels still better; is decidedly stronger and less nervous; expression of countenance less anxious and more composed; eyes rather less protuberant; pulse less frequent and more natural in volume; after resting it is 84 by count; the goitre, especially its right lobe, decidedly diminished in size, and firmer in feel; bellows-murmur in right lobe also not so loud. Injected subcutaneously over right lobe of the goitre six minims of Squibb's extract. ergot. fluid. It caused some burning pain at the place of injection, but not so much as I had expected. Directed the pills of digitalis and quinine to be continued. She had failed or neglected to apply the ice again, partly from want of facilities to do it, and partly from dread of its possible effects, inasmuch as on a previous occasion it was attended with a paroxysm of choking and extreme dyspnœa.

April 25.—Both lobes of the thyroid (goitre) now free from thrill, quite hard, and considerably diminished in size. Prescribed:

℞. Granulæ acid. arseniosi (sing. gr. $\frac{1}{50}$, No. 100.)
Signa: Take one granule night and morning.

On the next day she returned to her home in the country feeling pretty well, since which time I have not seen her. I heard, however, through one of her friends who had seen her, that the improvement was permanent.

What struck me most in the management of her case was the good effect of the ergot, especially when it was employed subcutaneously at the seat of the swelling in her throat.

I have delayed the publication of her case because, hitherto, I have hoped to see her again, and to find by personal examination the result of the treatment.

46 Washington Square, January 2, 1879.

Ferments in Pancreatic Juice.—Th. Defresne (*Répertoire de Pharmacie*) has separated three different ferments from the pancreatic juice, each of which has different functions and properties: *Amylopsine*, which converts starch into sugar; *steapsine*, which splits up fats; *myopsine*, which dissolves albumen.—*The Doctor*, Nov. 1, 1878.

A CASE OF POISONING BY ACONITE.

By F. H. O'BRIEN, M.D.,

NEW YORK.

The patient, Miss M——, æt. twenty-four, unmarried, took through mistake half a drachm of the tinct. aconiti rad., which was followed in twenty or thirty minutes by a sense of warmth in the stomach, nausea, and oppression of breathing. Shortly after this followed numbness, tingling, and slight muscular weakness. She did not attribute her feelings to the drug, and in one hour from the time it was taken (4.30 P.M.) the dose was repeated. She started soon afterwards to walk a distance of two miles, and did not complain until about half way. On reaching her destination she began to stagger, and was soon completely prostrated. Her voice became very weak, and she complained of cephalalgia and lancinating pain in different portions of the body, but particularly in the joints. I was sent for, and arrived at 6.40 P.M. Learning that the patient had taken a poisonous dose of aconite, I administered the usual emetic, which was swallowed with great difficulty. I sent for Dr. Wm. H. Studley, who quickly arrived. I found the patient in the following condition: Axillary T. 97½°, P. 32; R. 10. Pupils dilated, extremities cold, loss of consciousness, extreme pallor of face with expression of great suffering, and there was a twitching of the mouth and eyelids. Emesis was produced. The stomach contained a considerable amount of fluid, which had an odor of alcohol. The retching continued, and her condition each moment grew worse, the pulse becoming frequent and irregular, and respiration more difficult. By consent of Dr. S. I injected hypodermically fifteen mins. Magendie's sol., just after which (not exceeding one minute) the symptoms became more alarming still; she having a slight convulsion. There was a spasmodic contraction of the laryngeal muscle, respiration ceased, and the pulse was imperceptible. Dr. S. did not observe me inject the morphia, and remarked that if I had not already done so it was useless to inject it.

She was a dying woman; respiration had ceased, the feeblest pulsation could not be detected, the body was cold to the touch, and we had every evidence of impending dissolution. We had lost all hope in the case, but were endeavoring to detect a feeble impulse of the heart, when suddenly and to our surprise the pulse sprang up, about the rate of forty per minute. The laryngeal muscles were relaxed and respiration began. Very soon the cheeks were flushed, and heat returned gradually to the extremities.

The thermometer was again placed in the axilla, and registered 98¼°. The retching continued, and in half an hour the pallor returned, there was general muscular tremor, and the pulse became frequent, and irregular as before. Ten mins. Magendie's sol. was injected, and an enema containing twenty grains carbonate of ammonia and one ounce of brandy. She soon rallied as before; this time recovering consciousness, and complained of cephalalgia, burning sensation in the stomach, and severe pain in different parts of the body. At ten o'clock P.M. I injected ten mins. more Magendie's sol., which seemed to quiet her, and at twelve o'clock she was asleep. The bladder had been evacuated four times since eight o'clock.—15th, six A.M., T. 99°; P. 80. Has vomited only after the enemas, which were repeated at intervals of two hours. She complained of great muscular soreness, and movement of the body is painful. She is very weak, her grasp being scarcely perceptible. Champagne and mucilaginous drinks were given, and the enemas continued, but at longer intervals.

Four P.M., T. 99½°; P. 72. Vomiting has ceased, and but little nausea. Diuresis has continued, and she complains for the first time of pain in the region of the kidneys, paroxysmal in character, lasting but for a few moments at a time.—16th, ten A.M.: T. normal; P. 80. Has rested well since evening before; diuresis diminished; no pain in region of the kidneys; cephalalgia and muscular soreness remaining.

17th, ten A.M.—Patient much improved; T. normal, P. 80. Has taken food in fluid form with relish. Muscular soreness diminished, and but slight cephalalgia, which remained for several days. Two days later she complained of a peculiar sensation at the roots of her teeth, and diarrhœa, which symptoms lasted but a short time. The patient gradually improved, the muscular soreness being last to disappear. I will not speak of the physiological action of opium and aconite, as time and space will not permit; but I think that the case presented illustrates the antidotal virtue of opium in aconite poisoning.

No. 1115 Madison Ave., Harlem.

Progress of Medical Science.

On the Treatment of Morbus Coxarius by a New Method.—Dr. Joseph C. Hutchison, in an article (*American Journal of Medical Science* for January, 1879), advocates the following plan of carrying out the indications for the treatment of morbus coxarius, which he considers to be: (1) to secure immobility of the joint; (2) to procure extension of the limb; (3) to take off from it the superincumbent weight of the body; (4) to provide means to enable the patient to take exercise in the open air. He considers that immobility is obtained by the rigidity of the joint, and that this continues until nature says it is no longer necessary. To obtain extension of the limb and to remove the weight of the body he resorts to the following device: On the shoe of the sound limb an iron sole is applied, three inches high, so as to raise the foot from the ground. This elevated shoe and a pair of crutches constitute the apparatus. As the patient stands on his crutches the diseased limb is suspended. The shoe should be high enough to prevent the toes of the affected limb from touching the ground. By these simple means we fulfil all the indications for the mechanical treatment of hip-joint disease. Immobility is obtained and friction prevented in the manner above indicated—chiefly by rigidity of the periarticular muscles. Extension made by the weight of the suspended limb, which is greater than the weight ordinarily employed for extension, is quite sufficient to relieve the inflamed parts from pressure and pain, and to overcome deformity of the limb even though it be considerable; the weight of the body is removed from the diseased joint, and the patient can enjoy all the benefits of open-air exercise.

Another Anti-emetic.—The value of spiritus nucis juglandis, "spirit of walnut," in vomiting, is much insisted on by Dr. E. Mackey. He has used it in various forms of vomiting, and found it successful after other things failed. He gives it in drachm doses three times a day.—*The Practitioner*, Dec., 1878.

Double Hearing—Autophony and Tinnitus Aurium—Causes of.—Dr. Samuel Sexton (Transactions of the American Otological Society, 1878) seeks to

elucidate some of the hitherto unexplained problems of audition, especially those connected with double hearing, autophony, tinnitus aurium, hearing better in a noise and the contrary. He believes that these conditions most frequently depend on derangement of the conductive apparatus rather than on pathological conditions of the inner ear, as is usually maintained. The various anomalies of audition, double hearing, etc., are of much greater frequency than is generally supposed. On examination it is found that some patients can hear their voice in two distinct ways—first by the medium of the external air and external meatus after the sound has issued from the mouth; second, by conduction from the vocal cords directly through the intervening tissues. Dr. Sexton believes that this occurs in cases where the articular surfaces of the malleo-incudal joint are separated as a result of disease. When this occurs in one or both ears much confusion is apt to result.

Musical persons sometimes complain of hearing musical notes falsely. Most authorities explain this by referring the abnormality to the auditory nerve itself. Dr. Sexton, however, believes it is due to imperfect conduction of the sound by derangements of the conductive apparatus.

Tinnitus aurium he explains as due to the sound waves of circulation in the neighborhood of the ear —but not in the labyrinth—which ordinarily are not heard, but when the malleo-incudal joint is separated these vibrations of sound reach the acoustic nerve through the incus and stapes. Dr. Sexton concludes that the operation suggested by Bonnefont and others, establishing a permanent opening in the drum-head, is not likely to prove as frequently useful as was at first anticipated. He further believes that the Politzer air-bag is sometimes liable to do injury by unduly stretching the membrana tympani when atrophied by disease.

Treatment of Wounds by Dry and Infrequent Dressings, Rest, and Pressure.—Mr. Sampson Gamgee, in a clinical lecture in the *Lancet* for Dec. 21, 1878, advocates the treatment of wounds by dry and infrequent dressings, uniform pressure, and absolute rest. The following is his plan: He unites the edges of the wound with silver sutures; a gauze and oakum pad is then placed over the wound, the limb enveloped in cotton-wool sufficiently to protect the bony prominences, and immobilized by lateral and posterior moistened pasteboard splints from foot to hip. A gently compressing bandage completes the dressing. He gives the histories of three cases of injury about the knee-joint, treated on this plan, and all did well. In one the tendon of the quadriceps extensor was completely divided, the intercondyloid space exposed, and the finger could be passed underneath the patella. The wound was not laid bare until the ninth day; healing was then perfect. There had been neither pain nor rise of temperature. A case of extensive contused and lacerated wound of head was also successfully treated on this plan.

In order to compare this plan with Lister's, Mr. Gamgee lately excised the elbow-joint in two patients on the same day. In one case the skin was unbroken, and in the other a sinus led down to a suppurating joint. He took the latter for the dry dressing, as its condition was not looked upon as a favorable one for the antiseptic method. The suppurating case was also the more unfavorable one of the two because its subject was altogether a weaker man. On the evening before the operation the temperature of these patients was about 98°. November 23d he excised both elbow-joints, making in each case one longitudinal incision. About the same amount of bone was removed from each, namely, of the humerus, radius, and ulna. In the dry case wetting the wound was carefully abstained from. Its surface was lightly brushed over with styptic colloid after twisting one vessel. Fine points of silver suture accurately approximated the edges, except in the centre, where a gap was left for a loop of drainage-tube, which passed through it and the opening on the radial side which had led into the joint before operation. The dressing consisted in strips of lint, soaked in styptic colloid, applied so as to assist the stitches, a gauze and oakum pad outside the joint, a covering of cotton-wool half an inch thick over the whole limb, which was immobilized in the straight position by means of moist pasteboard splints extending from the tips of the fingers to the shoulder, and moulded to the limb under a gently compressing bandage. The other case was treated according to the Lister plan, carried out in all its details. Four vessels were secured with carbolized catgut, the wound united and a drainage-tube of the same thickness as in the first case was inserted. The carbolic case was dressed whenever permeation was observed through the dressings, which was daily for the first few days. The dry case was dressed the first time at the commencement of the fourth day after the operation, when four-fifths of the wound were found healed. On the twenty-second day after the operation, there were about thirty drops of odorless pus next to the wound found in the Lister case. In the dry case the dressings were quite dry, the old sinus had all but closed, and the cicatrix was quite solid for three-quarters of its length; the elbow was flexed at a right angle, and there was no pain. The temperature, pulse, and respiration were higher in the case treated after Lister's plan than the one treated on the dry plan. Mr. Gamgee mentions the fact that the first patient rested better, and had a good night, while the second suffered pain in the arm, greatly intensified at each dressing.

The following is the record of the temperature, pulse, and respiration:

DRY REST CASE.

	Nov. 24th.	Nov. 27th.	Nov. 30th.	Dec. 3d
Temp...	102.5°	98°	98.4°	98.4°
Pulse...	96	80	84	76
Resp....	34	24	24	26

CARBOLIC SPRAY CASE.

	Nov. 24th.	Nov. 27th.	Nov. 30th.	Dec. 3d
Temp...	103°	102°	99.5°	98.4
Pulse...	120	108	88	106
Resp....	30	24	22	22

A system of treatment which requires that whenever the discharge is seen to come through the dressings, they are to be changed under carbolic spray, is opposed to the great principle of local and constitutional rest, subjects the patient to a great deal of pain and the surgeon to a great deal of trouble.

Treatment of Onychia Scrofulosa.—In the treatment of onychia scrofulosa, which is always accompanied by fungosities, M. de Saint-Germain employs a very simple operative procedure. It consists simply in paring off the end of the finger or toe, as one would trim a quill-pen, removing in one sweep the nail with its matrix, and the superficial portion of the phalanx with the fungosities developed on it. The resulting wound heals very rapidly.—*Journ. de Méd. et de Chir.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 8, 1879.

THE YELLOW FEVER INVESTIGATION.

THE Board of Experts on Yellow Fever, appointed by the Joint Committee of the Senate and House of Representatives, have submitted their report, and have therein endeavored to answer as far as possible within the allotted time the various questions which were presented for their consideration.

That the committee under the circumstances have done so well and have examined the subject in its general bearings so thoroughly, will be a matter of surprise to any who are unacquainted with the character and extent of the work. As might have been anticipated, however, the report is not yet complete. It nevertheless answers the purpose of its immediate presentation, in that it suggests the basis of that health legislation for which there is such an urgent demand. Aside from the more direct object in view, the report is interesting as furnishing some valuable scientific data based upon a careful and extended examination of the history of the recent epidemic. The majority of the conclusions arrived at serve to confirm the results of previous observations; at the same time many facts have been elicited that may be considered as new.

Without further introduction, we propose to summarize these conclusions in the order in which they are given in the report. After quoting the questions which were submitted to them by the Joint Committee, they proceed to answer them in turn. It is maintained that yellow fever is a specific disease, and is produced by the introduction in the human organism of a specific poison. The specific poison of yellow fever has never been microscopically nor chemically demonstrated, nor in any way made evident to the human senses. Nevertheless, the Board think that it is safe to assume it to be material and particulate, and endowed with the ordinary properties and subject to the ordinary laws of material substances.

Yellow fever is not a malarial disease—that is, it is not the offspring of that marsh miasm which produces paludal or periodic fevers—and there are no facts which warrant the conclusion that malarial influences contribute toward the dissemination and mortality of yellow fever in any other way or to any greater extent than they contribute toward the dissemination and mortality of other epidemic diseases. The precise nature of the favorable local conditions which seem to be necessary to the evolution of yellow fever epidemics is unknown. With the concurrence of high summer heat, atmospheric moisture, marsh malaria, and abundant filth, yellow fever often fails to swell into epidemic prevalence. Yellow fever has singular local attachments, often restricting its epidemic appearance to one portion of a city. Under such circumstances it exhibits a remarkable indifference to topographical and social surroundings. Atmospheric air is the usual medium of infection, although it does not appear that the disease has been carried to any considerable distance by atmospheric currents. In the large majority of cases the period of incubation is from two to five days. Second attacks of the disease are of rare occurrence. In its epidemic form the disease is one of warm climates and of warm seasons of the year. The specific poison is rendered innocuous by frost, and it appears probable that the temperature of boiling water is fatal to it. There is also reason to believe that the poison can be destroyed by chemical disinfectants. The fever is exotic in origin in all countries outside of the West Indies.

Yellow fever has invaded the present territorial limits of the United States, according to the testimony of existing records, in 88 different years. For 77 of these 88 years there is evidence, more or less complete, of importation, and in 71 out of these 77 the evidence points to the West Indies as the source of the infection. Four times—namely, in 1839, 1844, 1847, and 1867—the infection has been traced to Mexico, but in 1867 it was also traced to the West Indies. It is said that in 1800 and 1838 the disease was brought from Demerara, but in 1800 it was also brought from the West Indies. The fever of 1870 is attributed to Honduras.

The board knows of no facts which establish the proposition that yellow fever has become indigenous or epidemic in any part of the United States; there are facts which seem to warrant the inference that in some of our southern cities the specific poison of the disease, when hidden away from the cold in sheltered places, may live through a mild winter and give rise during the succeeding summer to scattered cases of the fever. It would seem to be theoretically probable that these scattered cases would, in their turn, give rise to an epidemic; but the proof that they have ever done so is not conclusive.

In its migrations the fever follows lines of travel; its poison is carried across seas by ships, cargoes,

crews, and passengers; into the interior by steamboats, cars, wagons, baggage, and infected passengers. The board do not attempt to decide to what extent the body of the sick person is accountable on the one hand, and to what extent the clothing and baggage are responsible for it on the other. Outbreaks of the fever have been, however, directly traced to infected articles of clothing and bedding. Ordinary merchandise, in original and unbroken packages, may become infected and lead to outbreaks of yellow fever.

Based upon the facts given, the board recommend the following measures for preventing the introduction of yellow fever into this country, the same measures applying also to cholera: First, the surveillance of ships at the time of sailing from infected ports to any port of the United States; secondly, their inspection, detention, and disinfection, when found necessary, upon reaching our coast.

The following scheme of quarantine, constructed from a purely medical point of view, is also recommended: This scheme contemplates two classes of medical officers—one class for foreign service and one class for home service. Medical officers of health for foreign service should be stationed at the various foreign ports having commercial relations with the United States, where yellow fever, cholera, or other epidemic infectious diseases prevail. Their duties should be to acquaint themselves thoroughly with all diseases usual to, or at any time prevalent in or around, the respective places to which they are assigned, and to make to a chief health authority at Washington the same reports as are now required of consular officers by Section 2 of the National Quarantine Act, approved April 29, 1878. They should forward reports of outbreaks of cholera, yellow fever, or other epidemic diseases, and of the departure of vessels from infected ports, or of vessels having on board persons or goods from infected ports, to be communicated by telegraph, or in the most expeditious manner, to a chief health authority at Washington. It should be their further duty to obtain the medical history of all ships trading to or from their respective ports, in regard to any previous occurrence of yellow fever or cholera or other infectious epidemic disease on board, and transmit the same for the information of said health authority.

Medical officers of health for home service should have charge of quarantine stations, and should supervise inter-State travel and traffic from infected places in times of epidemic. The two classes of medical officers suggested are considered indispensable to any method of quarantine which does not involve a complete suspension of intercourse with infected ports.

The measures for preventing the spread of yellow fever, when once introduced into the United States, are classed under the following headings: Local sanitation, isolation of the sick, segregation of the well, disinfection or destruction of the poisons, measures of personal prevention, and inland quarantine. It is a noticeable and significant fact that the board, as the result of their observations, oppose absolute quarantine, and advocate a system of protection which is entirely consistent with the safety of communities and with the maintenance of commercial intercourse with other localities.

In concluding this brief summary of a report which furnishes much food for thought and study, we would state that the Board of Experts have placed the country under obligations for the work thus far accomplished, and have, as we have already intimated, given a good basis for that intelligent legislation which is at present needed. The suggestions are reasonable and practical, and deserve careful consideration on the part of our legislators. Calling to mind the leading features of the Matthews bill for the creation of a National Health Bureau, it can easily be seen that they correspond in a very striking manner with the recommendations of the Board of Experts. This latter fact is possibly the strongest argument that has yet been offered for the bill in question.

THE PLAGUE IN RUSSIA.

THE hope indulged in by many European journals that the epidemic raging in Southeastern Russia was nothing more than a malignant type of typhus fever imported from Turkey is now pretty much dispelled. In fact, there do not seem to be any doubts that the disease is the veritable bubo-plague, and that it has gained a secure foothold in the province of Astrakhan, and is spreading panic along the whole course of the river Volga. The latest account of the origin of the pestilence is to the effect that a Cossack soldier, returning from the war to Wetlianka, a town in the province of Astrakhan, brought with him a shawl for his sweetheart. Two days after wearing the shawl the girl sickened and died with the symptoms of the plague. From that starting-point the disease spread in various directions for many days before the Russian Government saw fit to interfere by the establishment of a quarantine. Now thoroughly aroused, that government, actively aided by the people, is making use of means to check the progress of the disease. A sanitary line has been formed along the whole course of the Volga, and quarantines have been established at Sarepta, Iwanowka, Otrada, and Zaritzin. In the villages where the disease rages a cordon is established around the infected streets. The outskirts of these localities are also surrounded by soldiers preventing all communication. The efforts in the direction of the strictest quarantine are actively seconded by the people, many of whom will not even receive letters or paper money from the infected districts. The alarm seems to have spread into Europe, for Russian rail-cars are no longer admitted to Germany, and strict passport regulations will be enforced

after Feb. 10th. The Austrian Government has forbidden the importation of Russian goods except under quarantine, and is about to issue orders forbidding travellers from Russia to cross the frontier unless provided with passes from the sanitary authorities. The Porte has established a quarantine on the European coast of the Black Sea, and Roumania has decreed a similar course on the delta of the Danube. In spite of these precautions the plague is rapidly spreading, and from all accounts is making its way into western Russia. It would appear, from what we know of the general history of previous epidemics, that the progress of the plague can be stayed very materially by an efficient and careful quarantine. The weight of authority seems to be in favor of the spreading of the disease by indirect communication rather than from person to person. In this respect it bears a striking resemblance to yellow fever and cholera, both of which are controllable by a proper quarantine. It would seem, judging by the reports from Russia, that the government there has only a vague notion of what a quarantine should be. It requires something more than the penning of people in an infected town and shutting off all communication from the outside.

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, January 27, 1879.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

THE TREATMENT OF SPINAL CURVATURE BY CONTINUOUS EXTENSION.

DR. JOHN A. WYETH read a brief paper upon the above subject, and gave the history of an illustrative case.

Extension, fixation, and *rest* were the cardinal principles in the treatment of disease of the vertebral column, and when to those were added hygienic measures and judicious medication, we had the sum total of all the indications. The wheel-crutch and Taylor's brace indicated progress in our knowledge with reference to the treatment of spine disease, but each had its advantages and its disadvantages. The plaster-of-Paris jacket was a great stride in the right direction, and its simplicity attracted attention. Some of us supposed it to be the *ne plus ultra* in the treatment of curvatures of the spine, and that such sufferers had nothing to do but to submit to suspension by the arms and the neck, and be enveloped in plaster to be cured. But had it fulfilled this expectation, and did it meet all the indications? It came nearer than any other method of treatment which had yet been made public; but it had its faults, and those the doctor proceeded to point out. If the grip of the jacket could be uniformly maintained, it would meet all the indications. But it lost its firm hold in from seven to ten days after being applied, and therefore lost its property of maintaining the parts at rest and separating the diseased surfaces. Such result came from two causes:

1. Atrophy of the underlying parts from pressure; and

2d. Softening and relaxation of the plaster, produced probably by absorption of bodily moisture.

The apparatus having yielded, the diseased structures came again in contact; hence arose the necessity of removing and reapplying it, an operation which, according to his experience, was at times painful and annoying. It also made pressure upon the protruding spine, and often made excoriations. Although fenestra were cut, there was danger of the discharge getting beneath the plaster and in turn give rise to excoriation, which required removal, dressing the sores, and reapplication of the apparatus. The method which he presented he believed obviated all those difficulties.

It consisted, in the first place, of a plaster-of-Paris jacket, but the jacket was made in two segments, which came nearly together at the point at which the lesion was situated.

The upper section was applied by commencing about one inch above the seat of the disease, and passing upwards. The rollers would catch upon the expansion of the thorax from below upward, and also upon the muscles of the axillæ and the scapular prominences. Then, beginning just below the seat of injury, another jacket was applied, perfectly independent of the upper one, and extended downward until it caught upon the expansion of the ilium upon both sides.

FIG. 1.

FIG. 2.

Into each jacket, while it was being applied, were fastened zinc plates, (See Fig. 1, A) perforated from both sides, so that the little spicula became entangled in the plaster, and were thus rendered practically immovable. In the centre of each zinc plate a strong iron staple was fastened (See Fig. 1, B). Three of these plates were fastened into each jacket: one upon each side of the trunk and the third over the spine at opposite points above and below the seat of the lesion. To the stapes in the zinc plates extension bars (G) were fastened, which could be lengthened or shortened by means of a key (See Fig. 1, C and G). It was

the same form of ratchet, key, and lock as used upon knee- and ankle-splints used by Dr. Sayre and others.

With such an apparatus, if *extension* and *fixation* were the indications, he thought they could be constantly maintained. The bars could be extended to twice their length, if necessary, and whenever the jackets yielded, so that fixation was not perfect, a few turns of the key would so elongate them that perfect rest could be insured.

Dr. Wyeth then gave the history of a case which had been treated by means of his apparatus. When first attacked with the disease, the child was three and a half years old. He had been under observation at the Forty-second Street Hospital, where the diagnosis of hip-joint disease was made. He then passed to Dr. C. F. Taylor's Institute, where the diagnosis of Pott's disease of the spine was made and a brace adjusted. He was subsequently referred to a surgeon who took him in charge, using the same apparatus during nine months without improvement. He wore this instrument *nearly* four years, constantly growing worse. He was then removed to Binghamton, where Dr. Burr applied a plaster-of-Paris jacket. It was worn five months, and the boy improved somewhat; but, as it became painful and caused an ulcer over the seat of lesion, it was removed, and the old brace readjusted. He again ran down, lost flesh, etc., and finally came under Dr. Wyeth's observation, in April, 1878. The disease was in the lumbar region, and there was also lateral curvature and partial paralysis of the lower extremities. A solid plaster-of-Paris jacket was applied with the belief that a cure could certainly be effected in that way, and the child was sent home. For the first two or three weeks there was some improvement, but after that the jacket became loose, and it was very evident that it was a failure. It was removed, and a new jacket was applied in the same manner. That one was worn a few weeks, and finally became as unserviceable as did the first.

He then put into use the apparatus exhibited and described above. In three months and a half the apparatus was removed, and the patient was cured. The gradual and continuous extension had overcome the deformity.

The conclusions arrived at by Dr. Wyeth were as follows:

First.—That inflammation of the inter-vertebral substance or caries of the vertebra was amenable to the same treatment as was the same lesion occurring in the ankle, hip, or other joints, and that continuous extension, regulated to suit the requirements in each case, in the one as in the other, enforced fixation and rest, and thus met the great indications more fully than other methods.

Second.—That Darrach's wheel-crutch, and certain other forms of apparatus, acting upon the same principle—creditable to the inventive genius in a former age—had served their respective careers of usefulness, and had been superseded by better methods.

Third.—Among modern instruments, the apparatus originally devised by Dr. C. F. Taylor had justly occupied a prominent position, but since *extension*, *fixation*, and *rest* were the indications in every stage of the disease, it did not enforce those indications as well as did the solid plaster-of-Paris jacket or the double jacket with continuous extension. It pressed upon the seat of lesion, and, by pressing upon a comparatively small portion of the body, it was very liable to set up local irritation at the points where pressure was made.

Fourth.—The solid plaster-of-Paris jacket was one of the most creditable innovations of modern surgery for the treatment of caries of the vertebræ, the introduction of which has placed the medical profession and humanity under lasting obligations to Dr. Joseph Bryan and Prof. Lewis A. Sayre. But it was objectionable:

1. Because it required suspension of the patient, which involved more or less of annoyance and pain, and required a complicated apparatus.

2. It did not secure continuous extension.

3. It did not hold the extension obtained by suspension before the application, because it became loose, thus allowing the upper portion of the body to telescope down upon the lower, defeating the object for which it was originally employed.

4. It involved pressure upon the seat of the disease, interfering more or less with the reparative process, and caused unnecessary trouble in the management of whatever ulceration might exist.

Lastly, foreign bodies were liable to lodge beneath the jacket and necessitate its removal and readjustment.

The "Double plaster-of-Paris Jacket, with Extension Bars," heretofore described, he believed obviated those difficulties, since (*a*) it could be applied without suspension; (*b*) it involved pressure alone upon the sound structures, leaving the circulation free and unimpaired at the seat of lesion, where active repair was needed; it allowed ready access to ulcerating surfaces when these existed; (*c*) foreign bodies could be removed without removing the dressing; (*d*) by means of the *extension bars*, the *extension* and *fixation* could be daily regulated with mathematical precision, and could be constantly maintained without changing the dressing, no matter how much the jackets themselves might stretch or the tissues atrophy; and he held that that *continuous extension* not only tended to cure the *disease* more rapidly, but at the same time, while the diseased structures were soft and yielding, it would correct the *deformity* more thoroughly than any other method.

[Dr. Wyeth expressed his obligations to Dr. G. D. Burr for the assistance he had rendered in the management of the case, and credited him with the suggestion of perforating the zinc plates to make them more secure.]

The paper being before the Society for discussion,

Dr. Frank H. Hamilton remarked that it was just one hundred years since Perceval Pott threw the first light upon the pathology of the malady in question, and explained satisfactorily certain peculiarities by which it was characterized.

At that time he reflected the views of surgeons with reference to treatment, and his plan was to place the patient in the recumbent posture and make an issue upon the back. Fortunately no child would submit to the latter without assuming the recumbent posture, and it was a question whether the posture or the issue brought about the results obtained. It had been reserved for English and American surgeons to advance a step beyond the now prevalent practice in Germany and Austria, and to discover that these cases could be treated successfully in the *erect* posture and with the patient walking about. Still holding to the view that fixation and rest were absolutely necessary to a successful issue of the case, American surgeons maintained that these could be secured while the patient was in the erect posture. Our apparatus had been so modified and improved that it permitted locomotion, and at the same time fixation and rest to the parts, thus enabling the patient to derive the benefit which came from physical exercise in the open air. Until now, the principle of extension had not entered into

our methods of treatment, and he was not prepared to accept the proposition of the author of the paper, even in the light of the remarkable case which had been reported. No other experimentation in that direction had been made, and he was therefore driven to resort to theoretical objections merely. The case reported was a remarkable one, and the cure creditable to the surgeon who had it in charge; but Dr. Hamilton was not prepared to accept it as a plan of treatment for caries of the spine. He could not recognize the exact parallel between these cases and cases of joint disease, in which it was usually believed that extension was useful. His objections to the apparatus, as described by Dr. Wyeth, were, first, anatomical. It was impractical, because extension of the spine could not be made and sustained. It was not possible to make permanent extension from the head. The attachment of the head to the atlas and the axis was by ligaments which were unaccustomed to extension; they had not been subjected to that kind of labor, and it was the experience of every man that no considerable amount of extension could be made upon those supports of the head without giving pain. Some of the ligaments had an insertion into the dura mater, and it was not possible for the patient to endure extension of the head sufficient to lift the upper part of the body from the lower part without suffering great pain, and he supposed it would cause death. The only seeming argument in favor of its practicability was found in the experience of orthopedic surgeons who employed apparatus receiving a variety of names, what Dr. Sayre had called a jury-mast, but which he preferred to call a head-rest.

Such apparatus was useful as a head-rest, but not as a means of extension.

He did not believe it was possible to make counter-extension—as opposed to extension from the hips—from the thorax; certainly not from the thorax as a skeleton. The thorax as a skeleton was cone-shaped, with the apex of the cone upward. That fact precluded the possibility of making counter-extension in that direction, unless the chest was expanded to its fullest capacity by a full inspiration and the apparel was applied while the expansion was maintained.

But expiration must follow; and when it occurred, the apparel would lose its hold upon the lower margin of the false and true ribs, and all counter-extension would be removed. When the expiration came, the chest collapsed and telescoped; it must inevitably telescope, and all counter-extension must cease. He thought it was equally impossible to make counter-extension from the lower margin of the ribs upward as it was to make it from the thorax denuded of its soft parts. But the apparel was applied to the thorax covered by the soft parts, which apparently made the upper part of the chest the widest. Now it would seem practical to make counter-extension against the wide part of the thorax, where the resistance would be sufficient to make it effectual. But what caused the increase in the breadth of the chest at its upper part? It was mainly produced by the latissimus dorsi muscles. That could be more especially seen when the arms were raised; the direction of those muscles was changed so that they crossed the axillary space at a lower point, and it would seem that they might afford points of resistance from which counter-extension could be made. But the latissimus dorsi arose from the six lower dorsal vertebræ, the lumbar vertebræ, the sacrum, and the ilium. It arose so low down that if it was to be employed as a point of resistance, the counter-extension was practically made from the same point as the extension was made, namely, from the hips. It certainly was not made from a point above the lesion, even if the lesion was in the middle of the lumbar region or at the junction of the dorsal with the lumbar region. It would not be difficult, also, to show that the pectoral muscles could not be used as points of resistance from which to make counter-extension. Indeed, all experienced surgeons had arrived at positively the same conclusions that the axilla afforded no point of resistance. Now, if all those points were rejected, what was there against which this apparel could mount and find a point of resistance?

Dr. Hamilton also had a pathological objection, which perhaps was not so conclusive as was the anatomical objection to the apparel described by Dr. Wyeth. The basis of the spinal lesion under consideration was inflammation, affecting primarily either the bodies of the vertebræ or their processes, or the articular surfaces, etc. The inflammation might have existed for many months in an obscure form before it was detected by the careful, diligent, and intelligent medical man. If the inflammation had been progressive, it could not exist without producing certain results; in short, there was what was commonly called swelling of the adjacent tissues, which was too painful to be employed as a point of resistance, and therefore offered a certain amount of impediment to continuous extension, were it desirable. He thought that extension was *not* desirable, but that fixation and rest were the most essential elements in the mechanical treatment. All forms of apparel used by American and English surgeons were constructed with the view of obtaining fixation and rest, except occasional loose references had been made to extension. When speaking of extension, however, he had no reference to *erecting* the spine.

All the mechanicians and surgeons had been successful, to a certain degree at least, in relieving the bodies of the vertebræ by throwing the body of the spinal column a little backward, and sustaining it in that position. He believed that straightening the spinal column in that manner had its value, but at the same time he thought it possible that its value had been overestimated as a means of cure.

What was accomplished by various kinds of apparatus was mainly fixation and rest. In other words, they acted as substitutes for muscles, and in that way gave the little patients relief.

The great comfort given to these little patients by Dr. Sayre's plaster-jacket came chiefly from the fact that it was a substitute for the muscles, and, when adjusted, the muscles no longer were made weary by continuous and prolonged action.

Thus far we had gone safely and surely, and as a means for fixation we had apparatus which had a certain amount of security. If Dr. Wyeth proposed to relieve the pressure by absolute extension for any considerable length of time, he did serious mischief to the patient.

Dr. Hamilton also maintained that none of the forms of apparel used had straightened the spine *at the point of lesion.* The spine had been made more erect, the length of the patient perhaps increased by actual measurement, but it came from abolishing abnormal curves in the spinal column rather than from straightening the spine at the seat of the lesion. Reference was then made to a case faithfully and accurately reported in Dr. Sayre's work on Orthopedy, page 383, in which the claim was made that by means of a piece of lead rolled out in the form of a tape, it was demonstrated, with a positive mathematical certainty, that change had taken place in the curve of the spine after extension had been made.

Dr. Hamilton, thought, however, that if Dr. Sayre would carefully look at his own plate, he would at once discover that the angle of curvature at the seat of lesion was not changed, mathematically, a single line, but that the change was almost entirely in the lumbar region.

Dr. Shaffer remarked that he preferred to employ some form of apparatus which was readily under his own control, and his choice was the antero-posterior support of Dr. Davis or Dr. C. F. Taylor. At the time he read his paper before the Society, in June, 1878, [see Medical Record, Aug. 31, 1878] he spoke of a combination method. Since that time he had employed it with satisfactory results. A number of photographs were exhibited. He believed that the change which occurred in the spine in consequence of suspension or extension was not in the pathological curve, but in the compensatory curves. He also believed, although Langenbeck administered an anæsthetic before applying suspension in order to actually reduce the curvature, that it was a dangerous proceeding.

Dr. Gibney gave the record of his observations in 106 cases treated at the Forty-second St. Hospital during the past three years. The observation with reference to the curve had been made by means of the malleable lead while the patient was placed in the prone position and no extension made.

In 92 cases there was no increase whatever in the angle of curvature. In 14 cases there was an increase, varying from one-eighth to one-half inch.

In 68 cases the lesion was in the dorsal region alone, in 11 cases in the lumbar region alone, and in 25 cases in the dorso-lumbar region.

The statistics were reported with the view of proving by facts that there was an apparatus in use which practically met the indications in the treatment of caries of the vertebræ. The apparatus consisted of two steel supports—one fitting around the body under the axillæ, the other fitting closely about the pelvis just above the trochanters—which were joined by four upright bars. Shoulder-straps were used to hold the body in an erect posture; and with the apparatus properly fitted, Dr. Gibney was at a loss to see how any increase of the prominence of the knuckle in the spine could take place. The deformity, however, was not overcome.

Dr. Gibney was not able to understand how permanent extension of the spinal column could be maintained, especially at the seat of the disease; but if the apparatus exhibited by Dr. Wyeth could sustain fixation, it was a valuable device.

Dr. Yale remarked that every one who had had to deal with Pott's disease should receive with favor any apparatus which was able to ameliorate any of the severe symptoms; but he did not feel sure that an advance had been made in that direction by Dr. Wyeth, for the following reasons:

He did not regard the statement that "continuous extension in Pott's disease (in itself a joint affection) is as essential as in the treatment of the diseases of the knee, hip, or other joints," as a sound one. The joints in the vertebral column lacked very many of the elements which entered into the formation of a composite joint. There was less joint than existed at the sacro-iliac junction, or at the symphysis pubis, and yet extension in the proper treatment of disease affecting those articulations was not regarded as necessary. In his opinion, the only reason for resorting to traction or extension was to assist incomplete methods of fixation and prevent attrition of the joint-surfaces, which gave rise to very great suffering. It was a clinical fact that such attrition was not likely to occur in caries of the vertebræ. In the spinal trouble there were no such nocturnal spasms as occurred in connection with hip-joint disease. He regarded it as utterly impossible to make extension of the spinal column, and thought fixation was the chief element in successful treatment of caries of the spine.

Again, he did not regard the statement that "the plaster-of-Paris jacket, as now used, and all other methods fail to meet the indications for the cure of the deformity with the cure of the disease, and often fail to cure the disease," as a valid objection to any plan of treatment.

He had had the good fortune to cure a patient by means of the plaster-of-Paris jacket, and all evidence of kyphosis absolutely disappeared. After six months there were no more symptoms of suffering. Nor could he regard it as a fatal objection to any method of treatment because it sometimes failed to cure the disease. When it was recollected what caries in any part of the body was, and how formidable a disease it became in an ill-conditioned patient, he doubted if any apparatus could be invented which would insure a cure in every instance. A certain percentage of these cases would always prove too great for our surgical skill.

Dr. Post was unable to understand how the comparatively small amount of moisture which escaped from the skin could soften that which, previously applied in a very moist state, had become hard, like plaster-of-Paris.

Dr. Wyeth, in answer to Dr. Post, said he could not state positively that it was absorption of bodily moisture that caused the relaxation of the grip of the plaster jacket, but he could state positively that it did become loose from some cause, and *continuous extension* would remedy this fault.

Dr. Judson referred to an apparatus devised by Dr. Andrews, of Chicago, for the treatment of spinal curvature by extension. The extension was made by adhesive plaster.

Dr. Wyeth remarked, in conclusion, that it was scarcely possible to found a dynasty with one subject, nor could he hope to establish a new principle in surgery upon a single success. Experience alone would determine its efficacy. Should *extension* be impossible or improper, as the distinguished gentlemen who had discussed the paper argued (but which he still believed to be both proper and possible), upon one point all agreed, namely, that *fixation* was essential to success. Accepting that only, he held that the "double jacket," pressing equally upon all of the sound tissues, from which alone fixation should be secured, leaving the diseased structures unmolested, was more capable, by reason of the continuous extension it gave, of sustaining the amount of *fixation* necessary to success than any other method which had been devised.

METRIC SYSTEM.

Dr. M. D. Mann read a preliminary report of the commission on the metric system.

The Society then adjourned.

The Prevention of the Adulteration of Wine in France.—A chemical laboratory has been established in the Prefecture of Police in Paris, in which the wine, liquors, beer, and all other drinks brought into the city will be subjected to a chemical examination. This measure was rendered necessary by the increase in the quantity of adulterated articles sold.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Jan. 16, 1879.

DR. S. S. PURPLE, PRESIDENT, IN THE CHAIR.

VALEDICTORY ADDRESS BY DR. PURPLE.

DR. PURPLE proceeded to deliver his valedictory address and to transfer the duties of his office to the President-elect, DR. FORDYCE BARKER. The address was plain, vigorous, and practical, and contained suggestions upon the following topics:

First—With regard to the meetings of the Academy. It was evident that the discussion of papers had, in the main, proved unsatisfactory. The plan, therefore, suggested by his predecessor, Dr. Flint, that discussion of papers should be postponed for one week after they were read, Dr. Purple believed would be a step in the right direction. He thought the tendency of such a plan would be to draw to the meetings of the Academy the Fellows who were pursuing special investigation, and would give to the Academy a class of papers which at present were confined to small societies with limited membership and feeble vitality.

Second—With regard to Fellowship, initiation fee, and annual dues. Dr. Purple thought the initiation fee far too small, when the benefits given to the Fellows were fully considered. He recommended that it be raised to twenty dollars. He also recommended that provision be made for compounding the annual dues. Reference was also made to the changes which death had produced in the Fellowship, and the names of the deceased Fellows were read.

Third—With regard to the library, its growth, and its usefulness. Within the past two years it had been thrown open for free use by the profession and the public. No public library in this country, with limited money resources, had grown like that of the New York Academy of Medicine. He recommended that a circulating department be at once established.

Fourth—With regard to the necessity of a closer union in the community of Fellowship and the resources of the medical profession.

Passing from these points Dr. Purple referred to the necessity of taking active measures for the liquidation of the mortgage upon the property of the Academy, and also the great need of more extended accommodations for the library and the general meetings of the profession.

With regard to the second measure, he was authorized to say that a pledge of $5,000 had been given by a private citizen, providing the remaining $2,000 of the estimated amount necessary to complete the proposed enlargement of the building was raised by the Academy.

Thanking the Fellows for the uniform courtesy which had been extended to him during the two terms in which he had served as their presiding officer, Dr. Purple introduced as President of the New York Academy of Medicine, Dr. Fordyce Barker.

INAUGURAL ADDRESS BY DR. BARKER.

DR. BARKER then delivered his inaugural address, of which the following is a brief abstract:

After thanking the Fellows for the great honor which they had conferred upon him, he remarked that it was thirty-two years since all the best men of our profession in this city, as he had been informed, united in organizing the New York Academy of Medicine. The necessity for such an organization was apparent, and good men and true co-operated to accomplish the result. The aim was not the mere culture of a special department, but was broad in its scope, taking in the whole domain of our professional work.

Inquiry was then made as to how far it had been successful in accomplishing its mission, as to what it had done for its members, what it had added to literature and science, and what influence it had exerted on the profession and the public.

Dr. Barker here made brief reference to the ethical relations of the members of the profession to society, its standing in public estimation, its work either in the direction of medical societies or in the way of contributions to literature and science *since* the organization of the Academy, and which he believed were in a great measure due to the influence of the Academy.

Thirty-two years ago there was no public medical society in this city whose proceedings were reported, or which added to the common stock of the scientific literature of the profession. The Medical Society of the County of New York was dragging on a bare organic existence, but did no scientific work, and had but slight influence on the ethical condition of the profession.

The Pathological Society was but just commencing its useful career; long might it continue its noble work as an efficient contributor of positive knowledge, and as the teacher of young and old in a most important branch of our science.

Within the last thirty-two years the Medical Society of the County of New York had become an important, useful, and active working body, and had brought out many valuable and scientific papers which had been well and ably discussed before large professional audiences. In addition to its scientific work it had, by the laws of the State, important ethical duties in protecting the community from dangerous and irrepressible pretenders as medical practitioners, and also in preserving the professional morals of all regular and authorized practitioners. Some had had the opportunity of learning, during the past year, how faithfully it attended to its duties, and how sharply it looked for any errors in conduct whether committed wilfully or through thoughtless inadvertence. As most, if not all, the Fellows were members of that Society, the Academy, as a body, could but feel a great interest in its work and regard it as well worthy of confidence and support, and it must be deemed a misfortune to the profession and to science if it was not kept up to its present high standard of excellence. He who would attempt to elevate the one by depreciating the other was a common enemy alike to the Academy, to the County Medical Society, and to the profession of the city.

There were many other societies which were devoted to the cultivation of special departments of medicine, and which were accomplishing much in their spheres by inciting men to work. The assertion, however, was ventured for the candid consideration of all honest and disinterested minds, whether much of that work might not be done much more profitably and effectually in the appropriate sections of the Academy, and in that way the aggregated results would be brought out more prominently for the benefit of the whole profession.

The scientific work which the Academy had done was much more than generally supposed. The aggregate of the printed matter was over *five thousand* octavo pages. Some of the papers which had been read before the Academy must still rank as the best upon the subject. The discussions had been able, and many of them possessed remarkable merit.

Special mention was made of the discussion upon puerperal fever, the inciting cause of one upon the

same subject in the Academy of Medicine of Paris, which was continued more than a year.

Where could be found in the medical literature in any language a more thorough, able, and exhaustive discussion of albuminuria in all its bearings and relations than appeared in the publications of the New York Academy of Medicine?

Dr. Barker then passed to the consideration of the powerful influence which the Academy had exerted upon the profession outside of its scientific work, its papers and its discussions. "Again, as men talk one with another, new modes are discovered of looking at old things, prejudices fade away, and identity of fact and of meaning are found to underlie differences in words, and by comparing their observations and their conclusions with those of others, they correct the former and rectify the latter."

Few, perhaps, had noticed how many works had been published by Fellows of the Academy, and mention was made of those which came to memory: Treatise upon Physiology, by two of the members; the most advanced, original, and complete which have ever appeared in the English language; a large work on The Practice of Medicine; numerous special works, as: On Fevers; On Diseases of the Lungs; On Physical Diagnosis; On Diseases of the Nervous System; On Diseases of Women; On Diseases of Children; On Materia Medica and Therapeutics; On Ovarian Tumors; On Midwifery; On the Puerperal Diseases; works on General Surgery, by two of the members; On Military Surgery; On Uterine Surgery; On Fractures and Dislocations; On Diseases of the Genito-Urinary Organs; On Stricture; On the Venereal Diseases; On Diseases of the Bones; On Diseases of the Ear; On Orthopedy: On Pott's Disease; On Dermatology; On the Medical and Surgical Uses of Electricity, etc., etc.

Dr. Barker believed the assertion was true that the physician whose library consisted exclusively of all the works by Fellows of the Academy, had a better and more useful working library than belonged to a large majority of the profession in this country thirty-two years ago.

But it should be the aim of the Academy to aid the profession in acquiring a higher culture and such superior erudition as could only be attained by access to the literature of the past. For that purpose an earnest effort had been made to gather a library which, at the present time, contained more than 9,000 volumes. In one respect it surpassed all others—namely, that it had the most complete set of all the medical journals which had been published in this country. The remarkable success in gathering the library had been very largely due to the persistent energy of the outgoing President. At the least estimate, $10,000 could not have bought the volumes which he had given to the library.

It was a matter of congratulation that the financial condition of the Academy was so excellent, and that its receipts were considerably in excess of its expenditures.

Dr. Barker then passed to the consideration of the work of the stated meetings.

Most of the organic work of the Academy was done by committees and the Council. Hence no cheap notoriety could now be gained by frivolous speeches on such matters by those who, from incompetence or from a just self appreciation, fortunately never took part in the scientific discussions. Good papers and good discussions were sure to call out full meetings.

It was to be regretted that some of the prominent men in the profession who formerly attended the meetings of the Academy, read papers, and took part in the discussions, were now seldom seen there. It might be that the flight of time had worn out the professional ardor of their youth, or blunted the sense of duty to the profession, and that they had arrived at that happy consummation when they had no more to learn, with no desire to add to their knowledge or correct the errors of others. They had probably settled down in a placid contentment, with abundant means, a good practice, and a conceded position. But if the good hearts and sound principles of such could be aroused to action, they would cheer and encourage by their presence, and if they took no part in the work they would still be useful members by being ornamental.

Delicate allusion was made to another fact. A very few, he was happy to say, of the conspicuous members had deserted the standard, and had resigned the Fellowship of the Academy. Such action, he believed, resulted either from misconception or misinformation, or bad logic or bad judgment. He would not say that the Academy could better afford to do without them than they could afford to keep aloof from the Academy, but he would say that it was to be hoped that some of them would in the future retrace their steps. He thought he could venture to say for such, "'still the lamp holds out to burn," [he would not complete the couplet] and that they would be warmly welcomed back, as they would doubtless bring forth fruit meet for repentance by good scientific work, and by liberal contributions to the library and to the treasury.

Those who warmly sympathized with the aims of the Academy, and who would zealously co-operate in its good work, were welcomed. "From malcontents, croakers, and pessimists, good Lord deliver us."

With reference to papers it was to be hoped that those best qualified by special study and experience to discuss them would make due preparation, in carefully maturing their ideas, and thus secure a facility in clear and lucid expression. The Academy wanted no crude, ill-considered statement of fact, no frivolous effervescence of the moment. It would humanely spare all from making a pitiable, even though it was a ludicrous exhibition of folly and ignorance. The meetings of the Academy could not become the arena for the display of garrulous imbecility, pretentious assumption, or, to borrow a phrase from Dr. O. W. Holmes, "the flippant loquacity of half-knowledge."

Reference was then made to the volume of Transactions and the possibility of making it pay the expense of its publication.

The zealous co-workers, the Medical Journal Association of the City of New York, were some years in advance of the Academy in a successful effort to furnish for their members access to all the current medical literature in the department of medical journals and monographs. Their effort was one worthy of all commendation, and its usefulness to themselves could not be too highly estimated.

Dr. Barker believed he expressed the hope and the wish of the Academy, that its walls might be soon extended, so that it might, at no distant day, give house room for all accumulations of that character "without money and without price" that the Hall of the Academy should always be open to the profession from all parts of the State and the country, in which they would be hospitably welcomed, and in which they would be sure to find every medical work, every medical journal in all languages, every essay, and every paper known in medical literature. Might he not feel assured that all the Fellows of the Acade-

my would heartily co-operate with him in every effort to bring about that result as speedily as possible.

After the address $800 were secured by voluntary subscription towards the two thousand dollars desired for building purposes.

The President announced that Dr. T. Gaillard Thomas would read a paper at the next Stated Meeting.

The Academy then adjourned.

Special Meeting, January 30, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

A NEW METHOD OF REMOVING SUBMUCOUS AND INTERSTITIAL FIBROIDS OF THE UTERUS.

DR. T. GAILLARD THOMAS read an interesting paper upon the above subject. It was limited to the consideration of surgical procedures most applicable to the removal of interstitial and submucous fibroids.

The key-note to the modern advance in this subject was struck by Dr. W. S. Atlee, who, in 1853, presented an essay to the American Medical Association "On the surgical treatment of certain fibroids heretofore considered beyond the resources of our art." Both in Europe and in this country the lead of that bold surgeon had been followed, and his method had come to be recognized as legitimate surgical resources.

Dr. Atlee's views could be embraced under three propositions:

1. If a non-pediculated tumor could not, from the nature of its attachment and envelopes, be expelled or drawn by mechanical means through a dilated os uteri, it was advisable to make by the knife a means of escape for it into the uterine cavity, through its capsule or enveloping tissues.

2. If the tumor thus offered an outlet could not be removed, it should be forced into and out of the uterine cavity by the persistent use of ergot and cutting the cervix.

3. The tumor, once coming within reach, it should as soon as practicable be enucleated and removed by the surgeon.

That that method of treating such cases was attended by the great dangers of septicæmia, peritonitis, hemorrhage and exhaustion, was not to be denied. But a policy of watching, waiting, and inactivity was by no means always a safe one.

Interference, however, should not be practised unless impending danger urged a resort to it.

Removal of these tumors by strangulation was a method which at the present time every cautious surgeon was averse to.

The plans now usually adopted could be summarized as follows:

Excision, torsion, avulsion, ecrasement, enucleation, and the production of sloughing. To all those, serious objections attached. Aside from certain difficulties attending its performance, *excision* was often impracticable. Torsion could be applied only to pediculated tumors. *Avulsion* and *enucleation* were difficult of accomplishment and slow of performance, and the patient was in danger of sinking in consequence of exhaustion. *Ecrasement* frequently failed to remove the entire growth, and left the uterine attachment to decompose and cause septicæmia. Removal by the process of *sloughing* insured so certainly septicæmia that it should be regarded as unwarrantable.

One of the great objections to the use of *ergot* was its tendency to impair nutrition, and produce death and consequent decomposition of the neoplasm. The object of the paper was to offer a plan which experience had led him to regard as superior to any yet adopted, and which he believed would supersede them with all who were willing to give it a trial.

The method consisted in seizing the most dependent and accessible part of the tumor with a strong vulsellum forceps, passing along its sides the *serrated scoop, or spoon-saw*, and by a gentle pendulum motion from side to side, sawing through the attachments of the tumor and forcing it entirely from its connection with the uterus.

The advantages claimed for the instrument were the following:

1. The attachments were separated by a saw which greatly limited hemorrhage.

2. The shape of the spoon, convex without and concave within, caused it to follow of itself the contour of the tumor, and at the same time protect the uterine tissue.

3. The highest attachment could be as readily reached as the lowest.

4. The saw action secured separation with rapidity and with certainty.

5. The spoon-saw secured separation of the growth at its highest point of attachment, and left no pedunicle to decompose.

To illustrate the advantages which the new method possessed over the old methods, a number of cases were first reported, and then followed by the report of a number of similar cases operated upon by the method just described.

CASE I.—Large fibroid expelled through an opening made in its capsule. An artificial os was made, and the tumor left to be delivered by uterine expulsion. Decomposition occurred; the process of delivery was tedious, but the patient finally recovered.

CASE II.—Ergot treatment. Presenting part of the tumor became offensive and gangrenous. The patient suffered markedly from exhaustion and septicæmia. A portion of the tumor was subsequently removed by the écraseur, a part by enucleation, but it was only with the greatest difficulty that the uterus was emptied. The tumor was about the size of a cocoanut.

Dr. Thomas was confident that, by means of the spoon-saw, he would have been able to accomplish in ten minutes what required an hour by the method employed.

CASE III.—Submucous fibroid enucleated during the process of septic fever. Recovery.

CASE IV.—Small tumor; weight, four ounces; shock great; hemorrhage trifling; enucleation; operation for its removal occupied one hour. He was confident that with the spoon-saw the operation could have been performed in eight or ten minutes, and that the shock would have been much less.

Cases to the number of seven were reported. In the last three the growth was not entirely removed by the operation; but Dr. Thomas's firm conviction was that, if he had to deal with these cases now, he would be able to completely remove the tumor in each case.

The cases reported were not selected because they illustrated difficulties, but they were really only average cases in that respect.

Six cases were then reported in which the tumors were removed by means of the spoon-saw.

METHOD OF DETERMINING THE EXTENT OF THE ATTACHMENT OF THE TUMOR.

Before relating their histories, a description was given of a new instrument, and a new method of determining the extent and situation of the attachment which the tumor had to the uterine wall. After try-

ing various methods, he had fixed upon the use of the *flat whalebone sound*.

In order to ascertain the outline of the tumor and the extent of its attachment, the index finger of the left hand was placed against its most accessible part, then the sound was passed up along the side of the tumor until it became arrested. The sound being then withdrawn and the finger kept upon it, it was laid upon a sheet of paper, and being curved, a line was drawn from its tip to the indicating finger. The same was done upon the opposite side of the tumor, and in that way an approximate and wonderfully exact idea could be obtained with reference to the situation and extent of the attachment.

Case I. The attachment occupied one entire side of the uterus to within an inch of the internal os. The patient was etherized, placed in Sims's position, and his speculum was introduced. The spoon-saw was used and the attachment separated in a few minutes. By other methods certainly half an hour would have been required to perform the operation. The tumor weighed seven ounces and a half. The patient made a good recovery.

Case II. was one in which he assisted Dr. A. C. Post at the Presbyterian Hospital. The tumor weighed seventeen ounces, was attached about three-eighths of its circumference, and the separation was completed in forty minutes. The patient made a good recovery.

Case V. was one in which Dr. Thomas thought the separation of the attachment could not have been made with any other instrument without opening the peritoneum. The tumor weighed eight ounces, was interstitial, and well-nigh filled the pelvic cavity.

Case VI. was one in which the tumor could have been removed easily by some of the ordinary methods, but by the method employed its removal was made much easier.

Dr. Thomas was so sanguine and thoroughly convinced by his experience, that he unhesitatingly recommended that the use of the spoon-saw should supersede all other methods in the removal of submucous and interstitial uterine fibroids. He would say that, in any case in which the vulsellum forceps could be fixed in a fibrous tumor of a size sufficiently small to admit of its delivery by the vagina, detachment of it from the uterus could always be accomplished by this method. The accident of cutting into the peritoneum was less likely to occur than when enucleation was employed.

DELIVERY OF LARGE TUMORS FROM THE VAGINA, AFTER THEIR EXPULSION FROM THE UTERUS.

Any tumor which could be completely accommodated in the pelvis could be delivered without diminution in bulk; but sometimes a projecting part of the tumor might fill the pelvis completely, and still a larger portion might remain above the superior strait, which could not be drawn through without mutilation. Under such circumstances, he recommended the following methods of delivery:

1. Seize the tumor with strong forceps, draw it down, sever the distended perineum to the sphincter ani, partially or completely invert the uterus, detach the tumor by the spoon-saw, replace the uterus at once, and close the perineum by sutures.

2. Successive sections of the tumor might be cut away by means of the galvano-cautery wire.

3. A large trocar and canula, or the actual cautery, or the trephine obstetric perforator, might be used to channel up the middle of the tumor, and then, with a strong pair of scissors or osteotome, pieces could be cut out, and the tumor so diminished in size that it was susceptible of delivery.

That either of those ways was better than enucleation or the production of sloughing, he had not the slightest doubt, from his own observation and experience.

The paper being before the Academy for discussion,

Dr. A. C. Post remarked that in the case referred to by Dr. Thomas, in which the operation was performed at the Presbyterian Hospital, he found much advantage to arise from passing a strong ligature through the projecting part of the tumor, thus giving him a more powerful means for making traction than by the use of the vulsellum forceps alone.

He believed it would have been impossible to detach the upper part of the tumor without the use of the serrated spoon. The instrument worked smoothly and pleasantly, and when the tumor was entirely detached an effort was made to extract it through the cervix uteri, but he was not able to withdraw it in that manner. He then made a series of radiating incisions in the tumor, and it was removed without further difficulty. For a number of days the uterus remained exceedingly soft, like a piece of wet buckskin. There was considerable hemorrhage at first, but it was easily controlled. There was no bleeding subsequently, and at the end of two months the patient's health seemed perfectly restored.

Dr. T. Addis Emmet remarked that he had had no personal experience in the use of the instrument especially recommended, but he was pleased with the report made by Dr. Thomas, for he knew of no other means of operating by which such good results could be obtained. He was satisfied, from the shape of the instrument, that it was far superior to the écraseur, which he had not used in any case of the kind for many years. Without the report of the cases by Dr. Thomas he should have raised an objection to the use of the instrument—the same objection which he had against enucleation, and that was the danger of blood-poisoning from leaving so large a cavity with a surface favorable for absorption. But there were many cases in which that risk must be taken. The tumor might be so large that the uterine wall had not sufficient strength to drive it into the vagina, and an operation became necessary, and operative procedure also became necessary for the removal of very small tumors.

Some ten or eleven years ago he employed an instrument something like the one presented by Dr. Thomas. It consisted of an iron finger-nail, as it were, a shell which was slipped over the finger, and he found it to work very satisfactorily in sawing out the tumor. The only objection to it was the fact that the finger soon became tired, and for that reason its use was abandoned.

About the year 1865 he operated for the removal of a fibroid which was attached to the fundus of the uterus. The tumor was drawn down, the écraseur applied, and he was quite certain that it was removed close to the junction. The patient, soon after the operation, began to show symptoms of blood-poisoning, and finally died. At post-mortem he obtained a lesson which he had ever since remembered. It was found that a large portion of the tumor had been left in the uterine wall, and the explanation was that the traction had pedunculated the tumor, so that when removed by the chain the cut was made at some distance from the uterine junction. Since that time he had followed the rule, as far as possible, to wait until the tumor had been driven into the vagina. As soon as the tumor reached the vagina we had a guaranty

that there was sufficient uterine tissue to drive it down, and then it could be removed piece by piece without injury to the uterine cavity. An attempt to deliver by traction might be made, thus bringing on labor-pains and imitating Nature.

But there were cases in which such a plan of treatment could not be adopted, and there was no other resort except the plan recommended by Dr. Thomas. Certainly the old plan of enucleation had been attended with the greatest danger in cases of large tumors. He believed, therefore, that the plan given by Dr. Thomas was a valuable one for the removal of *large* tumors and *very small* tumors.

With reference to the removal of large tumors which had been driven into the vagina, he did not recommend dividing the perineum or entering the uterine canal at all. The fact that the tumor was in the vagina was evidence that there was sufficient uterine tissue to drive it out, and as soon as it was cut loose it could be readily removed and the result was always good. The only time we were obliged to enter the uterus was when the pedicle was divided, and the pedicle was always attached at the lower portion of the uterine wall. He had in that manner removed several tumors weighing between seven and ten pounds, and the operation was attended by less risk than when the uterine cavity was invaded.

He should employ the instrument devised by Dr. Thomas, anticipating good results from its use.

Dr. A. J. C. Skene, an invited guest, remarked that he had operated once in the manner recommended, and in a case which he thought tested the capacity of the instrument fully as much as did any of the cases reported by Dr. Thomas. It was an interstitial fibroid occupying the anterior wall of the uterus. Eight years ago the tumor projected far enough down to press upon and distend the perineum. Considerable blood had been lost. He resolved to remove as much of the tumor as possible, and the operation was performed by means of the galvano-cautery. The operation controlled the hemorrhage for a time, but the tumor returned. The patient passed from under his observation, and he supposed that she was dead. This winter she reappeared, and he found her in such an exceedingly anæmic condition that he despaired of saving her life. The tumor projected so far down that he was unable to reach the os uteri. He was unable to control the hemorrhage by ergot; he could not use the tampon. All other means failed, and operative procedure afforded the only chance for saving the patient's life. He feared that his patient would die before the operation could be completed. To avoid hemorrhage as much as possible, the capsule of the tumor was divided by the thermo-cautery. He then used the serrated spoon, and being unaccustomed to its use, half an hour was consumed in the operation. The tumor was easily removed, notwithstanding the cicatricial tissue resulting from the former operation; there was no hemorrhage, and the patient made a good recovery. After removal of the tumor, the finger was introduced and the fact ascertained that he had passed closer to the peritoneum than he wished to go again. The cicatricial tissue and the anæmic condition of the patient submitted the operation to a severe test, yet the result was eminently satisfactory.

Dr. Bozeman thought that by the use of the instrument presented by Dr. Thomas a more effectual removal of the tumor could be made than by means of the process of enucleation or any other method. In that respect great advantage doubtless would follow its use, because of the avoidance of the liability to blood-poisoning.

Dr. Lawrence Johnson referred to the satisfactory result obtained in the case which Dr. Thomas saw with him, and had included among those which he had reported.

Dr. H. T. Hanks asked Dr. Thomas if he would perform the operation in a case in which the pelvic cavity was filled with a uterine fibroid and a fœtus existed above it at full term of utero-gestation.

The President said that he wished to call forth from the author of the paper remarks which seemed necessary with reference to certain points, in order to make the discussion as complete and valuable as it should be to the profession at large. Such operations, performed by experts, might be perfectly safe; while, in the hands of our compeers who failed either from lack of the same knowledge, or from the lack of manual dexterity, or from the lack of prudence and caution, they might result as disastrously as from erroneous judgment with reference to the propriety or the mode of performance.

It was well known that a certain class of uterine fibroid tumors disappeared either spontaneously or under the influence of medical treatment. It had fallen to his lot in several instances to see fibroid tumors of the uterus of very large size disappear.

In one case, which was also seen by the author of the paper, the tumor was extremely large, the abdominal and the pelvic cavities were filled by the growth, the woman became pregnant and went to the full term of utero-gestation twice, severe hemorrhage occurred repeatedly, and yet the tumor had entirely disappeared, and the woman had been restored to good health.

He also referred to a case which came under his observation in Brooklyn twenty-five years ago. In that instance the patient nearly lost her life several times from hemorrhage produced by the uterine fibroid, but the tumor finally disappeared, apparently spontaneously, and the woman was restored to health.

We were aware, also, that a certain degree of success had been attained in the treatment of uterine fibroids by the use of ergot, hypodermically or otherwise. He made the remarks with the special view of calling out a statement with reference to the indications for the operation recommended.

Dr. Thomas, in closing the discussion, first referred to a case which gave answer to the question asked by Dr. Hanks. He was called in consultation to see a case in which a uterine fibroid was so attached that it gave space for the development of a fœtus, and yet was so large as to almost completely fill the pelvis. Every legitimate effort was made to effect delivery of the child by the natural passages, but it was found impossible. The head was almost entirely above reach. It was regarded as almost absolutely certain that craniotomy would result in the death of the mother as well as the child, and resort was made to Cesarean section.

Under such circumstances he would *now* proceed at once to remove the tumor by the method described, and then deliver the child. At the time he saw the case he did not know of the method, and there was no possibility of its removal by any of the old methods.

Dr. Barker had made allusion to the fact that fibroid tumors of the uterus sometimes disappeared either with or without treatment, and had asked that he should give his opinion with reference to the indication for the performance of the operation.

In answer, he referred to a statement made at the commencement of his paper, namely, that interference should not be practised in these cases unless impending danger urged resort to it.

It was his custom to state to medical students that the man who performed any operation for its removal simply because of the existence of a uterine fibroid, was absolutely culpable. In no case should interference be made unless impending danger required it.

For example, in such cases as those operated upon by Dr. Post and Dr. Skene, in which there was no probability or possibility of arresting the hemorrhage by the use of ergot or other means, he believed that we were called upon to interfere by operative procedure.

In the case which he saw with Dr. Barker, he thought the doctor would recollect that the tumor disappeared at the time of the menopause.

If the patient could be kept along until the menopause arrived, there was a prospect that the tumor would disappear. But suppose that the menopause was ten or fifteen years distant, the patient became anæmic from hemorrhages, the feet became swollen, etc.: a continuation of that condition certainly would end in death, and operative interference afforded the only chance for saving the patient's life.

In certain forms of pedunculated tumors almost any form of operation would answer an excellent purpose.

He would restrict the use of the spoon to such cases as those in which the attachment of the tumor was so great that it would not in all probability be naturally delivered—cases in which separation of the tumor and nothing else would accomplish that result. In such cases he recommended the operation and brought it forward as one to supersede all others, because it was readily performed and was a safe method of removing such tumors.

The Academy then adjourned.

Correspondence.

COOL ACIDULATED WATER IN CYSTITIS.

To the Editor of the Medical Record

Dear Sir:—By your kind indulgence I will occupy a corner in your valuable journal, by way of explanation:

In a previous number (January 11th) of the Record, Dr. C. H. von Tagen, of Chicago, Ill., criticises my letter published in the same journal for December 28, 1878, in (1) that I did not state the quantity of cider-vinegar used to the four ounces of water, and (2) asks the question "where" (I) "he obtained 'cold spring or branch water' at a temperature of 70° or 80° F? (was the water first warmed?)"

(1.) Cider or apple-vinegar is not officinal, and as manufactured and used at the different houses in the country is of very variable strength, as fermentation was or was not complete. Some specimens have not half the strength of others; one may be too weak, the other too strong, without dilution, for pickling purposes. Of the former, one part to one of water; of the latter, one part to three or four of water, would not be too strong.

(2.) As there is no mark on the thermometric scale above which is cool and below "cold," the term "cold" was used relatively—*i.e.*, in the sense that anything coming in contact with the healthy body and producing the sensation of cold, is "cold," though I believe to temperatures above 60° or 70° F., and not warm nor hot, the term "cooler" is applied, and is, in my humble opinion, a very indefinite term—cold, cool, warm and hot respectively running into each other by insensible gradations.

In preparing the injection in the last case (for I did not prepare that in the first) the temperature of the fluid, either before or after the vinegar was added, was not taken, consequently I could not know exactly how cold or cool (if preferred) it was, or I would not have used the term "about" in both cases before the figures indicating the degree of temperature. I knew the water at the spring, from which the first case was treated, to be *warmer?* (not so cold) than is usual for spring water, and estimated the temperature at about 60° or 65° F. If the water from the spring, before it was used, remained any considerable time in the house, at a temperature that prevails at that season (July), it would approach the temperature of the circumambient atmosphere, and the addition of the vinegar, which had stood for days in the house, would still further raise the temperature to probably 75° or 80° F. In the second case I *estimated* the water, used in the injection, at the spring at 53° F., which, by testing, I find to be the average temperature of the springs of the county. The water was fresh from the spring, and quite cold, but the vinegar was very weak, so I had to use as much of the latter—which was much warmer than the water, from long standing about the house—as of the former. The fluid thus compounded, I supposed, could not go above 70° F., so it was put at that figure. In making these estimates it was my intention rather to go above than below the actual temperature, fearing that I might understate it. In the first case treated the temperature of the fluid injected may have been as low or lower than 70° F.; it was certainly not above 80° F. I am confident the fluid injected in the second case was not above 70° F., and it may have been as low as 60° F. It was my intention, in this case, to use the water *as cold as I could get it* (ice not being obtainable), if, when compounded, the solution had been as low as 53° F., the temperature of the water at the spring.

With regard to the query in the last clause of Dr. von T.'s letter, if he will refer back to the first case treated he will find that I directed the cider-vinegar then because the urine was *ammoniacal.*

Respectfully.

W. H. Brambletti, M.D.

Newberne, Va., January 25, 1879.

DR. MARION SIMS AND HIS OPERATIONS IN VIENNA.

To the Editor of The Medical Record.

Sir:—When I read the article by my friend Prof. Fordyce Barker (with the above caption), in the Record of the 9th November last, I thought I would say nothing more on the subject.

But I changed my mind when, a few days ago, I received the December No. of the *Richmond and Louisville Medical Journal*, in which occurs the following paragraph: "A correspondent of the *Chicago Medical Journal* states that all the patients Dr. J. Marion Sims operated on while in Vienna died within ten days of peritonitis."

I went to Vienna for a special purpose, to remain a month or six weeks, but at the end of a fortnight I was telegraphed to go to London, and was obliged to leave before the object of my visit was accomplished.

While in Vienna I operated on three cases of epi-

thelioma of the cervix uteri; one for Prof. Spaeth, one for Prof. Boehm, and one for Prof. Salzer.

The first was an utterly hopeless case, which, nevertheless, progressed very well for five or six days, when she died of a sudden hemorrhage, the result of a slough between the uterine and peritoneal cavities. The second (Prof. Boehm's, in the Rudolph Hospital) was a very favorable case for operation. The amount of tissue removed was not larger than an English walnut. I fully expected her to get well, but she died of peritonitis in thirty-six hours.

The third (Prof. Salzer's) was a very unfavorable case. The epitheliomatous growth extended far up into the body of the uterus, destroyed the posterior portion of the cervix, and invaded the posterior wall of the vagina, extending down on it for two inches or more. When the vegetations were removed from the vagina the cervix was drawn forward with a tenaculum, and this movement tore the cervix loose from the posterior wall of the vagina, making an opening into the peritoneal cavity large enough to admit an egg. Blood passed freely into the peritoneal cavity; it was sponged out; the ruptured parts were brought together with four interrupted sutures. The operation was completed in the usual way, and the patient recovered without the least drawback.

This is a succinct account of the cancer cases. The first two ought to have recovered, but died. The last one ought to have died, but recovered.

My friends were anxious to see my method of operating, and of course I was obliged to operate on such cases as were presented to me. The only case favorable for successful operation was Prof. Boehm's, the one that died of peritonitis.

I performed but one operation for vesico-vaginal fistula in Vienna, and that was for Prof. Boehm, at the Rudolph Hospital. It was a very bad case, involving the cervix uteri with narrowing of the vagina from dense cicatricial tissue following extensive sloughing. The vagina was so contracted by fibrous bands that the index finger could not be passed through the contracted part to the cervix uteri. I divided the cicatricial bands, and introduced a vaginal dilator, and the next day I operated on the fistula, introducing seven or eight interrupted silver sutures, and the case was cured in a week.

The only other operation I performed in Vienna was amputation of the cervix uteri in a case of procidentia, for Dr. Rokitansky, at the Marie Thérèse Hospital, covering over the stump with vaginal tissue secured with silver sutures.

In all these operations there was but little room for comparing methods between different operators. Dr. Bozeman never operated for cancer in Vienna. He operated only for vesico-vaginal fistula, an operation perfectly devoid of all danger; for, of the hundreds of operations of this sort performed by Dr. Emmet and myself at the Woman's Hospital and in private practice, I think there has never been a death. Therefore there can be no comparison instituted between these simple operations and those serious ones for cancer of the cervix uteri.

The only comparison I heard made in Vienna between my single operation for vesico-vaginal fistula, and Dr. B.'s numerous ones was this: that I took only hours instead of weeks to prepare a contracted vagina for operation; and that I took only thirty minutes to operate on a difficult case of vesico-vaginal fistula instead of three hours; and that the position of the patient for operation and the whole method of operating were in accordance with correct surgical principles, and void of pretension and mysticism.

Thanking my friend Prof. Fordyce Barker for his manly defence of me in my absence, and thanking you for the space you have kindly allowed me, I remain

Yours truly,

J. Marion Sims.

12 Place Vendôme, Paris, Jan. 15, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 1, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Jan. 25, 1879.	0	4	216	1	2	54	0	0
Feb. 1, 1879.	0	9	195	2	4	69	0	0

The Illinois State Board of Health.—The State Board of Health has removed its central office from Chicago to Springfield, and Dr. Horace Wardner, of Cairo, has taken the place of Dr. Rauch as president.

New York Academy of Medicine.—At a Stated Meeting of the New York Academy of Medicine, held Jan. 16, 1879, the following preamble and resolutions were presented by Dr. Hubbard, in behalf of Dr. J. G. Adams, and unanimously adopted by the Academy, and ordered to be published in the N. Y. Medical Record:

Whereas, Samuel S. Purple, M.D., to-night retires from the presidential chair of this Academy, which he has filled for four years with so much dignity and advantage; therefore,

Resolved, That the Fellows of this Academy have great pleasure in testifying to the great success of the administration of Dr. Purple, no less than to the dignified manner in which he has presided and watched over its interests. Under his auspices the Academy has attained to its present high position as a scientific body. More especially in the department of its library and reading-room, to which he has personally contributed so largely, and which have grown up under his fostering care, the Academy have reason to thank him for his distinguished and self-denying service.

Resolved, That the thanks of this Academy are hereby tendered to Dr. Purple, with the wish and hope that we may be still further aided by his efforts in this direction, in which he has shown himself so wise and faithful a counsellor.

Resolved, That these resolutions be published in the Medical Record.

[Signed] Fordyce Barker, *President.*
H. T. Hanks, *Secretary.*

Prof. von Langenbeck, of Berlin, recently celebrated his 68th birthday, and is still vigorous.

Professor Hitzig is soon to become a member of the faculty at Halle, and enter upon his duties as director of the lunatic asylum in that city.

Jacob Moleschott has been elected professor in the University of Rome, Italy.

Pilocarpine in Hiccough.—Dr. Ortille was successful with gmm. 0.025 muriate of pilocarpine in curing hiccough which had resisted every remedy.

The patient was 62 years old, and was suffering from symptoms of cerebral thrombosis. The singultus continued even while the patient was under the influence of morphia.

TREATMENT OF CRACKED NIPPLES.—Dr. Haussmann has found that lint, soaked in a two per cent. solution of carbolic acid, applied to the nipples, and wetted every two or three hours with the same, gives immediate relief to the pain, and causes complete healing (although the baby is still nursed from the nipples) in two to three days.

ASTIGMATISM.—A simple test therefor may be made by ruling an equal number of lines, of equal distances and equal thickness, vertically and horizontally, side by side. These lines should be looked at, the apparently more distinct fixed upon, and then the sheet should be turned 90°. The vertical lines will become horizontal, and it is a check against any inaccuracy in ruling if, with the changed position, the same result with regard to the then vertical and horizontal lines is noticed. This is recommended by M. Javal, the eminent physiologist.

RUSSIAN MEDICAL STUDENTS. "Not only within the colleges and universities are they subjected to the arbitrary rules of this police system, of which all administration in Russia partakes, but outside in their private life they are kept under the strictest surveillance. Being almost all very poor, they herd together in miserable quarters, or occupy small chambers, destitute of every comfort, in the lowest parts of the city. In this state they are liable at all hours of the day and night to be broken in upon by the police, and to have their things turned upside down in the search for forbidden publications, or to be arrested without a moment's warning on suspicion."—*Correspondent in London Times*, January 1, 1879.

M. PAUL BERT, newly elected president of the *Société de Biologie* (Paris), in taking his seat pronounced a fine panegyric of M. Claude Bernard, his predecessor.

DEATH OF PROF. GRANDJEAN.—The FACULTÉ DE NANCY has sustained a heavy loss in the death of Professor Grandjean, professor of therapeutics.

NEUROSES OF THE HEART.—J. Milner Fothergill, discussing the neuroses of the heart, divides the anginose affections into neurosal angina and true angina pectoris. The former is oftenest seen in women at about the climacteric. It is not very dangerous, and is frequently relieved by arsenic. True angina is produced by spasm of the arterioles, which causes a rise of pressure within the heart, and is dangerous or not according to the condition of the heart. It occurs oftenest in men of gouty condition and may be relieved sometimes by iodide of potash.—*Brain.*

TETANUS AND CHLOROFORM. From an analysis of 415 cases of tetanus, Dr. D. W. Yandell asserts that chloroform is the most efficient agent in its treatment, while calabar bean ranks among the least effective.—*Brain.*

OPTIC NEURITIS, by C. L. LUNDY.—In a small pamphlet the history of this disease is very well described, and illustrative cases added.

NITRITE OF AMYL IN INFANTILE CONVULSIONS.—In a case reported by Dr Engel, this agent was successfully used. The parents had lost three children previously by epileptiform convulsions of the same character as those affecting the present case. The child, eighteen months old, has continued in convulsions for five hours, and was apparently moribund, when as a last resort five drops of the amyl were given along with ¼ gr. of morphia. The child at once went off into a quiet sleep.—*Phil. Medical Times.*

MEDICAL JOURNALS.—Fifty years ago there were eight medical journals in the United States. Now there are fifty-three of the regular school, nine homœopathic, and seven eclectic. In the last fifty years, 1630 regular journals and 214 homœopathic have been started. Thus about six per cent. of the former and four per cent. of the latter class have survived.

Great Britain and colonies have 36 journals; France 64; Germany, 96.—*Boston Med. and Surg. Journ.*

OBJECTIVE *vs.* SUBJECTIVE.—The science of the physician is above the assertions of the patient.—RICORD.

INSUFFLATION POWDERS *vs.* NASAL DOUCHE. Dr. H. G. Miller, of Providence, deprecates the use of the nasal douche, and insists all medications should be in the form of dry powder and used by insufflation.—*Proc. Rhode Island Med. Society*, Dec. 18, 1878.

STRAWBERRIES IN CHOLERA INFANTUM.—PROFESSOR STORER, of Harvard, says (*Boston Jour. Chemistry*) he was successful in curing a case of cholera infantum by having *half* of a *strawberry* given to the child *every hour.*

MILK DIET IN CYSTITIS. The *Lancet* of Dec. 7, 1878, reports a case of chronic cystitis (occurring seven years after lithotrity) as having been cured by an exclusively milk diet.

GRAAFIAN VESICLE DURING PREGNANCY. Dr. Slaviansky reports (*Med. Centralzeitung*, Oct. 30, 1878) the case of a woman, æt. 24 years, who died in the third month of gestation, and the post-mortem showed ovarian follicles which were on the point of bursting, as well as recent *corpora lutea.* This confirms the opinion enunciated by the late Prof. Charles D. Meigs, that the development of the Graafian follicles continued during pregnancy.

THE CHAIR OF MATERIA MEDICA AT JEFFERSON MEDICAL COLLEGE.—We understand that Dr. J. Solis Cohen, Lecturer on Laryngoscopy and on Clinical Medicine in Jefferson Medical College, is a prominent candidate for the Chair of Materia Medica, left vacant by the death of the late J. B. Biddle, M.D. The other candidates mentioned are Dr. James C. Wilson, Physician to Jefferson Medical College Hospital, and son of Ellwood Wilson, M.D., the well-known gynæcologist; Dr. W. W. Keen, Physician to St. Mary's Hospital; John J. Reese, M.D., Professor of Toxicology in the University of Pennsylvania; J. Ewing Mears, M.D., Gynæcologist to Jefferson Medical College Hospital, and Professor of Dental Surgery in the Philadelphia College of Dentistry; W. W. Van Valzak, lately elected Physician to Jefferson Medical College Hospital; John L. Ludlow, M.D., Physician to the Philadelphia Hospital, and Dr. Robert Bollins, a lecturer of much repute on subjects pertaining to materia medica.

Just as we are going to press, intelligence reaches us, from entirely trustworthy sources, that the name of Roberts Bartholow, M.D., of Cincinnati, is prominently mentioned in connection with the Chair.

LAPARO-ENTEROTOMY.—Dr. C. Studsgard has recently performed this operation for the removal of a foreign body from the colon. The patient, a man of thirty-five, had introduced a bottle into his rectum for the purpose of stopping a diarrhœa. The bottle was nearly seven inches long and two inches in diameter at the base. He soon began to feel pain, and was

brought to the hospital. He was then chloroformed. The anus was slit posteriorly as far back as the coccyx and the hand introduced, but it could not be passed through the third sphincter, and the bottle could not be reached. The peritoneal cavity was then opened by an incision along the linea alba. The bottle was found in the sigmoid flexure, from which it was removed and the wound in the gut closed with catgut sutures. The operation was done antiseptically. There was some suppuration afterwards, and recovery was tedious, but eventually occurred.—*Lond. Med. Record.*

Graded Examinations for a Degree in the Medical Department of the University of Pennsylvania.—The Faculty at a recent meeting passed a resolution to the effect that in future the students in the Medical Department entering the final examinations for the degree of M.D., should be graded upon a scale of 100, and that, where the individual grade obtained was high, it should be publicly so announced —the man receiving the highest grade to hold the position of head of the class. This system will first be put into operation during the coming March examinations.

The Fifty-third Annual Report of the Mass. Char. Eye and Ear Infirmary, for 1878, is a credit to the surgical staff, Drs. Derby, Shaw, Jeffries, Sprague, Willard, and Blake, on account of the good and successful work accomplished. The report is a model of conciseness and excellent arrangement. "The statistics of cataract operations performed" may be perused with interest and instruction. The officers for the present year are: President, Calvin Ellis, M.D.; Treasurer, F. H. Story; Secretary, E. I. Browne.

Utilization of Bacteria—Hyperdistention of Abscess.—Dr. Byron DeWitt, of Oswego, N. Y., sends us a communication with the above heading. The "gist" of the paper may be summed up as follows: A girl, æt. 14 years, suffered from a ranula, which progressively increased in size, in spite of several lancings. Attaining a disfiguring size, it was excised by an eminent New York surgeon. It recurred, and was again removed by excision, and a caustic applied to the open wound. A second time it recurred, and the tumor reached "from the symphysis of the lower jaw to the parotid gland, and half way to the clavicle," when the case was brought to Dr. DeWitt. This gentleman passed a seton in the form of a loop within the tumor, the loop lying upon the floor of the mouth, the ends of the silk being brought out through two separate points of the skin over the swelling. Acute suppuration occurred within the latter and the abscess was opened on the sixth day, discharging a large amount of fetid pus. The seton was left *in situ* for over four weeks, and then removed. The suppurating wound healed promptly. At the end of four years the disease had not recurred.

Dr. DeWitt thinks the acute and putrid suppurative action was set up through the medium of something other than the mere presence of the seton, and believes it was due to the introduction of microscopical germs (bacteria) upon the threads, or by their "worming their way into the sac through the opening made by the needle." Be this as it may, the doctor deserves credit for the success of his treatment of this obstinate case.

Sulpho-Thymate of Quinia.—Signor Cozzolino recommends the *sulpho-thymate of quinia*—a compound of sulphuric and thymic (thymol) acids and quinia—as worthy of ranking beside the sulpho-carbolate or salicylate of the same alkaloid. It is freely soluble in acidulated water, in ether, and in alcohol. Dose is the same as the above-mentioned salts. He also calls attention to soda-thymate as a pleasant carminative (dose: 0.50 gmm. for infants; 3.00 to 4.00 gmm. for adults) mouth-wash in aphtha and muquet, as an injection in vaginal, uterine, and vesical affections.

Fracture of Olecranon.—Mr. Heath, in commenting to the class upon a case of fracture of the olecranon brought into University College Hospital, with a long splint applied and the hand bandaged from the tips of the fingers, said he thought it was time such directions were abolished from surgical works.

Treatment of Baldness.—The following is highly commented upon by Dr. George H. Rowe, in the *Atlantic Medical and Surgical Journal*, for seborrhœa and consequent alopecia. It is the plan of Professor Kaposi: ℞. Saponis viridis (German), alcoholis, āā.f. ℥ij.; solve, filtra, et adde ol. lavandulæ, gtt. xx.—xxx. Pour one or two tablespoonfuls upon the scalp, then pour on a little water, rub smartly with the fingers, thus producing a copious lather. After four or five minutes' shampooing this way, rinse the head thoroughly with pure water, then dry thoroughly with a towel. Then apply a little cosmoline. This process causes the hair to fall out in greater abundance at first, but a new and fine growth of hair soon follows.

Icteric Urine.—Jaundice may be diagnosticated by an examination of the urine with tincture iodine. Pour a little of the tincture upon the urine, do not shake the tube, and three distinct colored layers may be seen—first layer, violet, the tincture itself; below this, a sea-green layer; and the last, the urine in its original color.

Treatment of Blepharitis by the Application of Vulcanized India-rubber.—The treatment consists in the application every evening to the affected eye of a round plate of caoutchouc, which is covered with a compressive bandage. In the morning the apparatus is removed, and the eye washed with warm water. Dr. Roy reports several cases treated in this way, with very gratifying success. The only phenomenon noticed, on removing the apparatus in the mornings, was a slight redness of the eye.—*Lyons Médical.*

Treatment of Whooping-cough by the Tincture of Myrrh.—According to Dr. Campardon, pertussis yields readily and easily to the tincture of myrrh. He gives fifteen drops in a tablespoonful of Vichy-water every hour or every two hours. This treatment, however, must be combined with the appropriate treatment for the bronchitis or the pulmonary congestion.—*Lyons Médical.*

Treatment of Cerebral Apoplexy by Injections of Ergotine.—Mr. Foster reports two cases of pronounced apoplectic coma, which were treated by the injection of twelve drops of a solution of ergotine, containing seven and a half grains to the drachm of vehicle. In both cases the coma disappeared soon, and recovery took place. The essential condition for the success of the treatment is, that the injection be administered at the beginning of the attack, before there has been time for an extensive extravasation of blood. Mr. Foster recommends injecting the fluid between the muscles of the forearm, and not merely under the skin, where it is liable to excite suppuration.—*The Lancet.*

Original Lectures.

A CLINICAL SURGICAL LECTURE.

DELIVERED AT BELLEVUE HOSPITAL,

By LEWIS A. SAYRE, M.D.,

PROFESSOR OF ORTHOPEDIC SURGERY AND CLINICAL SURGERY IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

SACRO-ILIAC DISEASE, AND ITS DIFFERENTIAL DIAGNOSIS FROM MORBUS COXARIUS AND SPONDYLITIS.

GENTLEMEN:—We have before us to-day two cases of sacro-iliac disease in the early stage, both of which have been sent to me for disease of the hip-joint; and as this is a mistake so commonly made, and as we also have a child of very nearly the same age of the other two, but who has hip disease in its first stage, I propose to present these cases to you for the purpose of drawing your attention to the minute shades of difference between these two diseases, in order that you may be able to diagnosticate the one from the other without the possibility of an error.

Disease of the sacro-iliac junction is much more frequent than the profession generally suppose, but it is so often mistaken for disease of the hip-joint, or disease of the sacro-lumbar junction, and treated for either one or the other of these diseases for so long a time, that destructive changes occur at the sacro-iliac junction that are sometimes irreparable before the disease has been accurately diagnosticated. It is for this reason that I take the present occasion, with these illustrative cases, to draw your special attention to sacro-iliac disease.

The sacro-iliac articulation is an amphiarthrodial junction between the lateral surfaces of the sacrum and the ilium. The anterior or auricular portion of each articular surface is covered with a thin plate of cartilage, thicker upon the sacrum than it is upon the ilium. The surfaces of these cartilages in the adult are rough and irregular, and separated from one another by a soft, yellow, pulpy substance. At an early period of life, and occasionally in the adult and in the female during pregnancy, they are smooth and lined by a delicate synovial membrane. The ligaments connecting these surfaces are the anterior and posterior sacro-iliac, which generally are so short as to prevent any possibility of motion at this joint; but in certain conditions they become so relaxed as to allow of limited motion, as for instance in the later stages of pregnancy, which allows of an increase in the capacity of the pelvis; but this is a normal elongation. These ligaments may, however, at this time be stretched to such an extent as to be the nidus of future difficulty—the anterior sacro-iliac ligament, which consists of numerous thin ligamentous bands which connect the anterior surfaces of the sacrum and ilium. The posterior sacro-iliac ligament is a strong interosseous band situated in the deep depression between the sacrum and the ilium, behind, and forming the chief bond of connection between these bones. It consists of numerous strong fasciculi, which pass between the bones in various directions. Three of these are of large size; the two superior, horizontal in direction, arise from the first and second transverse tubercles of the posterior surfaces of the sacrum, and are inserted in the rough uneven surfaces at the posterior part of the ilium. The third fasciculus, oblique in direction, is attached by one extremity to the third or fourth transverse tubercle of the posterior surface of the sacrum, and by the other to the posterior superior spine of the ilium; it is sometimes called the oblique sacro-iliac ligament. These ligaments, as I have before stated, are so short as to allow exceedingly limited motion between the bones.

Disease of this joint is, as I have previously remarked, quite common, and I believe invariably of traumatic origin. Nearly all of the cases that I have seen have been directly traced to a traumatic origin. Two of the cases resulted from the children slipping over from the top of a trunk, down between it and the wall, striking upon the posterior crest of the ilium upon the baseboard which passes around the room near the floor. In another—a severe case—the child, while in a swing, which was being thrown backward and forward with great force, struck over this joint against the wall behind him. These blows, or concussions, produce an extravasation of blood under the interarticular substance, which, not being absorbed, forms the starting-point for an inflammatory action; in fact, an ostitis, or periostitis, which, progressing, sooner or later involves the joint, and you have fully developed sacro-iliac disease. Any inflammation at this point produces pressure upon the roots of the sacral nerves, which is made manifest by symptoms at their distal extremities, which resemble in many instances those of spondylitis in the lower lumbar or upper sacral vertebræ. Such symptoms may be: difficulty in urination and defecation, pain in the lower part of the belly, hips, and thighs. But the diagnosis between sacro-lumbar and sacro-iliac disease, or between spondylitis affecting the lower lumbar vertebræ and sacro-iliac disease, is to be made by direct pressure from the sacrum upward, and from the head downward, which, in the case of spondylitis affecting the lower lumbar or sacral vertebræ, will increase the pain, and extension of these parts will give relief. In sacro-iliac disease, however, the pain will not be increased by this procedure, but will be increased by making lateral pressure of the ilii against the sacrum; and by making extension either from the ilium or through the agency of the thigh, relief from pain at the sacro-iliac junction will be given.

The first manifestation of this disease which will probably be observed, will be a peculiar mode of walking, and also of standing. The child will have a peculiar halt in its walk, owing to the fact that pain is produced when the weight of his body is borne upon the limb of the affected side, and he will, therefore, rest the weight of his body upon the leg of that side as short a time as possible, making a quick step with the other leg for the purpose of removing the weight from the diseased one, and upon that leg (the well leg) dwells for a much longer time than the other.

The hip and leg of the affected side are actually longer than upon the unaffected side. In hip disease this elongation of the corresponding parts is apparent and not real, and is dependent upon the obliquity of the pelvis, owing to muscular contraction. In sacro-iliac disease it is actual, owing to the gliding of the ilium downward at the sacro-iliac junction. The actual increase in length can be ascertained by measurement from the umbilicus to the internal malleoli.

I wish now to direct your attention particularly to the different signs between sacro-iliac disease and hip-joint disease, which may be recognized upon inspection. For this purpose we place these two children, standing side by side in a nude state, upon the table, with their backs toward you. We allow them to stand a few moments to get over their excitement and assume their voluntary position; which position will

be that which affords the greatest amount of comfort. You will observe that they both bear the weight upon the right limb, so as to make a solid column to receive the weight of the body. You observe in the little girl (Fig. 1), who has hip disease on the left side, that the gluteo-femoral fold of this side is lower down

FIG. 1.

FIG. 2.

than upon the right side, and that at its external border the crease is entirely obliterated. You observe also that she has her left knee slightly flexed; the thigh of the same side is also slightly flexed, and you will notice that the toes of the left foot are everted, whereas the left foot of the child (Fig. 2) who has sacro-iliac disease upon the left side is projected at the same angle as the right. This eversion of the foot of the child with the diseased hip shows that there is an effusion within the capsule of the joint.

Now inspect the boy (Fig. 2) who has sacro-iliac disease, who, like the girl, bears the entire weight of his body upon his right leg, thus making it a solid column. But you observe that there is no flexion, of either thigh or knee, of the opposite limb, and you see, as I can move it, that he bears no weight upon it, but it is swinging almost clear of the table. This unequal distribution of the weight of the body upon the lower extremities is produced by the patient bending his trunk to the right, thus elevating the pelvis upon the diseased side and allowing the limb, by its own weight, to remove pressure from the inflamed surfaces.

Observe now the trunks of these two children: the boy with the sacro-iliac disease has his body bent to the right, so that a plumb line dropped from his occipital protuberance passes midway between the fold between the buttocks and the trochanter major of the right side; whereas the child with the hip disease stands with her body slightly bent forward, owing to the contraction of the psoas magnus and the iliacus internus muscles. The feet of the child with the sacro-iliac disease are symmetrically projected in front, but the child with the diseased hip has the foot of the affected side abnormally everted.

We now lay these two children upon their backs upon this firm table, as a mattress or soft bed would so accommodate itself to the inequalities of the body as not to serve our present purpose. We will first direct our attention to the child with the diseased hip. As she lies upon her back we lift both of her lower extremities upward until the entire length of the spine touches the table, so that you cannot pass the hand beneath it. We now move the limbs from side to side until we have the pelvis at a right angle with the trunk, so that a line drawn from the centre of the sternum, over the umbilicus to the centre of the symphysis pubis, will be at a right angle to a line drawn from one anterior superior spinous process of the ilium to the other. When these lines are at right angles to each other, and the spinus processes touch the table, the pelvis and trunk are at right angles with one another, and if there be no disease either within the hip-joint or the muscles that control its movements the limbs can be so extended that the popliteal spaces can be made to touch the table without disturbing the approximation of the spine to the table or the rectangular position of the lines drawn from the anterior part of the body before referred to. We now put this principle to the test, and you observe that the girl's right limb falls upon the table, and by pressing over the knee I bring the popliteal space down so as to touch the table, and have made no elevation of the spinus processes at all so long as I hold her left limb in its upright posture. We now drop the left limb upon the table, and you observe how it remains bent at the knee, while the spinus processes still touch the table as before; but as I press the knee down so that its posterior surface touches the table, you see how instantly the curvature takes place in the lower portion of the spine, so that my assistant glides his hand directly underneath; this is owing to the contraction of the psoas magnus and iliacus internus muscles, which is one of the signs of the early stages of hip disease.

We will now try the same experiment with the child who has sacro-iliac disease. Raising his limbs, we have now the spinous processes upon the table, and the lines before mentioned are at right angles with each other. You observe that as I drop the right leg it comes completely down and no curvature of the spine is produced. I drop the other leg, and it also falls to the table. I now press the popliteal spaces of both legs down upon the table without the slightest elevation at any point of the spinous processes from the table.

We now turn again to the child with the diseased hip-joint. You see her left leg is flexed and slightly abducted. By taking hold of it and pressing the head of the femur into the acetabulum, you see that she instantly winces on account of the pain produced. By making slight extension, she says it feels better. When I make extension and attempt to move the limb, you observe that I can flex the thigh only to a right angle before the pelvis begins to move; whereas I flex the limb upon the right side until the knee touches the trunk, and yet the pelvis is not moved. I can abduct, adduct, and rotate the right limb, as you see, with perfect freedom, there being no rigidity of the muscles upon this side. The moment I attempt these same movements upon the left side, you see the entire body moves as if the hip were anchylosed; in fact, the limb and trunk move together like a solid statue. Now while my assistant holds the pelvis still, I take hold of the thigh above the knee, on the diseased side, and make gradual extension for a short time, and you observe that while this extension is continued I can

make quite free motion at the diseased joint, but the moment this extension is removed and the muscles allowed to contract, the diseased surfaces are brought in contact, and now you see no motion is possible, and the limb becomes, as before, rigid and apparently anchylosed at the hip.

We take the little child with sacro-iliac disease, and you observe that I can flex either limb until the knee touches the thorax. I make abduction, adduction, and rotation on one side as well as upon the other, both hip-joints being perfectly normal. By making direct pressure upward, I produce no pain whatever upon the right side, but by making pressure in the same manner upon the left side he winces slightly, which is one of the symptoms of disease within the hip-joint; but, as you observe, this symptom is not connected with any rigidity of that joint, and pain is therefore produced because pressure has been carried through that joint up to the sacro-iliac junction. When I make pressure directly upon the trochanter major of each side, I give rise to only slight, if any, pain, but when I crowd the ilii together you see how instantly he winces under the agony produced. We therefore exclude in his case *all* disease of the coxo-femoral articulation, and locate it in the sacro-iliac junction of the left side.

You will thus see that by a careful observation of the exact position which different portions of the body will assume under the influence of reflex muscular contraction, and the voluntary attitudes which patients will assume for the purpose of relieving diseased surfaces from pressure, and by extension and compression, you are enabled to locate the disease with an accuracy that cannot be mistaken.

By placing my hand over the diseased sacro-iliac junction I observe an increase of temperature over that of the same locality upon the opposite side. In this case it is so marked that it is readily detected by the naked hand, but in many instances it is not so conspicuous. Under these circumstances the variation in temperature between the two can be made evident by the delicate surface thermometer of Dr. Seguin, which I have found of great use in the diagnosis of obscure cases of this sort.

Having now arrived at a positive diagnosis, we are ready to consider the subject of treatment. In the first place, as there is an increased heat or elevated temperature over the seat of inflammation, we shall apply a half dozen leeches and increase the bleeding by warm fomentations, after which we shall apply ice-bags to the part, protecting the skin by one or more thicknesses of flannel between the ice-bag and the skin as may be necessary to give comfort to the patient. During the mean time the patient is placed in bed, and extension and counter-extension upon the sacro-iliac junction is made. This is done by means of strips of adhesive plaster, placed upon either side of the thigh and leg, and secured by a properly adjusted roller bandage. At the end of the strips of adhesive plaster short tabs of webbing are sewed, which extend beyond the heel. A cross-bar connects the ends of these tabs, and from the middle of this cross-bar a cord extends over a pulley at the foot of the bed, and is attached to a weight for the purpose of continuous extension; the foot of the bed is raised eight or ten inches by placing bricks or blocks under the legs so that the body may become a counter-extending force. As the acute symptoms subside, blisters may be occasionally required; and if the disease still continues, it may be necessary sometimes, and often is, to apply the cautery over the sacro-iliac junction. You should apply your iron at a white heat, and carry it firmly and rapidly over the line of the junction. The application of the hot iron will often be found to relieve pain when nothing else will; the actual cautery will produce an impression upon the deep-seated tissues, causing them to contract, and aid in restoring the circulation of the part to its normal condition.

The disease is ordinarily of long continuance, and confinement in the horizontal posture may be injurious to the general health; and it therefore becomes necessary, if possible, to carry out the same principles of treatment, and, at the same time, give the patient the benefit of out-door exercise and fresh air. This can be very readily accomplished by increasing to a considerable extent the thickness of the sole and heel of the shoe to be worn upon the foot of the unaffected side. In order to lift the patient so that the diseased limb will swing clear of the ground, the weight of the limb of the affected side may be all that is required to give ease to the inflamed joint; but if not, it can be readily increased by adding some lead to the sole of the shoe of this side, when, by the aid of crutches, or the aid of a wheeled crutch, the patient may be permitted to take exercise in the open air with benefit to the general health and without injury to the affected joint. When the horizontal position is again resumed, of course the extension is to be applied as before.

Prognosis.—From my own experience in the treatment of a number of cases, some eighteen in number, I should say that the prognosis was good; in fact, in the majority of cases detected in the early stage and properly treated, the result would be a good recovery. In making this statement I am somewhat surprised to find that I differ from almost all other surgical authorities. Dr. Erichsen says, in his Science and Art of Surgery: "The prognosis of this disease is always most unfavorable." . . . . "I have never seen a case recover after the full development of the disease and after suppuration had set in." Holmes, in his System of Surgery, says: "The prognosis in these cases is always unfavorable, but becomes especially so when matter has once begun to form." Ashurst says: "The prognosis of sacro-iliac disease is always unfavorable." Professor Gross, one of our greatest American surgical authorities, says: "The prognosis is always unfavorable; now and then, it is true, a case recovers, but such an occurrence is very uncommon."

Gentlemen, I have now had under my personal attention and observation eighteen cases of this disease, seventeen of whom have entirely recovered. Six of them, when treatment was commenced, had gone to the point of suppuration, requiring a free opening of the abscesses and the removal of more or less necrosed bone. The only death which has occurred among the eighteen cases which I have seen will be found fully recorded in my work upon Diseases of the Joints, page 332; but in this case it will be observed that, after I had made a diagnosis of sacro-iliac disease, the case left me, and was treated for two years for diseased hip-joint. At the end of this time he returned to the hospital for treatment, but died in a few days thereafter; and upon post-mortem examination both hip-joints were found perfectly healthy, but there was a carious condition of both sacro-iliac junctions. May it not be possible that the unfavorable prognosis heretofore so generally given, may be due to the fact that the cases did not come under treatment in their early stage, and that the disease, by being early detected and properly treated, would frequently result in recovery? If such be the case, the time which we have occupied in the consideration of these two cases will not have been in vain.

CLINICAL LECTURE ON SEBORRHŒA.

DELIVERED AT THE PENNSYLVANIA FREE DISPENSARY FOR SKIN DISEASES,

BY JOHN V. SHOEMAKER, A.M., M.D.

SEBORRHŒA OLEOSA.

GENTLEMEN:—The first patient whom I shall bring before you is a young woman, twenty-two years of age, a seamstress by occupation, who has been troubled with a greasy appearance of the forehead and cheeks. The nose, in addition, presents a red, shining, and oily look, with here and there enlarged cutaneous vessels. This is one of the varieties of seborrhœa, and consists in an increase of the sebaceous secretion. It may occur upon any part of the body, and more especially the forehead and nose. The diseased patches, in this case, are attended with a burning sensation. The ducts of the sebaceous glands are so much enlarged that they are apparent to the eye. This unctuous skin has a soiled appearance from the dust and dirt that has adhered to its surface. By rubbing over the parts a piece of blotting-paper the increased secretion is absorbed, and the paper looks as if it had been dipped in oil. This greasy and shining condition of the skin is a source of much annoyance to this young woman, on account of the disfigurement it gives to the countenance. In some individuals the secretion is poured out in such quantity as to collect in clear or yellowish drops over the surface.

Nature has supplied abundantly the entire surface of the body—except the palmar and plantar surfaces—with sebaceous glands, which secrete this peculiar substance. These glands exist in large numbers on the scalp, face, back, chest, scrotum, and labia; and they are the parts that are usually attacked by seborrhœa. This material, called sebum, which the glands secrete, removes abnormal products from the blood, acts as a protection and a defence to the skin, serves to retain moisture in the tissues, lubricates the hair, and gives softness and pliability to the integument. It assists in retaining moisture in the eyes and prevents the lids from adhering. It also prevents the entrance of dust and insects into the external auditory meatus of the ear, and keeps the external membrana tympani and the external canal moist. In certain animals, as the skunk, the fox, and the muskrat, this unctuous substance of the skin emits a powerful odor, which acts as a defence and a protection, and it is likewise a means of making known to each other their hiding-places.

This sebaceous material consists of a fluid principle, olein, and two solid constituents, stearin and margarin. When the secretion increases in quantity, and the fluid part—the olein—predominates, we have a diseased condition, named *seborrhœa oleosa*—the variety of the affection that troubles this patient. On the other hand, should the solid portions of sebum be in superabundance, the affection is then known as seborrhœa sicca, and will appear as scales on the skin.

Seborrhœa oleosa can be caused by any irritation or derangement of any part of the system. It is more common in the female than in the male sex. It occurs especially in those who are out of health, in persons who are anæmic, debilitated, and poorly nourished. It is most common at the age of puberty, when there is much activity of the sebaceous glands. In this case the health of the patient is very much impaired, she is anæmic, and shows strong evidence of having general debility, all of which could easily have caused this affection. Cold winds, negligence of washing, local irritants, nervous debility, and a disordered condition of the internal organs, frequently induce glandular congestion, and so *seborrhœa*.

The treatment in seborrhœa oleosa consists in the use of both general and local remedies. It is necessary, in the first place, for the patient to have plenty of fresh air, daily exercise, and the most nourishing form of food. The iron preparations are required on account of the anæmic condition of the patient. The tincture of the chloride of iron will be the most suitable form, in fifteen-drop doses, three times daily, in a wineglassful of water; should constipation follow, a change can be made to the syrup of the lactate of iron. The liberal use of bitter tonics, the mineral acids, and the preparations of pepsin, are often demanded in this affection.

The local treatment is of the utmost importance. The disease is usually stubborn, and only yields after patient and careful attention to the parts. The patches can be washed frequently with a mild soap, and dusted over with either starch, bismuth, lycopodium, or precipitated carbonate of zinc. The use of the cold bath will be of great service by causing the enlarged glands to contract. The application of a mild stimulating lotion of acetate of lead and sulphate of zinc will also prove very beneficial in many cases.

I would, however, more particularly recommend for this patient a mild, stimulating soap that I call *sapo matricaria et sulphuris*. It is composed of one and a half ounces each of oil of theobroma and olive oil, two drachms of powdered German chamomile flowers, one drachm of precipitated sulphur, and one ounce of a weak solution of caustic soda. This soap has been prepared at my suggestion by Mr. L. Wolff, chemist and pharmaceutist, of this city (Philadelphia). I have several very fine specimens of this soap, which I will pass around for your inspection. You will see it has a very pleasant and agreeable scent. All these spots should be well washed with it every other evening just before retiring.

SEBORRHŒA SICCA.

I next present this patient, Jas. R——, bookkeeper, nineteen years of age, having a large collection of scales over the scalp and a portion of the back and chest. The crown and sides of the head are covered with dry scales and thick crusts, with adherent hairs. Over some portions of the head the crusts are firmly adherent to the scalp, while upon other parts the scales are loosely situated, and in falling off cover the patient's clothes with a scurfy material. Upon removing some of the thickened crusts from the crown of the head, masses of sebum are found to be prolonged down in many of the follicles, some of the ducts are obliterated, and the scalp is also red and swollen. It likewise presents some spots having a dull and withered appearance. The hair is dry, lustreless, very thin, and the patient complains of a constant itching sensation of the scalp. These masses of sebum that plug up the follicles interferes with the growth of the hair, leads to all this unhealthy state of the scalp and the hair, and often ends in premature baldness.

The secretion of these glands that are so abundantly developed on the scalp are very great during the intra-uterine period. The first year of the child's life this excessive secretion frequently continues, and when neglected, and allowed to collect dust and dirt, it irritates the skin, and often produces eczema. In old age, and in syphilis, the scalp is sometimes covered with these dirty, yellowish masses of sebum, which causes the loss of hair in the latter affection.

Upon the patient's back, between the scapulæ, and

over the chest, mainly on the sternum, are dirty yellow crusts in large numbers in both localities. Some of these patches are small, about the size of a silver five-cent piece, and others are large from several of them coalescing. The skin of both the back and chest is slightly greasy, a small number of scales are observed scattered about the patches, and the ducts of the follicles are open and filled with sebum. These sebaceous crusts exist in some cases on the forehead, nose, and cheeks, and both Biett and Bazin relate a case in which the sebaceous glands over the whole surface were filled with inspissated sebum. The genital regions of both sexes are frequently attacked with seborrhœa, on account of the parts being so abundantly supplied with sebaceous glands. In the male, the glandulæ tysonii seu odoriferæ of the corona glandis and of the cervix of the penis secrete a peculiar soft, white and caseous material, which frequently becomes copious, rapidly decomposes, especially when the prepuce is long, gives off an unpleasant odor, and occasionally causes balanitis. In the female these sebaceous glands are situated around the labia and clitoris, and frequently pour out the secretion in large quantity, giving rise to a diseased condition of the parts.

This patient has a tuberculous family history, and it is evident on his countenance. His hair and complexion are both light, and his extremities are cold, showing the feeble state of the circulation. In addition, he has been troubled for some years with constipation, and by this reflected irritation could very easily give rise to this affection. Tuberculous subjects are especially disposed to both seborrhœa and acne. The causes I mentioned in connection with the first case may likewise bring about this same form of seborrhœa, providing the solid principles of the sebum, the stearin, and margarin should predominate.

Seborrhœa might be mistaken for eczema or lupus erythematosus. It differs from lupus in the following points: Should a crust or scale be removed in seborrhœa, it will be found to be prolonged down in the follicle, the skin beneath being pale or slightly reddened; while in lupus the part is both reddened, swollen, and infiltrated. Again, seborrhœa is a functional disorder, and is never followed by scars; while lupus is a new cell growth, and there is always a tendency to repair by the formation of cicatrices.

The treatment for the patient will be both local and constitutional. He should take daily exercise and plenty of good, nourishing food. I shall also prescribe a bitter tonic three times daily, and the extract of malt, one tablespoonful in a glassful of milk, with meals. As soon as the patient's digestive organs are in the proper condition, we will change these remedies for one tablespoonful of cod-liver oil with ten drops of the syrup of the iodide of iron, three times daily, one hour after meals. The following mild aperient pill will be very beneficial for the sluggish condition of the bowels: powdered aloes and rhubarb, each, twenty grains; extract of hyoscyamus, six grains; extract of belladonna, one grain; and oil of cinnamon, one drop. Make twelve pills. Dose, two every other night, when necessary. The crusts and scales must be removed by oil dressings. The patches on both the head and body should be soaked with olive oil until the masses become soft and can be easily removed. If, however, the crusts on the head should still adhere, then a flannel cap, saturated with oil and covered with oil-silk, should be tied on at bedtime and allowed to remain about ten or twelve hours. After the crusts and scales have been thoroughly macerated, the dressing should be removed, and the parts well washed with tepid water and the sapo matricaria et sulphuris. About every second or third evening, a copious lather should be made from the soap, and actively rubbed into the scalp and the patches over the body. The parts should then be sponged with tepid water and rubbed dry with a rough towel. I have used this medicated soap in dispensary and private practice, in seborrhœa and the various scaly eruptions, with remarkably good results. In seborrhœa it will cause the enlarged glands to contract, the skin to become healthy, and the disease to disappear.

After using the soap, the following preparation will be a very good and elegant application to lubricate and soften the dry condition of the hair and the scalp: beef marrow, two ounces; white wax, half an ounce; tannate of quinia, one drachm; balsam of Peru, three drachms; oil of rose, five drops; oil of verbena, three drops; essence of ambergris, one-half a drachm. Mix, and use daily as a pomade.

Original Communications.

ACUTE INFANTILE INTUSSUSCEPTION, WITH THE HISTORY OF THREE CASES.

By W. W. HEWLETT, M.D.,

BABYLON, L. I.

The slipping of a portion of intestine within another portion of intestine, constitutes an intussusception, or an invagination. It consists of two distinct portions, an external or receiving portion, forming the sheath, and an internal or protruding portion, forming the plug. The sheath consists of one, and the plug consists of two cylinders. There is a receiving, an entering, and a returning layer; and consequently two mucous and two peritoneal surfaces oppose each other. Owing to the traction of the mesentery the plug never lies parallel with the sheath, but always in the form of a curve, or a coil. Owing to the length of the plug, and to the degree of traction of the mesentery, is the obstruction of the intestinal tube, partial or complete. The lengthening takes place mainly at the expense of the external portion—the external peritoneal layer of the intussusception becomes *inverted* much more readily than its internal mucous layer becomes *everted*. Intussusception may occur at any part of the large or small intestines; the most frequent point being the lowest part of the ileum, a portion of the ileum becoming prolapsed through the ileo-cæcal valve.

Out of forty-five fatal cases referred to by J. Lewis Smith, thirty-eight began at this point. It is less frequent entirely in the small than in the large intestines. It is so rarely found entirely in the small intestines that even M. Rilliet asserts that intussusception never occurs there, but this has been disproved by more than one observer. This variety of intussusception rarely or never occurs before the age of three months. In the fifty-two cases recorded by Smith, twenty-three occurred between the third and the sixth month. Leichtenstein says, "the first year after the third month is remarkable for a special frequency." In a collection of twenty-five cases by Rilliet and Barthez there was none under the age of four months. It is remarkable that no case has been reported under the age of three months.

* Abstract of a paper read before the Suffolk County Medical Society.

The *morbid anatomy* varies according to the duration of the disease. Primary inflammatory invaginations are always descending.* As soon as the invagination occurs the central becomes in effect a foreign body, excites peristaltic action, and is forced farther and farther down the alimentary canal. The compression and dragging to which the implicated mesentery is subjected, causes venous obstruction, with swelling and sanguineous infiltration of the central portion, producing bloody exudations from its mucous surface. If life be prolonged, peritonitis is developed, which is generally limited to the invaginated part, and produces adhesions between the opposing serous surfaces. In recent cases the lesions are merely those that are produced by compression, viz., swelling and sanguineous infiltration of the mucous coats. In protracted cases there is more or less gangrene of the central portion. The gangrene is more to be observed at its neck and at its extremity, the effects of traction and compression being more exerted at the ends of the central portion. The central portion is in some cases entirely separated by mortification, and is discharged in a single piece, or it may be discharged gradually in small shreds. In either event union and cicatrization of the intestinal tube may ensue, and be followed by the recovery of the patient. In exceptional cases, where general peritonitis occurs, perforation of the intestine from over-distention takes place above the point of intussusception. The length of the central portion varies from a few inches to a foot or more. The sheath of the intussusception becomes greatly reduced in length, which accounts for the fact that the invaginated part may be felt in the rectum, when only a very short portion of the large intestine enters into the formation of the central portion.

In treating of the *causes* of intussusception we must first consider the fact that in the large majority of cases the displacement begins with a protrusion of a portion of the ileum through the ileo-cæcal valve. Anatomical peculiarity, therefore, takes precedence among the predisposing causes. Sex is also mentioned as a predisposing cause. It is true that the disease occurs more frequently among males than in females; but is it not also true that male infants, as a rule, are more susceptible to the various influences that produce disease, and have less vitality than female infants? A favorable condition for intussusception may be presented by a tetanic or tonic contraction of the circular muscular fibres of the intestine, and a distention of the intestinal canal below the point of contraction, from the accumulation of flatus, thus producing tenesmus and increased peristaltic action. Paralysis of a limited portion of the intestine may operate as a cause of intussusception; also the receipt of injuries, or an intestinal polypus. Iliac tenesmus, or cæcal tenesmus from irritation of the ingesta, may produce a prolapse of a portion of the mucous membrane of the ileum through the ileo-cæcal valve, in the same way that rectal tenesmus plays such an important part in the production of prolapse of the rectum.

The *symptoms* of intussusception are usually developed suddenly. The infant begins to cry violently without apparent cause. The nurse finds herself utterly unable to soothe it. A natural evacuation from the bowels may occur. Vomiting is the first prominent symptom that awakens fear. The vomiting soon becomes persistent and frequent. In a few hours one or more small bloody passages occur. If, after a hasty examination, the physician prescribe merely for the symptoms, he will increase the child's suffering, and add to the terrible dangers of the disease. If he make a careful examination of the abdomen he may find an elongated tumor, which is generally located in the right or the left iliac region. He may feel a tumor in the rectum, or possibly protruding from the anus. The blood that is passed will be slightly mixed with mucus or serum; the bowels are obstinately constipated. If a cathartic have been administered he will be informed that the baby threw it up. The further progress of the cure will be greatly influenced by the treatment. Should a cathartic be given that is retained until absorption occurs, all of the symptoms will be intensified, and to those above described will be added that of tenesmus. The temperature is normal at first, but after two or three days, if life be prolonged, peritonitis will be developed, and we then have the symptoms of that disease superadded. The pain is paroxysmal in character; vomiting is rarely or never absent. It may become stercoraceous, but this is believed to be exceptional. In infants, above the age of twelve months, hemorrhage from the anus may not be observed.

It is a very important diagnostic symptom. Meteorismus, to a greater or less extent, is always present. Convulsions in some cases, though rarely, take place. West says: "In the majority of cases convulsions come on a few hours before death, which always takes place within a week." In the three cases of which the histories are herewith presented, convulsions did not occur in either, and one case survived until the tenth day. Meigs and Pepper say: "Death takes place within five days, as a rule." In thirty-three cases embraced in the statistics of J. Lewis Smith, the largest number of deaths took place on the third day. This agrees with the statement of Vogel, who says: "As a rule, death takes place on the third or fourth day." The disease may *terminate* in apparently spontaneous reduction and recovery, which is extremely rare; but two cases illustrative of this happy termination are cited by West. It may terminate in recovery by reduction from artificial means; also by sloughing of the invaginated portion, which, so far as has been ascertained, has never yet occurred under the age of thirteen months. According to Lichtenstein, "the separation takes, in the majority of cases, from the eleventh to the thirteenth day;" but this observation has reference to cases of all ages. Cases are referred to where the symptoms of invagination became chronic, and continued for weeks and even months, but these cases doubtless occur only in children above the period of infancy. Death may occur from collapse, peritonitis, or from exhaustion.

There is no absolute pathognomonic symptom of the disease, and it is difficult, particularly in the early period of the attack, to make the *diagnosis*. Intussusception may be confounded with acute indigestion; gastritis from poisoning; acute dysentery; colic; cholera infantum; and with other forms of internal strangulation of the intestine. The sudden development of abdominal pain in an infant above the age of three months, with persistent vomiting, soon followed by bloody stools and tenesmus, point very strongly to intussusception. If the presence of an abdominal tumor of recent occurrence can be ascertained, there can scarcely exist a doubt as to the special character of the disease. If, with the above described symptoms, a tumor can be felt in the rectum, a positive diagnosis can at once be made.

What are the indications for *treatment*? *First*, the relief of pain; *second*, the reduction of the displaced intestine; *third*, the prevention of inflammation.

The first indication is to be accomplished by the use

* Vide Ziemssen's Cyclopædia, Vol. VII., p. 611.

of opium, which not only relieves pain, but arrests peristaltic action and tenesmus, thus preventing a still further descent of the invaginated bowel. Reduction should be attempted as early as possible, either by injections of warm water, or of air or gas, or by the introduction of an œsophageal sound, with a sponge attached, in the rectum; and lastly, by opening the abdominal walls. Inflammation is to be prevented by keeping the intestines as quiet as possible with the free use of opium, by applying soothing remedies externally, allaying nausea and vomiting, and by giving only that kind of nourishment that leaves the least residuum. Where meteorismus is excessive, the intestine may be punctured with a fine trocar, and the pent-up gas allowed to escape. If the lesion be wholly within the small intestines, our efforts at reduction by injections will be unavailing, for it has been repeatedly shown that the ileo-cæcal valve will rupture before it will allow of the passage of fluid into the ileum. Should the invaginated portion be within reach of the finger, an attempt may first be made to push it up with the œsophageal sound and sponge. This method, that is known as Nisson's, has alone been sufficient in a few cases in effecting reduction. At least it will prove serviceable by giving more space in which to operate with injections. In using the injections, a fountain, or a Davidson's syringe should be employed. The water should be lukewarm. After introducing the nozzle of the syringe, the fingers of the left hand are to be used in compressing the soft parts about the anus, which will tend to prevent a regurgitation of the liquid. When a considerable amount of liquid is injected, the abdomen should be gently manipulated with the hands. It will generally be found that only a small quantity of liquid will remain, the larger proportion being rapidly and forcibly ejected. If no appreciable amount of liquid be retained, another attempt should be made, by gentle manipulation with the sponge and sound, to push the tumor above the rectum; afterward the injection is to be repeated. If this prove unsuccessful, the infant may be allowed to rest for an hour or two, when the injection is to be repeated. After sufficient trials in this way, if relief be not obtained, a resort should be had to inflation. For this purpose a common pair of bellows may be used, to the nozzle of which an elastic tube may be attached. The latter is to be introduced, if possible, high up in the rectum. J. Lewis Smith recommends for this purpose two or three quart bottles of highly charged carbonic acid water, with the portion of a tube of a Davidson syringe. Either of these means, in a very small minority of cases, may prove successful; but whether water, air, or gas be forced into the rectum, it is essential to produce a marked degree of distention; also that the patient should be as nearly as convenient in the inverted position, and while distended, the abdomen should be gently manipulated by the hands. In the event of failure of these means, after repeated and satisfactory trials have been made, what are we to do? Are we to give up all active attempts, and devote our efforts to the prolongation of life, hoping that the invaginated gut may slough, and be followed by the recovery of the patient? This would be a perfectly admissible plan of treatment, and one that would doubtless be followed by the great majority of practitioners. So far as has been ascertained, the youngest child that has recovered after mortification and discharge of the gut took place, is thirteen months.* The chances for recovery, then, for an infant under one year of age, and under these circumstances, are so slight that this purely *expectant* plan of treatment is almost equivalent to abandoning it to a fatal termination. The preponderance of authority in the department of diseases of children is averse to the operative method of reduction. Dr. H. B. Sands operated successfully in the case of an infant aged six months.*

What do the surgeons say? Erichsen (page 818 of *The Science and Art of Surgery*, second London edition): "If, however, it can be satisfactorily made out that there is an internal obstruction, and more especially if the intumescence can be felt, it will evidently be the duty of the surgeon to give the patient his only chance." Bryant (page 297 of *The Practice of Surgery*): "Operation in intussusception is scarcely justifiable." Holmes (page 619, vol. iv., in the edition of 1870): "The proposal to open the abdomen should not be sustained." The writer herein also explains his disbelief in the injection of air or water. Gross (page 677, vol. ii., fifth edition of *The System of Surgery*): "In internal strangulation depending on a twist, an invagination, or the interception of the bowel through an aperture in the omentum, the diagnosis is so uncertain that the proper time for relief is usually allowed to pass before the operation is decided upon, and when at last it is performed, the case must almost necessarily result fatally."

Hamilton (page 769, second edition of *A Treatise on Surgery*): "It is only in adults that such a procedure could encourage any hope of success."

The paper closes with the following assertion: Where the diagnosis of intussusception is *positive*, after proper and judicious attempts, without relief, have been made in an infant that has been previously healthy, that subsists on natural food, whose parents are free from constitutional vice, where the operation can be performed before local peritonitis has occurred, within the first twenty-four or thirty-six hours, it can scarcely be doubted that the operation of laparotomy is justifiable.

THREE CASES OF ACUTE INTUSSUSCEPTION IN INFANTS.

Case I.—Male, age five months. Had occasional attacks of colic and indigestion. The general condition of the child had always been good. Was summoned at night, Sept. 5th, 1872. Found the patient apparently suffering severe pain. Vomiting occurred after every time of nursing. Bowels had not moved for nearly twenty-four hours. A dose of castor-oil that had been given was promptly rejected. Ordered Dover's powder and calomel in combination (two to three grs.), and warm fomentations to the abdomen; also, should powder be vomited, to give an enema. Three hours after was summoned in haste, and found all of the symptoms intensified. Two bloody evacuations from the bowels had occurred. An examination of the abdomen revealed nothing abnormal. With the index finger in the rectum I could distinctly feel an elongated tumor, which was at once recognized as an intussusception. The subsequent treatment consisted of frequent and copious injections of warm water, opium as indicated, and brandy. The child was allowed to nurse to a moderate extent. Vomiting occurred frequently, but did not become stercoraceous. On the fourth day the abdomen became tympanitic and tender; the patient was feverish; slight muco-sanguineous discharge occurred two or three times daily until the tenth day, when death took place suddenly.

On post-mortem examination the abdominal cavity

* Vide J. Lewis Smith's Diseases of Children, fifth edition, page 675.

* Vide New York Medical Journal, for July, 1874.

was found to contain a large quantity of gas and liquid feculent matter that poured through an opening in the ileum. Perforation had taken place from extreme distention, as the small intestine at this point was equal in size to the large intestine. The central portion of the intussusception, including a portion of the cæcum and about ten inches of the ileum, was tightly forced downward into the large intestine, the latter being greatly puckered up and forming the sheath of the intussusception. The entire mucous surface of the central portion was very much swollen, and at a point near its neck there was marked discoloration from gangrenous inflammation. There were slight adhesions between the opposing peritoneal surfaces, and numerous patches of exudative plastic material were perceived at and also in places remote from the local lesion. Hemorrhagic discoloration in numerous places on the peritoneal surface of the small intestines, and dilatation of the blood-vessels of the mesentery, were observed.

Case II.—Male, aged four months, had been in excellent health up to the last day preceding my visit (Aug. 16, 1873). The child began to cry violently, and after a few hours vomiting took place. A mustard plaster was applied to the epigastrium, and three grains of hydrarg. cum creta were directed to be given. Eight hours after having prescribed the above I first saw the patient. The child had cried almost incessantly, and vomited everything it took. The bowels had moved once after taking the cathartic, and the evacuation was perfectly normal in appearance. The abdomen was tender on pressure over a small space a little to the right of the umbilicus, but was everywhere else uniformly soft and natural. An enema of tepid water was given, which was promptly rejected. The finger introduced into the rectum came in contact with a protruding mass, and after its removal was found to be soiled with a bloody discharge. Opium was then given in sufficient doses to render the patient comfortable. Repeated efforts were made with a pair of bellows by inflation, and with the syringe by injections of tepid water, to reduce the invagination, but all failed. There was little or no fever at any time, and the general treatment was that as described in connection with the history of the preceding case.

Death took place on the fifth day. No post-mortem examination was made.

Case III.—Female, aged five months. Had always been healthy. Was one of the good babies that "never cried." First saw the patient about 10 A.M., Oct. 16, 1874. The child slept well the night previous until 4 A.M., when it commenced to cry, and the mother says "kept it up for three hours, when it fell asleep." After about three-quarters of an hour it awakened, and cried until my arrival. The bowels had moved naturally the day before, a bloody evacuation had occurred that morning. The child had vomited three or four times since 4 A.M. On examination of the abdomen an elongated tumor was found in the left lumbar region, which was somewhat tender on pressure. No tumor could be felt with finger in the rectum. Ordered warm fomentations to the abdomen and a warm-water injection. Left a solution of sulphate of morphia to be given as required to relieve pain. Saw patient again at 6 P.M. Two bloody stools had been passed, and the child vomited after every period of nursing. Had slept a good deal during the day, which was due to the morphia. The mother had given two injections, but they came right away. On exploring the rectum with the finger a tumor was felt high up, which was pronounced an intussusception. The treatment of this was similar to that adopted in Case II., but in addition, in order to effect a reduction, an attempt was made with a piece of rubber tubing, to which a sponge was attached. The sponge having been introduced into the rectum, it was pushed up gradually and slowly, while the abdomen was gently manipulated externally. While treating this case I was surprised on the morning of the fourth day by the intelligence which was brought by the father, that the child was so much better that I need not go to see it. "The bowels moved and the baby has had a comfortable night." Curiosity impelled me to visit the child, who was found very comfortable from the action of the opium, and by abstaining from efforts to reduce the invagination for several hours. The evacuation consisted of mucus slightly tinged with blood. The abdominal tumor and the rectal tumor were *in statu quo*. Death occurred on the seventh day. A post-mortem examination revealed the existence of an intussusception, which consisted of the cæcum and nearly eight inches of the ileum. The mucous surfaces were very red and much swollen. The peritoneal surfaces were lustreless and discolored from hyperæmia in the immediate location of the intussusception, but everywhere else they presented a perfectly natural appearance.

Progress of Medical Science.

Acute Saponine-Poisoning and the Value of Saponine as a Local Anæsthetic.—In 1867 Eugene Pelikan expressed the belief, as the result of physiological experiment, that saponine would in time come to play a role of some importance as a local anæsthetic. Köhler also experimented with the drug on frogs, rabbits, and dogs; but, while thinking it possible that it might have a future as a local anæsthetic, he laid great stress on the dangers connected with its entrance into the circulation (paralysis of the heart, of the vaso-motor and respiratory centres). Schroff gave it internally to men in doses of as much as two grains without producing poisonous effects, and thought that its action in depressing the pulse and temperature might make it useful in hypersthenic fever. Eulenburg seems to have been the first to employ the substance clinically. He injected it hypodermically in three cases of neuralgia; but, while all the painful, local and alarming general symptoms of the drug were produced, the neuralgia was not relieved. Finally Dr. Keppler, in order to determine the real value of saponine as a local anæsthetic, undertook a series of experiments on himself, and the following are the results obtained and the conclusions he drew from them.

In each experiment he injected 0.1 gramme (gr. iss.) of saponine into the inner side of the left thigh. The immediate local effect was the development of a cutaneous inflammation resembling erysipelas, but much more painful. This inflammation increased in violence for twenty-four hours, remained stationary for the same length of time, and then diminished rapidly. The general symptoms produced by this violent local irritation were the same as would be excited by any very painful injection. The specific local effects of the saponine—anæsthesia of the point of injection to other irritants—set in about fifteen minutes after the injection, and persisted less than fifteen minutes. The area of the anæsthesia was identical with that of the paleness caused by the injected solution, *i. e.*, it extended as far as the saponine solution spread in the subcutaneous tissue, and bathed directly the ends of

the nerves. Of the specific general effects of the drug the most important was undoubtedly its action on the temperature. This rose steadily for three hours, and then fell gradually to the normal point, which it reached within twenty-four hours. For the next two days there was some fever, but on the fifth day the temperature was far below the normal point, reaching the collapse-point of 93°. The pulse also was somewhat elevated during the first three days, and fell on the fifth day to sixty-five per minute. The rise in the temperature during the first three days was evidently due to the violent local inflammation, and it would have been much more excessive had it not been for the specific depressing action of the drug on the pulse and temperature; this manifested itself in its full power on the fifth day, after the local inflammation had subsided. The fact that the drug could exert such a powerful action five days after a single injection is evidence of its slight diffusibility; this same quality would make its excretion from the body more difficult, and hence it must be classed among the drugs with cumulative action.

Other general effects of the drug were marked bodily and mental depression, somnolence, and salivation. The pain, exophthalmus, and strabismus of the left eye, and the greater depression of the temperature on the left side ($2\frac{1}{4}°$ on the fifth day) must be ascribed to direct alteration of the nerve-centres, while the pain in the knee and hip, and the swelling of the glands in the left groin, were evidently due to direct transmission of inflammation.

The conclusion Dr. Keppler draws from his experiments is, that saponine does not deserve to be mentioned among the anæsthetics that can be utilized in surgical practice. As an antipyretic, however, it is more deserving of consideration, the dangers connected with its administration not being sufficient to counterindicate its careful employment. Its subcutaneous administration is unfortunately very painful, but not more so than hypodermic injections of corrosive sublimate. In fact, the violent local irritation produced by the injections superadds a derivative to the antipyretic action of the drug, which, in his opinion, would make it especially valuable in the treatment of those cases of acute pleurisy and pneumonia that are attended by high fever and threatening cerebral symptoms, and also of those malignant cases of endo- and pericarditis that run a course resembling that of a severe typhus. The maximum dose to be employed should not exceed one grain. Moreover, it is well known that an intercurrent erysipelas sometimes leads to the rapid absorption of inflammatory indurations, and even of specific tumors; and as the anatomical changes in the skin produced by saponine injections closely resemble those of erysipelas, Dr. Keppler suggests a methodical trial of the injections in cases of sarcoma, lupus, etc., inaccessible to operation, in the hope of thereby bringing about resorption.—*Wiener klin. Wochen.*, Nos. 32, 33, and 34, 1878.

A Case of Asthma Millari.—Dr. Jacobs, of Cologne, reports the following case of this disease, which is so rare, that in an extensive practice of forty-five years, he has only met with eight or ten cases of it. The patient, a girl seven years of age, had been suddenly seized while in bed with a violent attack of suffocation. She was perfectly conscious, her voice was not in the least hoarse, the face and extremities were covered with a cold sweat, the lips were blue, the pulse was small and could scarcely be counted, and, in a word, all the symptoms of collapse, with cyanosis, were present. The respiration was exceedingly difficult, all the accessory inspiratory muscles being called into play. The child gasped for air, but expelled the air again immediately. Auscultation revealed only weak respiratory murmur and scarcely appreciable heart-sounds. There were no abnormal sounds in the larynx or bronchi, and no fever; the abdomen presented nothing abnormal; the bowels and bladder had recently been evacuated; there were no throbbing of the carotids and no swelling of the jugulars. The tongue was clean and moist, and the child put it out readily. The diagnosis was asthma millari, and the prognosis was unfavorable, because death very frequently occurs in the first, and almost invariably in the second attack. If, however, the attack be not repeated within twenty-four hours, the patient generally recovers. The treatment consisted in irritation of the skin and pharynx, drawing out and pressing down the tongue, and the administration of musk. One-third of a grain of musk was given every half-hour, and four hours later the doctor found the child sitting up in bed, playing, and to all appearances perfectly well. A careful examination then revealed nothing abnormal, and particularly no redness or swelling of the laryngeal mucous membrane. The after-treatment consisted only in nourishing diet, and rest in bed for two days, with pleasant occupation. The attack has not been repeated, and the prognosis is now favorable, as the disease has never been observed after the eighth year, and the patient will soon attain that age.

The post-mortem appearances in the fatal cases of asthma millari that have thus far been recorded have been negative, with the exception of hyperæmia of the lungs and the presence of small blood-coagula in the right heart. In two of his own cases Dr. Jacobs found, in addition to the pulmonary congestion, petechial suggillations on the pleura pulmonalis, in the heart, and in the aorta. He believes the affection to be entirely distinct from the so-called asthma thyricum or laryngismus stridulus, and from spasmus glottidis infantum. The diagnostic points from those affections are: 1. Asthma millari attacks only children from two to eight years of age, and especially girls. 2. It attacks children of well-to-do parents rather than those of the poor. 3. The attack sets in suddenly without previous illness, without catarrhal manifestations, and without demonstrable cause. 4. The voice remains clear and the speech distinct. 5. The sensorium is unclouded. 6. There are no abnormal sounds, such as a cry or stridor. 7. The health of the children in the intervals between the attacks is perfect. 8. The affection is not attended by fever. Numerous remedies have been recommended for the affection in addition to musk, ex. gum camphor, assafœtida, potassium bromide, belladonna, clysters of chloral hydrate, subcutaneous injections of morphine, inhalations of amyl nitrite and chloroform, touching the pharynx with liquor ammonii caustici, etc., but Dr. Jacobs has had no practical experience with any of them.—*Deutsche med. Wochen.*, September 21, 1878.

Arsenic in Green Leather.—Two officers in Königsberg recently suffered from eruptions on the head, which came on after they had been wearing for a short time helmets lined with green leather. One of them, a colonel, was for a time even dangerously ill. A chemical examination showed that the leather with which the helmets were lined contained arsenic.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 15, 1879.

THE ADULTERATIONS OF FOOD AND MEDICINE.

At the last meeting of the Medical Society of the State of New York, Dr. E. R. Squibb, of Brooklyn, presented the draft of a proposed law for the detection and punishment of adulterations of food and medicine. As it is quite likely that the bill will soon be brought to the attention of the State Legislature, we take the opportunity of presenting a synopsis of its provisions.

It is not saying too much to assert in advance that the document has been prepared with great care, and that every suggestion tending towards its efficiency has been heeded; in fact, the draft is the result of thorough discussion of the subject by a Joint Committee of the New York Academy of Medicine, the New York Academy of Sciences, the Medical Society of the County of New York, the Therapeutical Society, the New York College of Pharmacy, the Medico-Legal Society, and the Public Health Association. Taking advantage of the experiences of the English "Sale of Food and Drugs Act," certain defects are guarded against in the present bill; for instance, general definitions as to what constitutes adulterations are carefully avoided, and specific ones presented instead. Again, the question as to intent to defraud is not considered, it being sufficient to establish the fact of fraud to secure conviction.

The question as to what constitutes adulteration in food or medicine is one, the consideration of which naturally presents itself in this connection. "Food" is defined as embracing every article used for food and drink, or in the food and drink of man and animals; while the term "medicine" is held to include every other article used for the preservation of health or the relief and cure of disease in man and animals, embracing antiseptics, disinfectants, and cosmetics.

A standard of purity is made by dividing articles of food into two classes, simple and compound. The standard of simples is fixed at the average quality of the substances in their natural condition (when so used), or after preparation by drying, grinding, packing, etc., without damage, according to the best methods, and without the admixture of foreign substances beyond what is essential—as salt in meat—to their preservation in a wholesome state. The standard for compound articles is fixed by the publicly known formulas according to which they should be compounded, or the labels or descriptions fixed to the compounds as sold or offered.

The standard for simple articles of medicine is that made by the United States Pharmacopœia. When any medicine is not embraced in the list of the Pharmacopœia, the statement of some commonly accepted standard of authority is to decide respecting the purity of the article. If the simples are pure, the compound must be pure; and hence the formula, recipe, or label is here held to be conclusive as to the compound it calls for. In patent medicines, the testimony of the owner's private formulas is conclusive, provided always that no compound shall contain any poisonous or hurtful ingredient not specified on the label; a baking powder containing alum, or a cosmetic containing lead—neither being stated upon the label of the compound—subjecting the seller to all the penalties of wilful adulteration. A patent medicine containing any such deleterious or toxic ingredient not plainly shown on the label, subjects the proprietor to prosecution and penalty.

The adulteration of articles of food or medicine consists, first, in adding one or more substances to another, as corn-meal in flour, whereby the strength, purity, quality, or value of the substance is reduced, with the effect of tending to deceive the public; secondly, as in artificial wines or mustard, in the substitution of one substance for another; thirdly, as in skim milk or partly exhausted tea, coffee, or drugs, in the abstraction of any part of the substance with the effect to reduce its value; fourthly, as oleomargarine for butter, in the application of a name belonging to one substance to another substance, thus tending to deceive the consumer; and, fifthly, in the presence in any substance of any impurity or foreign matter, either natural or accidental, if in unusual proportion, as dirt in food or medicine, and metallic salts in canned goods.

Whenever different qualities of the same are mixed together, adulteration is charged. The same is said for dilution of any kind, as water in milk, the addition of coloring, coating, or polishing matter, etc., are also defined as adulterations.

There is no doubt that the parts of the proposed bill defining adulterations and laying the foundations for such legal action as may be necessary, are as complete and perfect as human foresight can make them. The question regarding the carrying out of the law is one which will, however, invite discussion, and will

doubtless give rise to differences of opinion upon the subject. Dr. Squibb proposes that the duty of prosecution shall be imposed upon a State Bureau of Health, which shall have special boards of inspection and prosecution, and which boards shall be competent to act on the complaint of any consumer of an adulterated article.

We do not presume at present to offer any suggestions as to the working of such a law, reserving any comments thereon until the plan is perfected, and until such time as it shall be ready to be presented to the Legislature.

RESTRAINT IN THE TREATMENT OF THE INSANE.

In the care and treatment of the insane, the question of mechanical restraint has for many years received the greatest attention from alienists. The reaction from the old horrors of the chain, the dungeon and the lash, led at first to a great deal of sentimental nonsense, which culminated finally in the denial by many leading authorities of the value or need of any mechanical restraint at all.

Such views could not long be sustained, however, and they never had very wide prevalence in this country. At the present time, while the utility of restraint is generally acknowledged, very great efforts are being made every year to get along with the least possible amount. For it are substituted watchful care, regular work, drilling exercises, or whatever occupation may tend to teach the patient self-control. According to Dr. Shew, Superintendent of the Connecticut Hospital for the Insane, ninety per cent. of patients are now treated in American asylums without any mechanical restraint. This percentage has been increased especially within the last ten years.

It is pleasant to be able to record the declining years of that hideous array of apparatus which used to act with such happy reciprocity in narrowing the liberty and comfort of the patient, while enlarging that of the attendant.

STRENGTH OF THE VARIOUS SCHOOLS OF MEDICINE.

The Illinois State Board of Health has recently collected statistics which show very accurately the distribution of the medical men of that State. As every practitioner is obliged to obtain a certificate from this board, there is an opportunity of obtaining his status which has been carefully improved. The total number of physicians is 4,950; of these, 3,646 are Regular; 437 Homœopathic; 456 Eclectic; 37 Physio-medical; not stated, 336; all others, 38.

It will thus be seen that while the proportion of the Estray to the Regulars is sufficiently large to remind us that the ladies continue to like Homœopathy and kindred delusions, it is not as large as has been claimed by some. It is to be remembered also that Illinois is one of the few States which supports, upon the affluence of a five thousand dollar income, both an Eclectic and a Homœopathic medical school.

REPORT OF THE SURGEON-GENERAL OF THE NAVY.

When the previous annual report for 1877 appeared, we referred to the fact that the examining board had not been able to find good enough men to fill the vacancies in the service. In the recent report for 1878, it is stated that there are only six of these vacant places at present remaining.

The severe competitive examinations have resulted in securing to the navy a superior class of medical men; and the report testifies to the efficiency of their services. There are recorded 10,457 cases of disease, injury, etc., which were treated. The mortality was two per cent.

SUBSTITUTES FOR ALCOHOL.

We find that the efforts of temperance reformers are turned much more than formerly towards introducing some substitute for alcohol. Failing in the direct attack they are attempting a flank movement. There is now manufactured to meet in part these demands a series of aërated waters which equal many wines in delicacy of flavor. Ales and beers with an inappreciable amount of alcohol, and wines from unfermented grapes are also made, and form agreeable drinks, which may, to some extent, satisfy the demands of social occasions. For the weariness that follows muscular or mental exertion, the best things are food and rest. If drinks are craved, however, we have in thin oatmeal or Liebig's extract of meat, foods which enter the circulation so rapidly that their effect is comparable to that of alcohol. These, it is suggested, may be aërated and made endurable by various additions. Tea, and especially coffee, are also available and useful in these cases. For the reforming drunkard, bitter infusions may be of service in addition to the drinks already mentioned.

It seems possible that some advance may be made by temperance reformers through efforts in this direction, and since, as a rule, man is better without alcohol, they should have the help of the medical profession.

THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.

The recent meeting of the State Medical Society was the most successful and interesting one that has been held for many years. A large number of very valuable papers were read, and much important business was transacted. The address of the President was a model of its sort, and its wide dissemination, as recommended by the Society, will greatly aid the cause of State Medicine. It is, however, unnecessary to review the meeting in detail, and we only refer to it here, in a general way, to call the attention of our readers to the full report elsewhere.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Seventy-Third Annual Meeting,

HELD IN ALBANY, FEBRUARY 4TH, 5TH, AND 6TH, 1879.

TUESDAY, FEBRUARY 4TH.—FIRST DAY.—MORNING SESSION.

THE Society met, pursuant to adjournment, in the city of Albany, at 10 o'clock A.M., and was called to order by the President, DR. D. B. ST. JOHN ROOSA, of New York.

Prayer was offered by Rev. HORACE C. STRONG.

INAUGURAL ADDRESS.

The President, in his opening address, directed attention to a few facts illustrative of the condition of the medical profession in the State of New York.

The number of colleges in affiliation with the Society were eight. Of those, *six* were exclusively attended by male students; *one* by women, and *one* by men and women. The whole number of students attending medical lectures in the State for the session of 1878–79, was 1,965. The number of graduates from the various colleges in the State, in the year 1878, was 526. There were nine medical journals published in the State. Thirteen new volumes on medical subjects, by American authors, had been published during the year, besides several new editions and many reprints of foreign books. The various county societies maintained their organizations, but, aside from cities and large towns, scientific work done in them was meagre. Besides the various county societies, there were thirty-eight other organizations for the purpose of discussing medical subjects. Reference was made to the publications of the Kings County Medical Society, and to the Medical Register of New York, New Jersey, and Connecticut, under the supervision of the New York Historical Society. The value of such a register could hardly be over-estimated. If the work could be carried on by this Society as it had been done by the private organization that had it in charge, it would become what it could not be considered now —an official guide to our profession.

The President suggested whether the Society might not take some action in that direction.

The functions of the Society were chiefly performed by its scientific work. Its legislative duties, fortunately, were few. Its alliance with the State was chiefly honorary.

The address was closed by appropriate reference to strengthening each other by the recital and discussion of professional experience, and the Society at once proceeded to the transaction of further business.

ANNOUNCEMENT OF COMMITTEES.

The President then announced the following committees:

For Business Committee—Drs. J. C. Hutchison, J. W. S. Gouley, and J. V. Kendall.

For Committee of Arrangements—Drs. Wm. H. Bailey, F. C. Curtis, and the Secretary, Dr. Wm. Manlius Smith.

For Committee on Credentials—Drs. J. H. Hinton, W. S. Ely, and S. G. Wolcott.

For Committee on Ethics—Drs. W. C. Wey, E. M. Moore, and A. L. Saunders.

For Member of Nominating Committee appointed by the President—Dr. E. R. Squibb.

COMMUNICATIONS FROM COUNTY SOCIETIES.

DR. DIMON, of Cayuga Co., presented a communication with reference to collecting the names of those members of the profession who had lost their lives in the pursuit of science or exposure to epidemics, and that such list be published in the transactions of the State Medical Society. Referred to Business Committee.

Communications were presented from Oneida Co. and Greene Co., which were referred to Committee on Publication.

DR. CASTLE, of New York, presented a communication from the Medical Society of the County of New York, with reference to certain instructions which the delegates from that county had received concerning amendments to the by-laws.

On motion made by Dr. Wyckoff, of Buffalo, the communication was referred to the Committee on By-Laws, with instructions to report upon the same at the next annual meeting.

RESOLUTIONS.

DR. G. W. COOKE, of Otego, offered the customary resolution extending an invitation to the Governor and the members of the Legislature who were physicians, to be present and participate in the transactions of the Society. Carried.

DR. L. E. FELTON, of St. Lawrence, offered a resolution asking that the Legislature be petitioned to repeal all acts empowering boards of censors of the various county societies to issue certificates to practice medicine.

Referred to Committee on By-Laws, with instructions to report at the next annual meeting.

DR. CASTLE, of New York, offered the following resolution:

Resolved, That the Committee of Publication be requested to consider and report to the Society, at this meeting, the feasibility of a scheme for the publication of the transactions which would avoid the assessment of county societies for the expense of publishing the scientific papers included in the transactions. Carried.

REPORT OF THE COMMITTEE ON CODIFICATION OF THE BY-LAWS.

DR. ALEX. HUTCHINS, of Brooklyn, submitted a complete report, which, on motion by Dr. Piffard, was referred to the Committee on By-Laws, to be reported upon next year. On motion, the committee was discharged.

Inquiry into the legality of the resolution passed by the Medical Society of the State of New York, in 1872, *requiring county medical societies to institute a preliminary examination of the qualifications of young men purposing to commence the study of medicine.* Instituted by the Society.

DR. HUTCHINS presented a report, according to the above instruction, which was referred to a special committee, consisting of Drs. Wey, Squibb, Hutchins, Vander Poel, and Kendall.

ESTIMATION OF UREA.

DR. SQUIBB read a brief paper upon the above subject, the chief object of which was to correct an error which appeared in the paper of Dr. Maurice Perkins, published in the transactions for last year.

The decimal by which to multiply should be .00269 instead of .0269. [See Trans. for 1878, pp. 45–46].

REVISION OF THE UNITED STATES PHARMACOPŒIA IN 1880.

Dr. Squibb read a communication upon that subject, and offered a resolution providing for the election of a committee of *three* to represent the Society in the convention which would meet in 1880. Believing it to be for the best interests of the Pharmacopœia, he made the special request that he should not be elected to serve upon the committee.

The resolution was adopted.

The paper and the communication were referred to the Committee on Publication.

CONTRACTED KIDNEY.

Dr. W. S. Ely, of Rochester, read a paper upon the above subject, and reported two cases.

The *first* belonged to a class frequently seen, and the *second* was regarded as somewhat exceptional with reference to symptoms. In the first, seventy-one ounces of urine were passed in twenty-four hours, and had a specific gravity of 1012, a trace of albumen and a few casts.

In the second case the patient passed an average of 104 ounces of urine for twenty-three days, without the slightest evidence of albumen or casts, but with a low specific gravity. There was no visual disturbance, nor headache nor nausea nor vomiting. Special reference was made to the insidious nature of the affection, to the fact that albumen and casts might be absent from the urine for many days in succession, to the importance of measuring the urine passed during the entire twenty-four hours, and noting its specific gravity.

Dr. Ely also suggested that it was a question whether there was any such thing as diabetes insipidus without renal changes and without renal contraction. The paper was discussed by Dr. Vander Poel, of Albany, and referred to the Committee on Publication.

PRESIDENT'S ADDRESS.

Drs. A. Hutchins, F. A. Castle, and F. R. Sturgis, were appointed Committee on the President's Address.

FRACTURE OF THE FEMUR.

Dr. Norman L. Snow, of Albany, then read a paper in which was recorded the treatment of twenty-five cases of fracture of the femur occurring in private practice.

All were treated by extension and counter-extension. Plaster-of-Paris was sometimes employed *late* in the treatment of the case. Compound fractures justified the early use of the plaster-of-Paris bandage.

The paper was referred to the Committee on Publication.

MEDICAL EDUCATION.

Dr. A. Mercer, of Syracuse, read a paper in which he discussed the relations of the medical student and the medical profession to the question of medical education.

It was discussed by Drs. Sturgis, Vander Poel, Castle, and Sherman, and then referred to the Committee on Publication.

The Chairman of the Committee of Arrangements introduced Dr. Clarkson F. Collins, a representative of the Massachusetts State Medical Society.

MEMBERS BY INVITATION.

Dr. W. H. Bailey also announced the following as members by invitation: Wallace Clark, of Utica; D. H. Clark, Lorenzo Hale, H. J. Fellows, E. B. Tefft, J. P. Boyd, Jr., and Geo. F. Stevens, of Albany; B. A. Mynderse, of Schenectady; C. W. Hamlin, of Middleville, Herkimer Co.; P. R. Furbeck, of Gloversville; A. P. Ten Eyck, of De Forrestville, Rensselaer Co.; and Wesley Newcomb, of Cornell University, Ithaca.

TUMOR OF THE CEREBELLUM.

Dr. George T. Stevens, of Albany, reported a case of tumor of the cerebellum, with remarks. The growth occupied about one-half of the fossa, and weighed one and a half ounces. It was composed of fibrous connective tissue containing groups of nucleated cells.

It was regarded as a neuroma of the auditory nerve.

Dr. Rockwell, of Brooklyn, read a paper on

INTRA-CRANIAL TUMORS.

It consisted chiefly in the report of a case interesting in two particulars: 1. The extreme rapidity of development, twenty-seven days only elapsing after the appearance of first symptoms until development of phenomena, which made the case unmistakable; 2. The determination of the situation of the tumor by means of the surface-thermometer.

The paper was discussed by Dr. Thos. R. Pooley, of New York, and referred to Committee on Publication.

The Society then adjourned to meet at 3 P.M.

First Day.—Afternoon Session.

The Society was called to order by the President at 3 P.M.

REPORT OF THE COMMITTEE ON BY LAWS.

Dr. Wey, Chairman of the Committee on By-Laws, reported that the Committee had approved of the By-Laws of the Medical Society of the County of Chemung, and also of the County of Otsego.

Unofficial reports had been received from the County of Saratoga, and also from the County of New York, but the Committee felt unwilling to approve of them.

The report was laid upon the table until the report should be received from the special committee asked for by Dr. Hutchins.

COMPENSATION OF MEDICAL EXPERTS.

Dr. Dimon, of Cayuga, read the bill passed by the Senate at the last session of the Legislature, and referring to compensation of medical experts. The bill failed to pass the Assembly.

The Committee proposed to continue its efforts, and should endeavor to have the bill introduced in the lower house during the present session of the Legislature.

SECTIONS OF THE BRAIN.

Dr. J. C. Dalton, of New York, exhibited specimens and described a method of showing sections of the brain in its fresh condition, with retention of color and normal relation of parts.

The brain was first imbedded in a strong solution of gelatine, enclosed in a brass frame-work. By means of a long, thin knife, sections were then made, and as soon as made transferred to another frame, imbedded in gelatine, and covered with a glass plate.

LUPUS.

Dr. H. G. Piffard, of New York, read a paper upon the treatment of lupus.

It will be published in a future number of the Record.

SYMPATHETIC GLAUCOMA.

Dr. D. Webster, of New York, read a paper upon the above subject, and reported two cases. Under ordinary circumstances we should have expected sympathetic iritis. It seemed to him, however, that in both cases the glaucoma was direct consequence of the injury received.

A NEW AGENT IN THE TREATMENT OF GLAUCOMA.

Dr. Thos. R. Pooley, in a brief paper, gave the results of his experience in the use of *sulphate* of *eserin*, especially in the treatment of acute glaucoma. He had used it in four cases. Its great value consisted in the power it had to produce temporary improvement, by which the patient could be prepared for an operation.

Dr. H. D. Noyes, of New York, remarked in way of caution, with reference to expecting too much from the use of the remedy. In one case he had employed it without producing any benefit whatever; yet he regarded it as a valuable remedy for controlling this severe and important disease.

With reference to sympathetic glaucoma, we had not sufficient data to enable us to arrive at definite conclusions.

Dr. Knapp, of New York, referred to a case of glaucoma, in which a cure was effected by the use of eserin. The strength of the solution he used was one grain to three or four drachms of water, and employed three or four times a day.

The papers were referred to the Committee on Publication.

PAPERS READ BY TITLE AND REFERRED TO THE COMMITTEE ON PUBLICATION.

On "Ovariotomy," by Dr. C. G. Pomeroy, of Wayne Co.

On the "Incubation of Scarlet Fever," by Dr. C. G. Bacon, of Fulton.

THE RELATION OF THE MEDICAL PROFESSION TO THE ABUSE OF MEDICAL CHARITY.

Dr. F. R. Sturgis, of New York, read a paper upon the above subject, which was referred to a special committee, consisting of Drs. Jacobi, Castle, and Noyes, of New York, to be reported upon on Wednesday.

BIOGRAPHICAL SKETCHES.

Biographical sketches of Dr. Albert Gallatin Purdy, by Dr. H. W. Carpenter, of Oneida, and Dr. Jehiel Stearns, of Pompey, by Dr. Kneeland, of Onondaga, were referred to the Committee on Publication.

Dr. H. P. Farnham offered the following resolution:

Resolved, That the Committee on By-Laws be requested to report concerning the revision of the by-laws of the Medical Society of the County of New York at this meeting, as otherwise said society would be without by-laws for this year. Carried.

MEMBERS BY INVITATION.

Dr. Bailey reported the following as members by invitation: L. C. B. Graveline, Willis G. Tucker, John Thompson, Amos Fowler, Eugene Van Slyck, and John B. Stonehouse, of Albany; Clarkson C. Schuyler, of Troy; Herman Knapp, of New York City; and D. M. Wilcox, of Lee, Mass.

COMMITTEE ON NOMINATIONS.

For First Senatorial District—Dr. J. H. Hinton, of New York; *For Second Senatorial District*—Dr. Wm. Govan, of Rockland Co.; *For Third Senatorial District*—Dr. C. A. Robertson, of Albany; *For Fourth Senatorial District*—Dr. Thompson Burton, of Montgomery Co.; *For Fifth Senatorial District*—Dr. H. N. Porter, of Oneida Co.; *For Sixth Senatorial District*—Dr. Joshua B. Graves, of Steuben Co.; *For Seventh Senatorial District*—Dr. Jonathan Kneeland, of Onondaga Co.; *For Eighth Senatorial District*—Dr. C. C. Wycoff, of Erie Co. Dr. E. R. Squibb, of Kings Co., appointed by the President.

PERMANENT REMOVAL OF HAIR BY ELECTROLYSIS.

Dr. G. H. Fox, of New York, read a paper upon the above subject, and gave a description of the instruments used and the manner of performing the operation.

Dr. Piffard exhibited a compound microscope attached to a spectacle-frame, which could be used with advantage in the operation.

The paper will appear in a future number of the Record.

BAPTISIA TINCTORIA IN THE TREATMENT OF TYPHOID FEVER.

Dr. Laurence Johnson, of New York, read a paper upon the above subject, and reported *seven* cases. It was believed to have a beneficial action upon the disease when administered in doses of the tincture varying in size from one to three drops every hour or two hours.

Dr. Squibb thought that physiological experiments should precede pathological experimentation before the value of any remedy in the treatment of disease could be satisfactorily determined.

Dr. Johnson remarked that the physiological action of the drug had been thoroughly studied by the homœopaths, but that he did not feel at liberty to introduce the results thus reported.

Dr. Jacobi was unwilling to accept the drug as one possessing any special efficacy in the treatment of typhoid fever until all measures commonly resorted to for reducing temperature were excluded, such as until the fact that the tendency of the disease was to moderate within the third week, was taken into consideration, and until we know something more of its physiological action.

The paper was further discussed by Drs. Kneeland and Piffard, and then referred to the Committee on Publication.

LAPAROTOMY IN INTESTINAL OBSTRUCTION.

Dr. J. P. Crevling, of Cayuga, presented the statistical merits of this operation in two classes of cases: 1. Obstruction from intussusception; and, 2. Obstruction from all other causes. For information he had drawn largely upon a report made by Dr. H. B. Sands, of New York, and also from the writings of Dr. Ashurst, of Philadelphia, published in 1874.

His conclusions were as follows:

1. That abdominal section for the removal of intestinal obstruction was not only justifiable, but eminently proper, in cases of intussusception as soon as milder means had failed.

2. That the operation should be immediately performed, provided the conditions were at all formidable; but if symptoms of strangulation, peritonitis, hemorrhage, etc., had occurred, the operation was not warrantable.

3. When the obstruction occurred from intussusception, the operation should be performed at once.

4. That there was no real danger in the operation itself had been claimed by many.

CARBONIC ACID GAS AS AN ANTISEPTIC.

Dr. E. M. Moore, of Rochester, discussed Dr. Creyling's paper, and referred to the use of carbonic acid gas to *prevent the entrance of air into the abdominal cavity*, in any operation in which the cavity was opened.

The paper was then referred to the Committee on Publication.

PAPERS READ BY TITLE AND REFERRED.

On "Ovarian Tumors," by Dr. John Davidson, of Queens Co.

On "Thrombosis and Embolism," by Frederick Hyde, of Cortland Co.

DISLOCATION OF THE ACROMIAL EXTREMITY OF THE CLAVICLE DOWNWARD.

Dr. Walter B. Chase, of Windham, reported a case of the above character. The patient was a boy *eight* years of age, who received a blow directly upon the top of the shoulder.

Dr. Moore, of Rochester, suggested that it was possibly a case of epiphysal fracture, which was more likely to occur at that age than dislocation.

The paper was then referred to the Committee on Publication.

Dr. Joshua B. Graves, of Corning, reported a case of

INSTRUMENTAL DELIVERY.

The paper was referred to the Committee on Publication, and the Society adjourned to meet at 8 P.M.

First Day—Evening Session.

The Society was called to order at 8 P.M. by the President.

SCIENTIFIC GHOSTS.

Dr. John C. Dalton read a paper upon the above subject, in which he gave an interesting account of certain old theories, such as "the theory of organic molecules" [Buffon], and "the theory of inclusion" [Bonny]. It was a pleasing semi-scientific entertainment in the interval of more scientific communications.

ADDRESS ON OPHTHALMOLOGY.

Dr. H. D. Noyes, of New York, gave a broad and graphic outline of the progress which had been made in ophthalmology during the past century, and illustrated his subject by means of the lantern and screen.

The Society then adjourned to meet on Wednesday morning, at 9.30 o'clock.

Wednesday, February 5th—Second Day—Morning Session.

The Society was called to order at 9.30 A.M., by the President.

Prayer was offered by Rev. J. Humpstone.

The minutes of the sessions of the previous day were read and approved.

MEMBERS BY INVITATION.

Dr. Bailey, Chairman of Committee of Arrangements, reported the following as members by invitation:

Drs. S. B. Ward, C. S. Merrill, and W. J. Lewis, of Albany; Clinton Wagner, W. A. Hammond, and G. M. Beard, of New York; W. F. Bennett and D. R. Burrell, of Canandaigua; E. T. Rulison, Bath-on-the-Hudson; C. Sawyer, Au Sable Forks, Essex Co.; B. Wilson, Wolcott, Wayne Co.; Wm. Bassett Fish, Lakeville, Conn.; L. H. Hills, Cooperstown; George C. Smith, Rondout; T. M. McLean, Elizabeth, N. J.; and A. S. Coe, Oswego.

TREASURER'S REPORT.

Dr. Charles H. Porter, of Albany, Treasurer, presented his report, which was referred to an auditing committee.

ABUSE OF MEDICAL CHARITY.

Dr. Jacobi, Chairman of the Committee on the paper read by Dr. Sturgis yesterday, moved that the paper be referred to the county medical societies. The question was too important to be discussed in a short space of time. Carried.

Dr. Castle, of New York, moved that the paper be printed and distributed to all the county medical societies as soon as practicable. Carried.

COLLATION AT THE DELAVAN HOUSE.

Dr. Bailey, in behalf of the Albany County Medical Society, extended an invitation to the State Medical Society to attend a collation at the Delavan House this evening, after the delivery of the President's Address.

RHINOPLASTY.

Dr. A. C. Post, of New York, reported a case and exhibited photographs illustrating an operation of rhinoplasty for the correction of a deformity produced by the kick of a horse.

Referred to the Committee on Publication.

COMMITTEE TO COLLECT NAMES OF PHYSICIANS WHO HAVE LOST THEIR LIVES IN THE PURSUIT OF SCIENCE OR IN EPIDEMICS.

The President announced the following committee: Drs. Dimon, of Cayuga Co., H. D. Didama and Wm. Manlius Smith, of Onondaga Co.

PROPOSED LAW TO PREVENT THE ADULTERATION OF FOOD AND MEDICINES.

Dr. E. R. Squibb made a report upon the above subject, which was referred to the Committee on Publication. The proposed law was printed in the New York daily papers.

PAPERS READ BY TITLE AND REFERRED TO COMMITTEE ON PUBLICATION.

"Personal Observations upon One Hundred Cases of Cancer," by Dr. Thomas E. Satterthwaite, of New York; "Report of a Case of Catalepsy," by Dr. B. S. Hovey, of Rochester; "Obituary Notice of Samuel Hart, M.D.," permanent member of the Society from Kings Co., by Dr. R. M. Wycoff, of Brooklyn.

Dr. W. C. Wey, of Elmira, then reported

TWENTY-EIGHT CASES OF EFFUSION INTO THE PLEURAL CAVITY REQUIRING ASPIRATION.

Dr. W. S. Ely, of Rochester, referred to the history of one of the cases reported by Dr. Wey, and described the method he employed for retaining the drainage-tube in position, which was employed to keep the pleural cavity free from accumulations of pus.

The rubber tube used for securing drainage was passed through an opening, in a rubber plate, slightly smaller than the size of the tube. Over this a thin rubber band was placed which went around the body and held the tube in position. It was connected to a bottle, which contained a solution of carbolic acid, by means of small rubber tube, and the bottle could stand upon the floor or be carried in the patient's pocket.

Dr. Jacobi, of New York, discussed the paper and referred to the propriety of removing sections of ribs,

especially in adults, for the purpose, in empyema, of favoring sinking in of the walls of the chest and consequent closure of the cavity.

PAPERS READ BY TITLE AND REFERRED.

"Gangrene of the Leg produced by Embolism," by Dr. John Vedder, of Schenectady.

"Report on School Hygiene for the Town of Saugerties," by Dr. John Vedder. Referred to Committee on Hygiene.

"On Diabetes Mellitus," by Dr. N. C. Husted, of Tarrytown.

"Report of the Committee on Hygiene," by Dr. E. V. Stoddard, of Rochester.

ANATOMICAL RELATIONS OF ACUTE INFLAMMATION OF THE MIDDLE EAR.

Dr. J. S. Prout, of Brooklyn, read a brief paper upon the above subject, in which was set forth the importance of early paracentesis of the drum membrane for the relief of acute inflammation of the middle ear.

The paper was discussed by Drs. F. H. Hamilton, D. Webster, and H. D. Noyes, of New York.

INVITATION TO VISIT THE NEW CAPITOL.

An invitation was extended to the Society, by Mr. Palmer, to visit the New Capitol at 7.45 P.M., and listen to an explanation by Lieut.-Gov. Dorsheimer of two allegorical paintings in the Assembly Chamber.

Invitation accepted with thanks.

ON THE USE OF JABORANDI OR PILOCARPIN IN THE TREATMENT OF PUERPERAL CONVULSIONS.

Dr. Fordyce Barker, of New York, read a paper upon the above subject, which will be published in a future number of the Record.

The paper was referred to Committee on Publication.

NON-ASYLUM TREATMENT OF THE INSANE.

Dr. W. A. Hammond, of New York, read a paper upon the above subject, in which the position taken was that the medical profession in general was as well qualified to treat the insane as they could be treated in insane asylums. In many cases sequestration was not necessary, and in many others it was positively injurious.

The commencement of the trouble was usually recognized by the ordinary medical practitioner, showing his qualification at the most important stage of the disease. Asylums were not curative. For those who had comforts of home, and were not dangerous either to themselves or to others, asylums were not only not necessary, but were highly pernicious in their influence upon the patient.

The paper was discussed by Dr. G. M. Beard, of New York, who stated that he had found in practice that many patients in the early stage of insanity could be treated successfully at home, provided they had sensible friends. He was often called upon to decide whether or not to send cases to asylums or treat them at home, and had never repented of having decided to use home treatment. The subject had occupied his thoughts for some years. He cited several cases illustrating his position, but disclaimed all hostility to asylums. We needed asylums, and more of them. In regard to asylum or non-asylum treatment, each case of early insanity must be judged by itself, taking into account the nature and scope of the malady and whole environment of the patient.

The paper was referred to the Committee on Publication.

The Society then adjourned to meet at 3 P.M.

SECOND DAY.—AFTERNOON SESSION.

The Society was called to order at 3 P.M., by Dr. S. O. Vander Poel, of Albany.

ON THE TREATMENT OF HEMORRHAGE IN ABORTION.

Dr. W. T. Lusk, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

The paper was discussed by Dr. Fordyce Barker, of New York, and Dr. R. H. Sabin, of West Troy.

Dr. Bailey introduced to the Society Dr. O. G. Seldon, delegate from the Wisconsin State Medical Society; also Dr. Abner M. Smith, of Pittsfield, delegate from the Massachusetts State Medical Society.

MEMBERS BY INVITATION.

Drs. S. A. Russell, P. J. Keegan, T. K. Perry, Harriet A. Woodward, O. D. Ball, of Albany; A. W. Shirland and R. H. Sabin, of West Troy; Wm. H. Hays, of West Albany; Wm. H. Robb and Jas. H. Scoon, of Amsterdam; E. E. Brown, of Lowville, Lewis Co., and G. D. Dunham, of Plattsburgh.

Dr. John P. Gray, of Utica, read a paper on

POINTS IN VENTILATION.

It was substantially a description of the fan-plan in operation at the State Lunatic Asylum, and introduced there in 1853.

It was discussed by Drs. Moore, Bell, and Castle, and then referred to the Committee on Publication.

CATARACT EXTRACTION.

Dr. Herman Knapp, of New York, made a brief communication upon the above operation.

Reference was made to certain technical points in the operation, consisting in a modification of Graefe's method of opening the capsule. It consisted in a horizontal section through the periphery. The results in fifty-eight successive cases were given, and were encouraging for the modification.

Communication referred to Committee on Publication.

SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

Dr. R. F. Weir, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

The paper was discussed by Drs. A. C. Post and F. H. Hamilton, and referred to Committee on Publication.

READ BY TITLE AND REFERRED.

"Biographical Sketches of Dr. E. R. Peaslee, of New York, and Dr. A. M. Vedder, of Schenectady," by Dr. F. A. Castle, of New York.

"A Communication from the Medical Society of the County of Kings, on Hygiene," by Dr. F. H. Stuart, Chairman. Referred to Committee on Hygiene.

"Milk and Lime-Water as Food and Medicine in the Neuroses," by Dr. E. N. Chapman, of Kings Co.; "Phthisis Pulmonalis," by Dr. Jas. R. Leaming, of New York; and "Obituary Notice of H. B. Salmon, M.D., of Stuyvesant Falls," by Dr. P. V. S. Pruyn, of Kinderhook.

REMEDIAL AND FATAL EFFECTS OF CHLORATE OF POTASSA.

Dr. A. Jacobi, of New York, read a paper upon the above subject, which was referred to the Committee on Publication. It will be published in a future number of the Record.

It was discussed by Dr. French.

PRESENTATION OF SPECIMENS.

Dr. Fisher, of Sing Sing, presented a specimen of *cystic osteo-sarcoma* affecting the upper portion of the tibia, and also a specimen of *chylous urine*.

METRIC SYSTEM.

Dr. E. Seguin, of New York, made a report on the metric system. He urged the adoption, by the physicians of this State, of the International Metric System, because it was a standard of uniformity in all the sciences. Although its ultimate adoption was inevitable, by postponement in the adoption of this common standard we were cut short of what was truly new in modern medicine. England was ready to adopt it, and many of the eminent physicians and chemists in this country were also ready to adopt it, and its use had also been recommended by several representative medical societies in this country.

Discussion postponed until Thursday morning.

The Society then took a recess until 7.45 P.M.

Evening Session—Annual Address by the President.

The Society met in the Assembly Chamber in the New Capitol, and was called to order at 7.45 by Dr. S. O. Vander Poel, of Albany.

Lieut.-Gov. Dorsheimer was then introduced, and in a pleasing address explained the two allegorical paintings.

The President then delivered the annual address, having chosen for his subject,

THE RELATIONS OF THE MEDICAL PROFESSION TO THE STATE.

After a brief introduction, the subject was presented under six heads:

FIRST—AS WITNESSES TO AID IN THE DETECTION OF CRIME OR THE BREAKING UP OF NUISANCES.

It was probable that the singular contradictions of some our medical experts had excited the wonder of laymen and a sense of shame in medical men. All intelligent laymen knew that there must always be different shades of opinion upon the same subject in a science so unsettled and progressive as our own; but nobody yet knew why it was that experts could always be found who honestly believed that no antimony ever was in a certain stomach, when it had already been discovered by supposed reliable authority, or why one man was pronounced to be raving mad by Professor A., and competent to take charge of vast estates by Prof. B. The State should summon, the State should pay experts, and they should act as associate judges, to aid the real judges in getting the truth before the jury. The medical man should be placed in a position where he might be able to treat a medico-legal case as he would a dead body under his scalpel. The subject of the adequate payment of experts came under this head, and the belief was expressed that experts should not be taken away from their ordinary duties without a compensation that would, at least to some considerable extent, recompense them.

SECOND—AS DEFENDANTS IN SUITS FOR MALPRACTICE.

It was a matter of mortification that there should be any necessity for such a relation of the profession of medicine to the State as this. But physicians were, unfortunately, not exempt from the frailties and faults of humanity, and they must expect to answer at the bar of justice for any crimes they might commit. He frankly admitted, however, in the outset, that we ourselves were in a measure to blame for the tone of expression, about the work of physicians, which was somewhat prevalent among the people: "If Dr. —— had not done so and so," or, "If he had done so and so," in the common phrase, the patient would not have died. The idea of considering the result as largely due to personal and extraordinary gifts was the basis of the notion among the laity that the attending physician was to blame if an eye was lost, a fractured limb was shortened, or if a patient died from disease. One of the remedies for unjust attacks upon the faithfulness and skill of medical men must be found in such an elevated tone of professional sentiment as would prevent us from imitating the vilest of birds, that are said to foul their own nests.

THIRD—AS EDUCATORS OF THE PHYSICIANS OF THE FUTURE.

Although from the very early history of this country the community had taken an active interest in education, and even in special education—that of ministers, lawyers, and teachers—scarcely anything had been done for the instruction of medical students, except by the individual efforts of men who elected themselves to be professors in the medical colleges which they founded. All that the State had to do with those colleges was to prescribe that students in in them should study three years, that they should be twenty-one years of age when they graduated, at which time they should also be possessed of a good moral character. It was greatly to the credit of the medical colleges of this State that they had maintained medical teaching at a high standard, in spite of the indifference and the hostility which existed. Whatever might be said to the contrary, any exact examination would show that the medical teachers of the State had always been foremost in the efforts to extend sound knowledge. Apt as was the medical press to decry medical professors, it might be safely asserted that the temptations of their irresponsible position had not overcome them, but they were among the chief promoters of scientific culture. Admitting all that, there were so many evils in the present system that a change was imperatively demanded. We needed an examination for admission, a graded and fuller course, and a more rigorous final examination. He thought that, if we turned our eyes to the State of Massachusetts, we should find there the only certain measures of reforming our medical colleges. He held that the State could not undertake the work. The State, as such, however much we might ask of its individual members, should not be expected to assist, even much less, to endow medical colleges. The profession itself should secure those endowments. If educated laymen did not know that a real university should have a medical school as a part of it, we must teach them all that; then they would endow our schools. Here was the kernel of the whole matter of reform in medical education. The present necessary laxity in admissions and in final examinations fairly overwhelmed the land with physicians. But how should the heavily burdened community find means for the new call upon its benevolence? By sparing from its useless expenditures that which was here so much needed. Under this head the question of legalizing the dissection of unclaimed dead bodies was considered.

FOURTH—AS MANAGERS OF INSTITUTIONS FOR THE CARE OF THE SICK AND INJURED.

There was a widely diffused belief among business men and lawyers that physicians and clergymen had

very little of the ordinary tact necessary for the financial care of large interests. Distrust of the business and executive capacity of medical men, mingled with a notion that they were contentious, were the real reasons for the almost universal exclusion of medical men from the governing boards of hospitals and dispensaries. Put physicians in fair proportion on the boards of erection and management of hospitals, and the present condition of these institutions would soon be changed, and the system would be inaugurated in civil hospitals that had given to the medical officers of the United States army a wide and enduring fame.

FIFTH — AS PROTECTORS OF THE COMMUNITY FROM QUACKERY.

While we might not ask the State to endow medical schools, we might certainly expect that it would protect its citizens from well-defined quackery. The State could not catalogue the drugs that might be used, nor name the doses, but it could see to it that no one was allowed to prescribe for disease who had not furnished evidence of a satisfactory knowledge of anatomy, physiology, and chemistry. It should also interfere to prevent the sale of so-called patent medicines and of adulterated medicines and food. A State that would not do that, should, in all consistency, allow mad dogs to run in the streets, lunatics to go at large, and gunpowder to be stored in every house, and leave its railroad crossings without guards or signals. What was wanted was a board of examiners made up of the best men from the colleges and the profession, who should determine—not the orthodoxy of a candidate as to the doses of drugs or the uses of cold water and vegetable medicines, but as to whether he had been well grounded in the structure and functions of the human body, the remedies for poisons, the rules for action in emergencies, and the principles of diagnosis, a knowledge of which would, at least, protect his patients from scandalous malpractice.

SIXTH — AS SANITARY ADVISERS TO THE COMMONWEALTH.

That was perhaps the most comprehensive and important of any of our relations to the State. There were, however, still many obstacles, on the part of the powers that were, in the way of yielding to physicians as a class, even in matters purely sanitary. Physicians were still very largely regarded as fit only for the necessary but narrow walk of their calling—in prescribing for disease that had already broken out, and for taking charge of accidents that had already occurred. *Preventive* medicince, which we were most anxious about, was not yet fully appreciated by our lawmakers. The physician should have the same prerogative in the State as in the family. There should be a board of health in every county and in every town, and that board should have no man upon it who had not a medical, scientific, or legal education. Not a schoolhouse, not a jail, not a hospital, not a sewer should be built unless competent sanitary advice, with power to enforce it, was given. There was also room for reform in the supervision of the hygienic condition of prisons, public charities, private and public insane asylums. There was also room for reform and work for the closing years of the nineteenth century in submitting to the tests for the perception of colors every railway and steamship official. We should follow the example of Sweden, and demand such a searching investigation as would put in other positions men whose visual defects now rendered them useless and dangerous in places where colored signals were used.

What could be done in the way of preventive medicine was perhaps nowhere better shown than in the exemption of the city of New York from cholera and yellow fever. Reference was then made to the recent epidemics of yellow fever at the South, and also to the necessity of placing medical men on the boards which had charge of our public schools.

Two things must be earnestly seen by us, if we would hasten the day when the medical profession should assume its true relations to the State. They were unity of action and a jealous regard for our reputation as a profession. With united front let us, who struggled for the prolongation of life and the mitigation of disease, continue our advance in the same column with those who, by cultivating the soil, by humane and wise legislation, and the administration of law, by the finding out of many inventions, by the inculcation of the principles of morality and religion, contended for the land and a time when "the wilderness and the solitary place should be glad for them, and the desert should rejoice and blossom as the rose," and the Eternal God should wipe all tears from the faces of men.

The address was listened to with untiring attention, and received marked demonstrations of approbation.

The Society then adjourned to meet on Thursday at 9.30 A.M.

COLLATION AT THE DELAVAN HOUSE.

After the President's address, the members of the Society and invited guests were handsomely entertained at the Delavan House, by the Medical Society of the County of Albany.

THURSDAY, FEBRUARY 6TH.—THIRD DAY.—CLOSING SESSION.

The Society was called to order at 9.30 A.M., by the President, and prayer was offered by DR. ALFRED C. POST, of New York.

On motion, the reading of the minutes was dispensed with.

DR. BAILEY, Chairman of the Committee of Arrangements, introduced DR. O. A. HORR, delegate from the Medical Society of the State of Maine, and announced the following

MEMBERS BY INVITATION.

Drs. H. R. Starkweather, Franklin Townsend, Jr., G. W. Papen, and William Morgan, of Albany, and Jas. D. Featherstonhaugh, of Cohoes.

DR. CASTLE, Chairman of the Committee on the President's Address, reported that the Society was not competent to take any action with reference to the Medical Register alluded to, and that the expense of social entertainments during the session be left in the hands of the Committee of Arrangements.

The report was adopted.

BY-LAWS OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

DR. WEY, Chairman of Committee on By-Laws, reported favorably on the revised by-laws of the Medical Society of the County of New York.

The report was accepted and adopted.

The report, laid upon the table yesterday, was, on motion made by Dr. Wey, taken up, amended, and adopted.

DR. KENDALL, of Onondaga, made a report as

DELEGATE TO THE MEDICAL SOCIETY OF THE STATE OF MAINE,

which was referred to the Committee on Publication.

PUBLICATION OF TRANSACTIONS.

Dr. Smith, the Secretary, made a report from the Committee on Publication, with reference to the resolution introduced by Dr. Castle on Tuesday.

The committee recommended that no change be made in the present regulations concerning the publication of the transactions of the Society.

Dr. Piffard, of New York, moved that the report be adopted. He made the motion for the purpose of bringing the question before the Society, but should vote against its passage for the reason that the New York delegates had received instructions to oppose its adoption.

The question was discussed by Drs. Piffard, Wey, and Castle. The report of the Committee was adopted by a rising vote—ayes, 43; nays, 19.

METRIC SYSTEM.

Dr. F. A. Castle, of New York, introduced a resolution asking the State Medical Society to request all who might present papers at future meetings of the Society, to employ the metric system in their writings, and that the metric system should be exclusively used in the published proceedings of the Society. Adopted.

PRESIDENT'S ADDRESS.

Dr. A. N. Bell, of Brooklyn, moved that 5,000 copies of the President's Address be printed and distributed to the physicians in the State, the members of the Legislature, and the members of the State Government. He urged it as a measure to benefit public sanitation. Adopted.

SUPPRESSED MINUTES.

Dr. Piffard moved that the Committee on Publication be directed to include in the next volume of the Transactions the suppressed minutes of the meeting held Feb. 1, 1876.

Dr. Wey remarked that he was not competent to vote upon the motion, and asked for a brief explanation.

Dr. Piffard explained by saying that a meeting was held Feb. 1, 1876, and that the minutes of that meeting had not been published. The object of his motion was to secure their publication.

The Secretary said he knew of no minutes of such a meeting, except that some twenty-two names were registered as having attended it. He supposed the meeting was held, if held, to make sure that there was no illegality concerning subsequent stated meetings.

Dr. Wey moved that the matter be referred to the Committee on Publication, with power.

Dr. Frazier, of Oneida Co., remarked that it was most singular that these queer questions should arise for action by the country members. First, a resolution was offered that no transactions at all be published; in a few moments a resolution was offered relating to their publication; at one moment there were journals sufficient for all purposes, and at the next moment our transactions were vastly important, and the next moment they were good for nothing, and he moved to lay the whole subject on the table. Carried.

Dr. Castle moved that an adjourned annual meeting be held in the city of New York in October, at which no business should be transacted except the reading and discussion of scientific papers.

Dr. Kendall moved to lay the subject upon the table. Carried.

AUDITING COMMITTEE.

The President appointed Drs. Piffard, N. C. Husted, and E. C. Lyman, as a committee to audit the Treasurer's Report.

SURGICAL USES OF THE ACTUAL CAUTERY.

Dr. A. C. Post, of New York, read a paper upon the above subject, which will appear in a subsequent number of the Record.

Dr. Husted, of the Auditing Committee, reported that the account of the Treasurer had been examined, found correct, and was approved by the Committee.

The report was accepted and adopted.

CAVERNOUS ANGIOMA OF THE TONGUE.

Dr. E. R. Hun, of Albany, presented a paper upon the above subject, which was read by title, and referred to the Committee on Publication. He also presented the patient and the portion of tongue removed. It was removed by means of the écraseur, twenty-seven minutes being consumed in the operation. Speech and ability to eat were restored.

WRITER'S CRAMP.

Dr. G. M. Beard, of New York, gave the conclusions from an analysis of one hundred cases of writer's cramp and allied affections.

The conclusions will be published in a future number of the Record.

THE INFLUENCE OF THE OPTICAL CONDITION OF THE EYE UPON THE DEVELOPMENT OF CHARACTER.

Dr. E. G. Loring, of New York, read a valuable paper upon the above subject, in which he urged the importance of correcting optical defects, such as near-sightedness, long-sightedness, and astigmatism, *before* the education of the child was commenced. The conclusion reached by him was that the eyes of every child should be carefully examined before entering *any* school, and that the Legislature should pass a law compelling an examination of the eyes before the child was permitted to enter our public schools. The paper was referred to the Committee on Publication.

ON THE ADIRONDACK REGION IN THE TREATMENT OF PULMONARY PHTHISIS.

Dr. Alfred L. Loomis, of New York, read a paper upon the above subject, which will be published in a future number of the Record.

ELIGIBILITY TO PERMANENT MEMBERSHIP.

The Secretary remarked that it had been the custom when a person, eligible to permanent membership, removed from one district to another, to transfer his name to the list of those eligible to permanent membership from the district to which he removed. He asked for an opinion from the Society with reference to the correctness of the procedure. The Society endorsed the custom.

SALARIES OF THE SECRETARY AND THE TREASURER.

Dr. Squibb offered a resolution providing for an increase of the salary of the Secretary to $350, and that the Treasurer be allowed $100. Adopted.

REPORT OF COMMITTEE ON NOMINATIONS.

Dr. C. A. Robertson, of Albany, read the following report:

For President—Dr. Henry D. Didama, of Syracuse, Onondaga County.

For Vice-President—Dr. Nathaniel C. Husted, of New York.

For Secretary—Dr. Wm. Manlius Smith, of Manlius, Onondaga County.

For Treasurer—Dr. Chas. H. Porter, of Albany.

For Censors—Southern District—J. W. S. Gouley, of New York; George J. Fisher, of Sing Sing; and Edward H. Parker, of Poughkeepsie. *Eastern Dis-*

trict: John P. Sharer, of Little Falls; Norman B. Snow, of Albany; and E. D. Ferguson, of Troy. *Middle District:* M. M. Bagg, of Utica; Geo. W. Cooke, of Otego; and Chas. G. Bacon, of Fulton. *Western District:* C. C. Wycoff, of Buffalo; Harvey Jewett, of Canandaigua; and E. V. Stoddard, of Rochester.

Committee on Correspondence—First District, T. A. Emmet, of New York; *Second District*, D. Guernsey, of Amenia; *Third District*, R. H. Ward, of Troy; *Fourth District*, T. B. Reynolds, of Saratoga; *Fifth District*, S. G. Wolcott, of Utica; *Sixth District*, J. G. Orton, of Binghamton; *Seventh District*, H. B. Wilbur, of Syracuse; *Eighth District*, C. E. Rider, of Rochester.

Committee on Prize Essays—W. W. Ely and E. M. Moore, of Rochester; and T. F. Rochester, of Buffalo.

Committee on By-Laws—Wm. C. Wey, of Elmira; Wm. Manlius Smith, of Manlius; and Wm. H. Bailey, of Albany.

Committee on Publication—J. P. Dunlap and Alfred Mercer, of Syracuse; Wm. Manlius Smith, of Manlius; and Chas. H. Porter, of Albany.

Committee on Hygiene—E. V. Stoddard, of Rochester; J. G. Orton, of Binghamton; D. Guernsey, of Amenia; C. R. Agnew, of New York; M. H. Burton, of Troy; E. Hutchinson, of Utica; and Harvey Jewett, of Canandaigua.

Permanent Members—First District: Horace P. Farnham and Wm. T. White, of New York; Arthur Matthewson and J. S. Prout, of Brooklyn. *Second District:* John Davidson, of Hempstead, Queens County, and Geo. C. Smith, of Rondout, Ulster County. *Third District:* B. A. Mynderse, of Schenectady, and Walter B. Chase, of Windham, Greene County. *Fourth District:* Asa W. Tupper, of North Granville, Washington County, and Z. B. Bridges, of Ogdensburgh. *Fifth District:* A. S. Coe, of Oswego, and J. Mortimer Crawe, of Watertown. *Sixth District:* C. H. Stiles, of Owego, Tioga County, and M. L. Bennett, of Watkins, Schuyler County. *Seventh District:* Theodore Dimon, of Auburn. *Eighth District:* William Ring and John Cronyn, of Buffalo.

Honorary Members—L. Auguste Mercier, of Paris, France; Christopher Heath, F.R.C.S., of London, England; Henry J. Bowditch, of Boston, Mass.; and Greenville Dowell, of Galveston, Texas.

Eligible to Honorary Membership—W. S. Teevan, F.R.C.S., of London, England, and Gen. Joseph B. Brown, U. S. Army, North Tarrytown.

DELEGATES

To the Medical Society of the State of Pennsylvania—Joshua B. Graves, of Corning.

To the Massachusetts Medical Society—J. L. Banks and H. P. Farnham, of New York, and P. R. H. Sawyer, of Bedford, Westchester Co.

To the Connecticut Medical Society—A. T. Douglass, of Rondout, H. D. Noyes, of New York, and J. C. Hutchison, of Brooklyn.

To the Medical Society of New Jersey—N. C. Husted and Robert Newman, of New York; William Govan, of Stony Point, and J. C. Hutchinson, of Brooklyn.

To the Vermont State Medical Society—A. J. Long, of Whitehall, Washington Co.; W. W. Porter, of Syracuse, Onondaga Co., and L. Barton, of Williamsborough, Essex Co.

To the Rhode Island Medical Society—James C. Hutchinson, of Troy.

To the Missouri State Medical Society—J. R. Boulware, of Albany.

To the Illinois and Iowa State Medical Societies—J. Kneeland, of Onondaga.

To the Medical Society of the State of Ohio—Thos. R. Pooley, of New York.

Censor for the College of Medicine of Syracuse University—Jas. S. Bailey, of Albany.

Delegates to the American Medical Association—H. R. Ainsworth, Addison; S. G. Wolcott, Utica; C. C. Wycoff and Thos. F. Rochester, of Buffalo; J. M. Minor, J. H. Hinton, and J. W. S. Gouley, of New York; J. C. Hutchison, of Brooklyn; D. B. St. John Rhosa, of New York; Albert Van Derveer and Chas. A. Robertson, of Albany; Stephen Smith and F. H. Hamilton, of New York; John P. Gray, of Utica; A. C. Post and H. D. Noyes, of New York; Wm. C. Wey, of Elmira; Frederick Hyde, of Cortland; E. H. Parker, of Poughkeepsie; Theodore Dimon, of Auburn; E. M. Moore and W. S. Ely, of Rochester; P. R. H. Sawyer, of Westchester Co.; H. D. Didama, of Syracuse; Thos. M. Johnson, of Buffalo.

Before the reading of the report, Dr. Squibb remarked that the Committee believed it to be proper to drop the Committee on Pharmacology, allowing it to be replaced by the delegation to the Convention for Revising the U. S. Pharmacopœia, in 1880.

It was also the opinion of the committee that a delegation consisting of twenty-five, instead of thirty-seven members, was sufficent to represent the Society in the American Medical Association.

The report was accepted and unanimously adopted.

REPORT FROM THE COMMITTEE ON BY-LAWS —ILLEGALITY OF A BY-LAW ENACTED IN 1872.

Dr. Wey, Chairman of the Committee on By-Laws, reported with reference to the legality of a by-law enacted in 1872, concerning medical students, that, after consulting two of the judges of the Court of Appeals, the conclusion was reached that the by-law was *illegal*, and that neither State nor county societies were empowered to take such action as indicated in the by-law enacted.

The report was adopted.

On motion, the illegal by-law was rescinded by the Society.

TRAUMATIC ORIGIN OF SUBFASCIAL, DEEP-SEATED, OR COLD ABSCESS, COMMONLY CALLED CONSTITUTIONAL OR SCROFULOUS ABSCESS.

Dr. Lewis A. Sayre, of New York, read a paper upon the above subject, which will appear in a future number of the Record.

It was briefly discussed by Drs. E. M. Moore, of Rochester, and A. L. Loomis, of New York, and referred to the Committee on Publication.

WARM WATER IN THE TREATMENT OF TRAUMATIC GANGRENE.

Dr. F. H. Hamilton, of New York, related his latest experience in the use of hot water in the treatment of traumatic gangrene. It was favorable to the agent employed.

Dr. E. M. Moore, of Rochester, regarded the plan of treatment brought forward by Dr. Hamilton as one of the greatest advances in surgery.

PAPERS READ BY TITLE AND REFERRED TO THE COMMITTEE ON PUBLICATION.

"Eserin and Pilocarpin in Ophthalmic Therapeutics," by C. S. Bull, M.D., of New York.

"On the Use of Water in the Treatment of Diseases of the Skin," by L. D. Bulkley, M.D., of New York.

"Report of Delegate to the Medical Society of the

State of New Jersey," by H. S. Crandall, M.D., of Madison Co.

"On the Value of Carbolized Animal Ligature Applied Antiseptically in the Treatment of Aneurism," by Stephen Smith, M.D., of New York.

"Obituary Notice of Joseph Northrup, M.D., of Albany," by F. C. Curtis, M.D., delegate from the Albany County Medical Society.

"Ulcerative Phthisical Laryngitis: Value of Tracheotomy in its Treatment," by Beverley Robinson, M.D., of New York.

"Report of Nine Cases of Uterine Fibroids, with Remarks," by A. Van Derveer, M.D., of Albany.

"Causes of Death during Surgical Operations," by A. L. Ranney, M.D., of New York.

On motion, made by Dr. Hutchison, of Brooklyn, the thanks of the Society were unanimously tendered to the Capitol Commissioners for the use of the old Assembly Chamber during the meeting, and for the use of the new Assembly Chamber on Wednesday evening.

The President thanked the Society for the uniform courtesy extended to him by the Society, and declared the Society adjourned to meet in Albany on the first Tuesday in February, 1880.

Correspondence.

THE PUBLIC HEALTH ASSOCIATION AND NATIONAL ACADEMY OF SCIENCES.

To the Editor of The Medical Record.

Sir:—In your issue of the 1st inst., there are some editorial remarks regarding the Withers bill, which is supposed to embody the views of the American Public Health Association as to what the National Health Commission should be, which are capable of conveying impressions that are not the facts of the case.

It is stated, in referring to the memorandum furnished by the Public Health Association, as follows: "It is further urged, in the memorandum of the Health Association referred to, that the selection of a committee for this purpose is of the greatest importance, and that consequently it should be left to the members of the National Academy of Sciences. Probably as an improvement on this suggestion, the said Academy was designated in the bill as the proper body to take the matter in hand. We cannot believe that the Public Health Association is willing to father the bill as it now stands—to leave sanitary matters to a body of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects."

The very solicitude which was felt by the Association that the appointment of the sanitarians to compose the National Health Commission should not be influenced by "political or local" considerations, caused the Public Health Association to adopt this mode of selecting the men.

The language used in the memorandum prepared for general information is as follows: . . . "After careful consideration of various plans proposed to secure this end, which is felt by all to be vitally necessary to success, we are of opinion that the simplest and surest method, and one which will command the most general approval among the scientific and professional men of the country, is that Congress should request the National Academy of Sciences to designate the members of the Commission."

There are, it seems, legal or constitutional reasons why Congress cannot, in its prescribed powers, be aided by the wisdom of the National Academy in its knowledge of men, so as to designate those whose acknowledged ability would meet universal approval. In section six of the memorandum, which suggests this manner of appointing the Commission, this difficulty is referred to.

The Public Health Association could not properly mention any of their own number as those who should be appointed members of the Commission, although there are many without doubt richly qualified, and sought the aid, through Congress, of the National Academy, so that the President of the United States might be furnished with a list of names of men who are distinguished by their labors, of ability and success in sanitary science, and from this list the members of the Commission should be chosen.

If the President cannot be advised by the National Academy regarding the appointment of persons to positions, the duties of which, to be properly discharged, require that those holding them shall have special scientific qualifications, from what unprejudiced source shall he receive this information?

Sanitary science will probably never be absolutely separated from that of medicine; yet it is no less true that the investigation of causes of disease, is, at the present moment, within the field of labor of those gentlemen composing the National Academy.

Perhaps we will not disagree in the opinion that were the whole matter of sanitary supervision of the United States turned over to the National Academy, its success would suffer less violence than were the selection of the Commission entrusted to purely political managers. I have no doubt, should any law be passed delegating these matters to the Academy, the gentlemen composing that corporate body would act with becoming wisdom. Professor Simon Newcomb, for instance, would not attempt to investigate the causes of yellow fever or diphtheritis from the Observatory in Washington, by observations through his large telescope!

Trusting that I have shown that the sole object that the Public Health Association had in view was to secure men highly qualified for the duties required of them,

I am, very respectfully,

B. F. Gibbs,

Medical Inspector U. S. Navy, and Member National Committee Public Health Association.

Washington, D. C., Feb. 5, 1879.

[So far as the facts of the case are concerned, we agree perfectly with our esteemed correspondent. We certainly meant what we said in the paragraph quoted, and we fail to see how we could convey an erroneous impression. The Public Health Association did ask that the National Academy of Sciences should name the members of the Commission, and it is not disproved that the Withers bill leaves the whole matter virtually in the hands of the aforesaid Academy. It is well enough for the Association to place the appointments beyond the reach of politics; but with due deference to the arguments of Dr. Gibbs, we still object to the course suggested. We are so confident that it will not meet with "the most general approval among the scientific and professional men of the country," that we are willing to risk a reiteration of our protest.—Ed.]

PROF. STILLÉ AND ACUTE ARTICULAR RHEUMATISM.

To the Editor of The Medical Record.

Dear Sir:—In the lecture on "Acute Articular Rheumatism," by Prof. Stillé (Medical Record, Jan. 18, page 50), he says: "I desire to lay great stress upon the statement that the treatment of simple acute articular rheumatism may be abandoned to palliatives and nature." "No treatment was ever invented which stopped a case of acute articular rheumatism."

In a practice of fifteen years, three of which were in the army, I have had some experience in this disease. I have had the pleasure of listening to a course of lectures by Dr. Austin Flint, and have heard him make the statement quoted, and I must say that my experience leads me to differ from both these gentlemen. Were I suffering from the disease as I have have seen others suffer, I should hardly be content to be left to palliatives and nature, fully persuaded as I am by abundant testimony in The Medical Record and other journals, as well as some experience of my own, that we have in salicylic acid and its salts a remedy which will frequently, to say the least, cut short the attack, and that speedily.

I started out with the notion, Dr. Watson's, I think: "Rheumatism, well treated, runs seven weeks; not treated at all, it runs forty-nine days." I now think that such teaching is erroneous and mischievous. I believe that the physician is culpable who does not cure the majority of cases of simple acute rheumatism in less than two weeks, and who does not cure many in less than one week; and I believe that under the administration of salicylic acid there will generally be decided and permanent improvement in two days.

In subacute cases, especially in a malarial climate, salicin is very efficient.

Cases.—L. H., mulatto, aged 25, had been at Union Depot, St. Louis, about a month washing floors and windows; seized with acute rheumatism Jan. 25th. I saw him the 28th, in the evening. He was on his back in bed; right knee much swollen, and so painful that he had not been able to get any rest night or day. On my approaching him he was very fearful lest I should touch it. He had not slept the night before, and said he was getting worse and worse; begged me to give him something to relieve the pain and make him sleep. I gave him a dozen ten-grain powders of salicylate of soda, with directions to take one every two hours till he was better; then every four hours.

Jan. 29.—Better; can move knee; slept well the night before; felt better after taking the second powder; had taken eight powders; was now taking them every four hours.

Jan 31.—Wants to get up; says he can walk as well as I can; says the powders acted like magic.

And yet "No treatment was ever invented which stopped a case of acute articular rheumatism."

May 28, 1877.—Mrs. H., aged 35; acute rheumatism; high fever, great pain and swelling in arms and legs, shoulder and knee. As in the other case, pain so great as to prevent sleep. Ordered salicylic acid, twenty grains every two hours, with enough bicarbonate of soda to render it soluble in water, till better, then three times a day. Called again May 30th, and found her in the act of springing into bed as I approached her room. She slept well the first night after taking the medicine. From imprudence she had a slight return, but the same treatment promptly relieved her.

In one case, a severe one, of a young farmer, I thought I did well to get him out of his bed and able to work in three weeks, under the use of the alkaline treatment with electricity.

In no case have I seen even slightly bad effects from salicylic acid, although, in one case, I administered nearly an ounce in less than four days. Its action is prompt in relieving the pain and reducing the fever. In no case, when using it, have I found external applications necessary.

B. J. Bristol.

Webster Groves, St. Louis Co., Mo.

SNAKE IN THE EYE OF A HORSE.

To the Editor of The Medical Record.

Dear Sir:—Doctor Charles J. Kipp, of Newark, N. J., has given in a recent number of The Medical Record a very interesting account of "A Filaria in the Eye of a Horse," as seen by him and operated for a year ago in said city. It recalls to my recollection a similar account read by me a long time previously, in the Transactions of the American Philosophical Society, Vol. II., published in Philadelphia, 1786. The account was contained in a monograph entitled "Of a Living Snake in a Living Horse's Eye, and of Other unusual Productions of Animals," read before the Society June 5, 1782, by John Morgan, M.D., F.R.S. London, Professor of the Theory and Practice of Physic, Philadelphia. The author, after some extended remarks upon the subject of equivocal generation, apologizes for the interest he took in the phenomena he was describing; professes his want of credulity and his little liability to be humbugged, and insists that he could not be deceived as to the reality of the object he describes. He claims that "from the closest ocular examination, with unwearied attention, repeated more than once, he conceives he is not mistaken in asserting that there is a real snake in the eye, which, from the vivacity and briskness of its motion, exceeds that of any worm, and equals that of any kind of serpent he has ever seen." The horse alluded to was on exhibition in Philadelphia in Arch street, between Sixth and Seventh streets, as a great curiosity, and was advertised in the Pennsylvania Gazette, May 23 (1782), and is described by Dr. Morgan as follows:

"The horse in whose left eye this extraordinary *lusus naturæ* is visible, is of a sorrel color, nine years old; it belonged to Dr. Dayton, near the lines at Elizabethtown, and, I am told, appeared to have no uncommon appearance in either eye till within a few months ago. The first particular circumstance which excited the owner's attention was, that having lent him to a friend to take a ride in a chair, although it was not known to be vicious or unruly before, it could not now be kept under any government, but ran away with, and dashed the chair to pieces. The right eye still continues in a sound state. Soon after, viz., about ten weeks ago, Mr. Richard Wells, merchant, of this city, a gentleman of probity and of great philosophic knowledge, being at Elizabethtown in company with Dr. Dayton, this gentleman told him he would show him a curiosity as great, perhaps, as he had ever seen, namely, a living snake in a living horse's eye. Mr. Wells then desiring to see it, upon looking into the eye, discovered the animal very plainly, in a constant serpentine motion, but necessarily in a somewhat convoluted form, as its length was equal, as nearly as he could judge, to two diameters and a half of the eye, which could not measure less than between three and four inches. The head and tail, or, if you please, the two extremities of the animal, were then visible, and the horse's eye still retained its transparency enough to

admit seeing the whole of the snake distinctly. The horse was soon after purchased by a free negro to bring to Philadelphia for show. At present, apparently, from the brisk and almost constant motion of the animal, which is somewhat increased in length since the inspection at Elizabethtown, and which is as thick as a knitting-needle or piece of common twine, as nearly as can be determined through the intervening medium, the aqueous and vitreous humors of the eye are confounded (the fine cellular texture of the latter being broke down), and tinged with the softest part of the crystalline, so as to assume somewhat of a white milky appearance, bordering on the color of a cataract. The iris appears to be greatly dilated, or rather wholly destroyed. For the septum or partition which separates the anterior from the posterior chambers in a sound eye, must be broken down, as the animal, or, to speak like a sceptic, the animal appearance of a snake is continually receding into the fundus and back part, and by times coming forward into the anterior part of the eye, with a convoluted brisk motion. I cannot think a snake of the same size, moving briskly in a tumblerful of fair water, or of water discolored with a teaspoonful of milk, would be more visible; but the coats of the eye and humors have now somewhat of a milky appearance, or color of an incipient cataract."

He concludes the horse is blind in the affected eye —the lids of it being closed, and only opened on striking the horse smartly on the back with the open hand. The medical faculty were nonplussed by the phenomena, and at a loss to account for the appearance on common principles or from known diseases. The great question with them was, if it were a real snake or living animal, how did it get into the horse's eye?

Thinking that from the rarity of the phenomena as described by Dr. Kipp, and that Dr. Morgan's case was doubtless the first observed in this country, it might prove of sufficient interest, I transcribe it for the columns of THE MEDICAL RECORD.

R. S. SWORDS.

NEWARK, N. J., 24 February, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 26 to February 8, 1879.

SEMIG, B. G., 1st Lieut. and Asst.-Surgeon. Assigned to duty at Fort Johnston, N. C. S. O. 18, Dept. of the South, Jan. 28, 1879.

OLEAGINOUS SOLUTIONS OF CHLORAL. Chloral hydrate is soluble in two parts oil, says M. Chatillon (*Gaz. Hebdom.*). He recommends: ℞. Chlorali, part. vj.; ol. amygdal., part. xxx. M. Or ℞. Chlorali, part. vj.; ceræ, part. iij.; adipis, part. xxvij. M. And ℞. Chlorali, part. j.; ceræ alb., part. ij.; ol. theobrom., part. ijss. M. Ft. suppositoria.

NEW YORK ACADEMY OF MEDICINE.—The credit should be given to a *member of the medical profession* and not simply to a private citizen, for the donation of $5,000, noticed in the last number of the RECORD (see p. 136).

IN the case reported by Dr. Barker (see p. 140) the sentence, "The woman became pregnant and went to the full term of utero-gestation twice," should be omitted.

Obituary.

JACOB BIGELOW, M.D., LL.D.

JACOB BIGELOW, M.D., LL.D., distinguished as a practitioner, teacher, and writer since the commencement of this century, died in Boston, Mass., on January 10th, at the age of 91 years. He was born in Sudbury, Mass., in 1787, was graduated at Harvard University in 1806, and commenced practice in Boston in 1810. He early became known as a skilful botanist, having an extensive correspondence with botanists in Europe, and several plants were named for him by Sir J. E. Smith in England, by Schrader in Germany, and in France by De Candolle. In 1814 he published "Florula Bostoniensis," to this day the most complete work of its kind, and a standard authority. In 1815 he published "American Medical Botany," in three volumes, octavo, illustrated by colored plates, after nature—one of the most beautiful productions of the American press. At this period he occupied the chair of Materia Medica in Harvard Medical College, and also that of Clinical Medicine; was an active practitioner in Boston for forty years, enjoying a large and lucrative practice; also for a long period physician to the Massachusetts General Hospital. From 1816 to 1827 he delivered lectures "On Application of Science to the Useful Arts," which resulted in the establishment of the "Institute of Technology."

In 1820 he was one of the "Committee of Five" selected to form the American Pharmacopœia; and the nomenclature of the Materia Medica (afterwards adopted by the British College), substituting (when practicable) a single for a double word, is due, in principle, to him. He also published numerous medical essays and discourses, some of which are to be found in a volume entitled "Nature in Disease." One of these, "Discourse on Self-Limited Diseases," has had great influence in modifying the practice of physicians since that time in regard to the treatment of *acute* diseases. His conservative mind exercised a healthy restraint in accepting, with caution, new theories on the action of drugs.

In 1854 he was elected Corresponding Fellow of the New York Academy of Medicine. Dr. Bigelow was the founder of Mount Auburn Cemetery, the first of its kind in the United States, and model of all other cemeteries which have followed. The stone tower, chapel, gates, and fence were designed by him. The colossal Sphinx, in granite, was his final gift, and will forever remain a suitable monument to his public spirited labors.

For many years he was President of the Massachusetts Medical Society, and of the American Society of Arts and Sciences. In 1856 the trustees of the Massachusetts General Hospital placed his bust, in marble, in their hall, in commemoration of his long-continued services.

In the last years of a life protracted long after the period allotted by the Psalmist, his failing strength prevented exercise, and his loss of sight rendered him helpless, but his mental faculties retained a portion of their early vigor until within a short period prior to his decease.

He was the oldest member of the Massachusetts Medical Society, and one of a group of prominent men whose lives are intimately connected with the early history of medicine in our country. The names of Nathan Smith, John C. Warren, James Jackson, and Jacob Bigelow, will long live in the annals of

our profession. The name of Bigelow is worthily perpetuated in his son, Henry J. Bigelow, M.D., surgeon to the Massachusetts General Hospital, etc. Dr. Bigelow was a most laborious worker, a skilful physician, a public-spirited and estimable citizen. He regarded the calling of the physician as a sacred vocation and the "noblest of all arts." He did not pursue it as a trade, for self-aggrandizement and wealth, but for the relief of suffering humanity. He was a man of refined taste, and the sketches illustrating his beautiful botanical works were from his own designs. As a lecturer he was fluent, his powers of illustration clear. To his juniors he was ever kind, and, to the last, modest, ingenuous, and benevolent. His character is one which it is a pride to record, a pleasure to recall, a profit to imitate. Well saith Rome's greatest orator, "Brief is the time, short is the space allotted to man upon earth; but the memory of a life nobly rendered is immortal." J. G. A.

BOOKS RECEIVED.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN, with a Formulary. By EDWARD ELLIS, M.D., late Senior Physician to the Victoria Hospital for Sick Children, etc. Third Edition. New York: W. Wood & Co. 1879. 8vo, pp. 313. Wood's Medical Library of Standard Authors. No II.

SECTION CUTTING: a Practical Guide to the Preparation and Mounting of Section, for the Microscope, etc. By SYLVESTER MARSH. Philadelphia: Lindsay & Blakiston. 1879.

THE INFLUENCE OF POSTURE ON WOMEN IN GNECIC AND OBSTETRIC PRACTICE. By J. H. AVELING, M.D., Physician to the Chelsea Hospital for Women. Philadelphia: Lindsay & Blakiston. 1879.

ON THE TREATMENT OF PULMONARY CONSUMPTION by Hygiene, Climate, and Medicine. By JAMES HENRY BENNET, M.D., Member of Royal College of Physicians, London, etc. Third Edition. Philadelphia: Lindsay & Blakiston 1879.

NAVAL HYGIENE. Human Health, and the Means of Preventing Disease, etc. By JOSEPH WILSON, Medical Director, U. S. Navy. Second Edition. With Color-lithographs. Philadelphia: Lindsay & Blakiston. 1879.

DIPHTHERIA: its Nature and Treatment, Varieties and Local Expressions. By MORELL MACKENZIE, M.D., London. Philadelphia: Lindsay & Blakiston. 1879.

DIPHTHERIA: its Nature, Causes, Prevention and Treatment. Good Health Publishing Co.: Battle Creek, Mich. 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 8, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 1, 1879.	0	9	195	2	4	69	0	0
Feb. 8, 1879.	0	6	198	1	1	61	0	0

THE AMERICAN JOURNAL OF OTOLOGY.—We have received the first number of this new journal, published by Messrs. William Wood & Co. It is edited by Clarence J. Blake, M.D., of Boston, in conjunction with Prof. A. M. Mayer, of Hoboken; Drs. Albert H. Buck and Samuel Sexton, of this city; Dr. C. H. Burnett, of Philadelphia; Dr. J. Orne Green, of Boston; and Dr. H. N. Spencer, of St. Louis. This new venture will be devoted to the interests of physiological acoustics and aural surgery. In the introductory note the editor alludes to the remarkable increase which the past ten years have seen in the interest in the study of the laws which govern the production and propagation of sonorous vibrations, and correspondingly in the study of the structure, functions, and diseases of the complicated apparatus which enables us to appreciate that mode of motion to which we give the name of sound. This interest, which has received a new impetus by the inventions of the telephone and phonograph, suggests to the aural surgeon the necessity of over-stepping what has usually been considered the boundary of his professional province, by turning his attention to investigations in physics as the ground-work of his physiological and pathological studies, in order that he may be the better qualified to make that practical application of the knowledge to be so acquired in the conservative treatment of the various diseases of the human ear.

The number also contains the following original papers: "Twenty Cases of the Growth of Aspergillus in the Living Human Ear," by C. H. Burnett, M.D. (a continued paper of considerable practical importance and interest); "Syphilitic Affections of the Ear," by Albert H. Buck, M.D. (with a report of 21 cases); "The Use of Calcium Sulphide in the Treatment of Inflammation of the External Auditory Meatus," by Samuel Sexton, M.D., a capital and practical article. Then follow "Book Notices" (11 pages), and abstracts of papers (25 pages). If future numbers preserve the present standard of excellence, the success of the journal is assured. Being royal octavo, and printed in large clear type on heavy paper, each year's numbers will form a beautiful volume.

SLIPPERY-ELM BARK IN TAPE-WORM.—Eat large quantities of slippery-elm bark for several days, and follow with a castor-oil and turpentine emulsion. The entire worm, head and all, will be passed enveloped in the undigested slippery-elm bark, which seems to entangle the worm so as to cause it to lose its hold upon the intestines.

DIAGNOSIS OF ALCOHOLIC COMA.—Dr. Macewen, of the Royal Glasgow Academy, lays down the rule that an insensible person who, being left undisturbed for from ten to thirty minutes, has contracted pupils, *which dilate when the person is shaken*, without any return of consciousness and then *contract again*, is suffering from *alcoholic coma*.

UNGUENTUM VASELINI PLUMBICUM.—Highly recommended by Prof. Kaposi, of Vienna, as a substitute for the *diachylon ointment* of Hebra, is prepared by heating equal parts of *emplast. diachyl. simp.* and vaseline together.

OUR esteemed contemporary, the London *Lancet*, gives (Nov. 30th) its readers a fine woodcut of a profile view of the bust of Harvey, which exists in the Harvey chapel, Hempstead, England. This profile view was drawn by the eminent Mr. Woolner, for Dr. B. W. Richardson, of London, and, it is claimed, gives the best representation of the face of the great anatomist extant.

DR. LOMBE ATTHILL, Master of the Rotunda Lying-in Hospital, has been elected an honorary member of the Gynæcological Society of Boston.

Original Communications.

EVOLUTION AND HUMAN ANATOMY.

By STANFORD E. CHAILLÉ, A.M., M.D.,

PROF. PHYSIOLOGY AND PATH. ANAT., MED. DEPT. UNIV. LA

"In the place of miracle, natural science has substituted law

THE "Descent of Man" closes with the once startling assertion, that "man still bears in his bodily frame the indelible stamp of his lowly origin." If this be true, then man's conception of an ever-loving and all-merciful God would be based on a benevolent reality, rather than on a malevolent fiction; since man would belong to a risen, not to a fallen race, and should exchange a discouraging belief in his degradation from a perfect parent for an encouraging faith in his own progressive development.

No one familiar with the history of the warfare between science and religion will be deterred from investigating the proofs of Darwin's assertion, though it is denounced by biblists as "evidently contrary to Scripture;" for, such denunciations recall the history of many similar contests, of which three, at least, cannot, for the good of mankind, be too often repeated.

The rotundity of the earth was denounced for centuries "as contrary to Scripture," * and the believers thereof were cursed and punished as "heretics, infidels, and atheists"—until Magelhaens, sailing ever in one direction, returned in 1519 to his point of departure.

The Copernican doctrine—that the planet of vainglorious man was not the centre of the universe, but that the sun was the centre of our system, and that the earth moved around this centre, not the sun around the earth—was declared, in 1616, by the Cardinals of the Roman Inquisition, to be "absurd, heretical, and contrary to Holy Scripture." The great book, which, in 1543, first taught this now familiar truth, was condemned to remain on the Roman "Index Librorum Prohibitorum" from 1616 to 1820. For advocating this truth, Bruno was burned, Campanello tortured, Galileo terrified into perjury; and Luther and Melancthon joined hands with the Pope, uniting Protestantism to Catholicism in upholding as scriptural † the woful ancestral errors, to the overthrow of which Copernicus and Galileo owe their undying fame.

For centuries the creation of "the heavens and the earth" within six days ‡ was an article of religious faith requisite to man's salvation. Even in 1850 the great Christian scientist, Agassiz, deemed it necessary in his geological lectures at Harvard, to explain and apologize to an audience of college-boys, for teaching that the works of the Creator buried in the bowels of the earth testified irrefutably that it could not have been made within six days; and to defend himself against the maledictions hurled against him by that pulpit and press, which accepting at last the lesson once fiercely denounced, now uses his great, but at one time execrated name, to wage an equally hopeless battle against the doctrine of evolution. The only doctrine which explains to the biologist the Creator's mode of action in accord with such well-known facts as that useful animals are burdened with useless organs, and harassed by other animals, useless and noxious; that organs and organisms are modified by, and are adapted to the varying conditions of existence; that use causes development, disuse the atrophy of organs, and thus new organisms may appear, while old ones may disappear; and that nature's work is done through laws simple, uniform, and constant.

It would be presumed, that the marks of man's lowly origin, stamped indelibly upon his bodily frame, should be familiar to, at least, physicians, since they are forced to study human anatomy. But, in truth, few physicians, even though skilful anatomists, are well informed on this subject, for the reasons, that they pursue anatomy for practical purposes, not for philosophical deductions; that they study superficially, if at all comparative anatomy, on which depends the significance, so far as evolution is concerned, of human anatomy; and that the indelible marks of man's lowly origin are to be found chiefly in three directions, of little importance to, and, therefore, little studied by the medical anatomist. These three directions are: the anatomy of the human being while within the womb—embryology; the anatomy of bodies deviating from the common rule—anomalies; and the anatomy of certain parts—rudimentary organs—imperfect in and useless to man, but perfect in and useful to lower animals. In these three neglected departments of anatomy will be found in abundance the indelible marks of man's lowly origin. Some of these will now be presented under the headings: Embryology, Anomalies, and Rudimentary Organs; however, every example presented will not be strictly confined to its appropriate heading, because the three subjects are so related that often an example of one is strengthened when united to an example of the other. This close relationship is so marked between embryology and anomalies, that the classification of monstrosities, which are simply gross and hideous anomalies, is based upon embryology.

EMBRYOLOGY.

If the different stages of man's development within the womb be not a synopsis or recapitulation of his genealogy during the enormous duration of terrestrial life—then these progressive stages are not only inexplicable, but also are so deceptive as to suggest the same explanation, once current as to fossils—that they were "delusions of the devil."

Man, "in action, how like an angel! in apprehension how like a God! . . . the paragon of animals," originates, not, as our ancestors taught, from a homunculus or diminutive baby, but from a little ovule or cell, as does a fish, frog, snake, bird, and dog; it is about $\frac{1}{120}$ inch in diameter, and apparently differs in no respect from the ovules of other mammals. In the hatching of this microscopic egg it successively presents in striking particulars the same forms of animal life disclosed in the successive strata of geology, and taught in our school-books as the five progressive steps from the lowest to the highest vertebrates; for, the human embryo, at first invertebrate, subsequently assumes, in many things, the organization of a fish, an amphibian, a reptile, and a mammal, while becoming man like and yet has never ceased to be a human being. At the third week of hatching, this future man is a gelatinous worm-like body, and even at the eighth week can scarcely be distinguished from the embryo of a dog. Among the details of this gradual development, the following deserve attention; but, to appreciate them, a comprehension of some facts in the development of lower animals is indispensable:

An egg, to grow, must, like every living thing,

* See [illegible] Ps. lxxxv. 17 [illegible] Jer. li. 16; Rev. [illegible]

† See Josh. x. 12, 13, 14. Matt. xi. 11 [illegible] Ps. [illegible] 8; Ec. i. 5; Hab. iii. 11.

‡ See Gen. i. 31; v. 1, 2

have air, water, and food for nutriment. How are these supplied? In all vertebrates, blood-vessels, always the conveyers of nutriment, sprout from the microscopic embryo within the yolk or vitellus, and, extending over its surface, form a "vascular area," which conveys to the embryo all such nutriment as the water or air outside of this area may bring in contact with it, and also the nutritious yolk inside of this area: as the embryo thus consumes the yolk, this constantly diminishes, so that the vascular area gradually becomes a sac, which is called the "umbilical vesicle." The blood-vessels constituting first the vascular area, then becoming the vessels of the umbilical vesicle, form what is called the vitelline circulation, which, though the primary circulation of every vertebrate, is transient, disappearing by atrophy as soon as the yolk has been consumed, and other organs have been developed to supply the ever indispensable air, water, and food. This vitelline circulation supplies with nutriment the embryo of a fish, and of its brother frog, until converted into a minnow or a tadpole, when the sufficiently developed alimentary canal, and gills or branchiæ provide the requisites for additional growth.

The egg of a bird and of a reptile is at first nourished by the same vitelline circulation which suffices to convert an embryonic into a perfect fish; but, long before the hen's egg becomes a chicken, this primary circulation begins, inexplicably to the special creationist, to disappear, while two new organs are developed—the amnion, with the more important allantois, which supply the embryonic bird and snake with a *secondary* circulation, in place of the disappearing *primary* one of the fish and frog. Thus, the hen's egg is provided with air and food until it becomes a chicken, when alimentary canal and lungs (not gills) discharge permanently outside the egg the functions discharged transiently within the egg, first by the vitelline, and second by the allantoidal circulation.

How grows the mammal's egg? As grows the egg of a woman. The human embryo is, by the "afterbirth" or placenta—which is formed in large part by transformation of the allantois, first into the chorion, then into the placenta—grafted upon the mother's womb, and derives its nutriment from the blood of the mother. But, it must always remain an inscrutable mystery to the special creationist, that the Omnipotent delays thus to graft the embryo upon the mother until about the fourth month, and insists on forcing the human and every mammalian egg to secure its nourishment: first, through the fishy and amphibious vitelline circulation, which, quickly disappearing, is replaced by the allantoidal circulation of the reptile and bird—which second circulation also quickly disappears to be replaced by, third, the placental circulation. Now, let it be observed, that, on the one hand, the vitelline circulation of the fish is bathed in water, thence obtaining air in abundance, and that the allantoidal circulation of the snake is in contact with the delicate porous egg-shell, through which air is readily absorbed; while, on the other hand, these two circulations in the human embryo are in contact, not with water nor with the external air, but with only one air-providing menstruum—the fluids secreted by the mother's womb—fluids which provide air, as also food, much less perfectly than is subsequently done by the blood of the placenta. Why then should the human embryo be furnished *temporarily* with the embryonic organs, first of a fish and amphibian, and then of a reptile and bird, prior to the development of the mammalian placenta—unless these organs, less perfect and more transient than the placenta, be indelible marks of man's hereditary descent? The student of vital phenomena cannot ignore the important purport of "the appendages of the embryo" and of the elementary facts now stated—facts, which become of convincing significance when associated with those now to be presented.

The vitelline circulation is, by no means, the only indelible mark of man's piscine ancestry. Not until the sixth week does that *gill-apparatus* disappear, which, permanent in fishes, is transient in the embryos of reptiles, birds, and mammals. The human embryo has on each side of the neck, as has an adult fish, "branchial arteries" (five), distributed to cartilaginous "branchial arches" (four), which have between them "branchial fissures" opening into the pharynx. From the "branchial arteries" of most fishes are developed, for aquatic respiration, numerous vascular "gill-fringes" by which the air, dissolved in the water pouring through the "branchial "fissures," is absorbed. But "gill-fringes" are useless to animals which do not breathe in water, and since disuse of these fringes should cause their atrophy in a human embryo, just as it *does* in a tadpole, it is in perfect accord with nature's laws that these gill-fringes are not present in the human embryo; even in some fishes they are dispensed with. In farther evidence that the embryonic branchial apparatus is perfectly homologous with the permanent gills of fishes it is found that, as the arterial system of the fish is formed from its branchial vessels, so the arterial system of the human embryo is formed from its branchial arteries—all of which gradually disappear by a conjoint process of atrophy, and of transformation into man's permanent arteries. Man's embryonic "branchial fissures," through which, in fishes, the air-supplying water passes off, also undergo transformation; however, as an anomaly, "original branchial fissures may persist in the neck, even in adults." *

Man's lungs are first developed as two little sacs, which, prior to the development of the trachea or windpipe, open temporarily, as the air-sacs of fishes permanently do, into the upper part of the alimentary canal—usually into the pharynx.

Man's embryonic heart is at first a simple tubular pulsating sac, like that of the lowest vertebrate—that exceptional and wonderful, heartless, and brainless fish, the lancelot or amphioxus. This single sac is soon divided by a septum into two sacs, and thus man has temporarily the two-chambered permanent heart of fishes. This piscine heart soon becomes a three-chambered reptilian heart, distributing, like it, impure venous mixed with pure arterial blood.† This snake-like heart does not become the perfect heart of the bird, mammal, and man, with its four completely separated cavities, until several days after birth; and, as an anomaly, the three-chambered heart may persist in man, causing the well-known "blue disease." As another peculiarity of the vascular system, man has but one great vein—the superior vena cava—to return the blood from the upper part of his body to the right auricle of the heart; but in his early embryonic condition, "*two* superior venæ cavæ open independently into the auricle. This condition remains permanent in birds, and in some of the lower mammalia, which possess both a right and a left vena cava superior, opening separately into the right auricle. Instances are occasionally met with, from

* Page 953. Vol. IV., Cyclop. Anat. and Phys.

† The reptilian heart has only one ventricular, and two auricular cavities; while the human embryonic heart has only one auricular, but two ventricular cavities.

arrest of development, of two such veins in the human body." *

The "Wolffian bodies" are the permanent kidneys of the fish, and of his immediate descendant, the frog; but, they constitute only the "false" or "primordial kidneys" of higher animals. The human embryo possesses them until about the third month, when they disappear by atrophy, giving place to the permanent true kidneys. These are in man smooth and unlobulated, but are lobulated in lower animals—so they are in the human embryo, and, as a frequent anomaly, this lobulation may persist in the adult man.

Fishes, amphibians, reptiles, and birds, are *cloacal*, that is, have one common fecal and uro-genital outlet; so, the human embryo is cloacal to the twelfth week of its existence. The urachus, a relict of the allantois and of this cloaca, running from the bladder to the navel, is in some animals a pervious duct. "It has been found (says Wilson's Anatomy), pervious in the human fœtus, † and the urine has been known to thus pass through the umbilicus."

The "descent of the testicle" from the abdomen of the fœtus is by a pouch continuous with the peritoneal sac of the abdomen. This continuity, permanent in many lower animals, as in the rabbit, is habitually temporary in man; but may as an anomaly, persist, and thus cause the well-known "congenital inguinal hernia." Farther, this "descent of the testicle" is guided by a muscular cord, the gubernaculum testis, which at birth has lost its muscular character, and become (teaches Dalton's Physiology), "merely the anatomical vestige or analogue of a corresponding muscle in certain of the lower animals, where it has really an important function to perform" throughout adult existence.

The early embryonic womb appears bifid, and internally "presents a strongly marked triangular form, the vestige of its original division;" and, as anomalies, women may have not only "two-horned," but even "double wombs." Now, in apes, the womb is slightly notched, and, therefore, more distinctly bifid than in women; in cetacea, solipeds, and ruminants, it is distinctly "two-horned;" and marsupials, as well as some rodents have a "double-womb." ‡

The placenta is formed in part by the mother, and in part by her offspring—in women these two parts are eventually soldered inseparably together; but in the earlier stages of development these parts are separable, as is always the case in the cow and other animals. The fœtal part of the placenta is formed by numerous vascular tufts of the chorion—called cotyledons, which in woman are soldered together into the smooth, single "discoid placenta;" but in ruminants the cotyledons continue separate, and they have habitually a "cotyledonous placenta:" as an anomaly, a woman may have a cotyledonous, instead of the usual discoid placenta.§ The human fœtus is born linked to the placenta by the umbilical cord, which contains two umbilical arteries, and only one umbilical vein; but in the earlier stages of development there are two umbilical veins—which, always present in some lower animals, as (Topinard) in Cebian monkeys, may, as an anomally, persist in the human fœtus.

Man's nervous system originates in a cord having one anterior bulbous enlargement, as is the permanent form of the cerebro-spinal axis of the amphioxus. This single bulb, first separating into the "three cerebral vesicles," subsequently develops man's complicated brain. Thus, as in the successive classes of vertebrates, so in the successive phases of the human embryo's life are found developed all stages of the nervous system, from the simplicity of the amphioxus to the complexity of the highest mammal. Man's brain possesses no parts not present in the brains of the highest apes; * it differs from theirs, not in quality, but in quantity—in the greater complexity of the convolutions, in the lack of symmetry between the two sides, and in the greater size. But, our convolutions do not begin to be developed until the fifth month—even at the seventh month of fœtal life, man's brain is as unconvoluted, and as symmetrical as is the adult baboon's; and, as anomalies, human beings may be born as destitute of brain as is the amphioxus—and the brains of congenital adult idiots, seldom weighing more than twenty-three, may not exceed even eight and one-half ounces—while the average weight of the gorilla's brain is about seventeen ounces.

Man's bony system passes through a cartilaginous stage, which, temporary in him, is permanent in some fishes; and our bones present other indelible marks of our lowly origin, besides those which follow.

The single adult frontal bone (forehead) consists in lower animals of two separate pieces; such is its condition in the human embryo, and these two frontal bones are not united until the first year after birth,—as an anomaly, this union may never take place.

In some apes and other mammals the malar, or cheek-bone, is permanently divided in two portions; and this sometimes occurs in the human embryo.

Lower animals have a distinct inter-maxillary bone for the incisor-teeth of the upper jaw; so to the fourth month has the human embryo. The final union of the inter-maxillary with the superior maxillary bones is marked by a fissure for some three years after birth, and, by arrest of development, may never take place—thus causing, as an anomaly, the well known deformity—hare-lip.

In the human embryo, "at one time, the two nasal passages or fossæ are closed at the bottom, a condition which is permanent in fishes; afterwards they communicate, in front of the palate, with the mouth, as in certain amphibia; finally, they open only into the pharynx, as in reptiles, birds, and mammals." †

In the human embryo the great toe is shorter than the others, and farther from them,—even projecting at a right angle,—as is its permanent condition in the quadrumana.

To the eighth week the coccygeal or tail-bones of the embryo-man project beyond the rudimentary legs, and as far beyond as in the embryo-dog. This veritable tail, though usually aborted, may, as an anomaly, persist, as shown by Mr. Owen, who, April 25th, 1878, related to the Harveian Society of London "a case of a fœtus he saw, which had a tail that was *curled up on one buttock* and *distinctly moved*. It was successfully removed by ligature, and was now in the museum of Guy's Hospital. The child lived to sixteen years of age." ‡ That the coccyx is an indelible mark of a true ancestral tail, is further indicated by the presence, even in the adult, of muscles which for-

* Marshall's Physiology, Am. Ed., p. 977.

† The human being is termed embryo, [illegible] of the intra-uterine fourth month, and from [illegible] fœtus.

‡ Marshall's Physiology, Am. Ed., p. 974.

§ Cazeaux: Midwifery, Am. Ed., p. 195.

* The highest apes, [illegible] gorilla, gibbon, chimpanzee, and [illegible].

† Marshall's Physiology, Am. Ed., p. 965.

‡ Br. Med. Journ., Mar. 13, 1878, p. 351.

merly moved it, but which, by long disuse, have atrophied and become rudimentary."*

Finally, the poetical seven stages of man's life outside the womb are even surpassed by those within it, as numbered by embryologists. The most striking of these embryonic stages are, the Ascidian, the Amphioxian, the Piscine, the Reptilian, the Mammalian, the Quadrumanous, and the Human. What theory, other than evolution, offers even an attempt to rationally explain the significance of these stages, and of the facts now presented?

ANOMALIES.

Anomalies are deviations from the habitual construction of the body; the grossest are termed monstrosities, others constitute deformities, while the greatest number are simple deviations without being, in any wise, malformations. Most anomalies represent anatomical structures habitually found in lower forms of life, hence constitute what evolutionists term—*reversions*. Examples of monstrous, then of ordinary anomalies, will now be given.

A monster † is not, as until recent times was taught, an instance of "divine vengeance," nor a "work of the devil," nor a result of bestial intercourse, nor a lusus naturæ, nor the product of a creative force of special kind; but is due sometimes to excessive, sometimes to perverted, or, far more frequently, to defective embryonic development. Since the transient forms of the human embryo are, for the most part, repetitions of the persistent forms of lower animals, it is not singular that malformations due to arrested development should present a brute-appearance; nor is it singular that our ancestors, ignorant of embryology, should long have erroneously ascribed beast-like monsters to bestial intercourse, and that this error should still find credence among the ignorant.

The human embryo is, in its earliest stages, as destitute of head, brain, heart, and extremities, as are the permanent forms of many lower animals; hence, from arrest of development, a human monster may be born as headless as a worm, as brainless, and heartless as the amphioxus, and as limbless as a snake. Every variety and degree of deficiency in these and other parts, from complete absence to perfect development, may occur. Not only may development be arrested prior to the separation of the head from the trunk, thus producing a headless monster, but there may be a partial arrest producing a brutish, frog-like deficiency of neck; not only may the four extremities be all wanting, as in the worm and snake, but the hands or feet may, turtle-like, be attached to the shoulders or pelvis, and the two lower extremities may coalesce into one, as in fishes. Man's embryonic eyes are at first located on as diametrically opposite sides of the head as are the eyes of fishes, or of rodents; hence, by defect of development, may result human monsters, thus hideously deformed.

Before citing other examples of anomalies it is well to recall, that in addition to the above monstrosities, some fourteen instances of ordinary anomalies have already been presented in connection with embryology. To this list of reversions may be added the following indelible marks of man's lowly origin:

The vast majority of flowering plants, and also many inferior animals (as tape-worms, slugs, snails, etc.), are "double-sexed," and it is now generally conceded that *true* hermaphrodism is, in man, "not only possible, but probable."

Many lower animals have a "penial bone," and as a relic of this "a prismatic cartilaginous body has been occasionally found in the centre of the glans" penis of man.*

Instead of having one nipple to each breast, or mamma, a woman may have, like some lower mammals, additional supplementary nipples; and her mammæ may, like the Monotreme's, be destitute of nipples. A woman may have, instead of the usual two pectoral mammæ, supplementary mammæ sufficient to furnish her with five breasts; she may have on the belly, the abdominal mammæ of Marsupials, or in the groin, the inguinal mammæ of Ruminants. She may have, like the Lemur, the lowest animal of man's order, the primates, two pectoral, and two inguinal mammæ. Among all mammals a marked relation exists between the number of mammæ and of young at one birth; and it is found that a woman may have occasionally, as some lower animals have habitually, two and even five living young at a birth.†

Man has occasionally a supplementary spleen, which is constant in the sturgeon, dolphin, narwahl, and doubtless in other animals.‡

Many birds have a "vitelline cæcum," that is, a pouch-like process, or a "short, narrow, blind diverticulum, connected with the small intestine;" "a similar diverticulum is occasionally found in mammalia, and even in man."§ Man may be web-fingered and as web-toed as a duck, and he may have two toes occasionally webbed, as they constantly are in the gibbon.

In man there is occasionally a simian conformation of the cartilage of the ear ("square above, rounded off, and without a lobule"); he may be born as destitute of external ear as a fish, frog, or snake, and as eyeless as a fish from the Mammoth Cave.

Like Esau, and many more recent instances, man may be as hairy as are most of his mammalian ancestors; and, he may have, instead of ordinary nails, as solid claws on fingers and toes as have the Carnivora.‖

Anomalies of the bones are numerous. There may be complete fusion of the two parietal bones into one, as in rodents; and there may be, as in some lower animals, an interparietal bone. In the white race the two bones proper of the nose remain separate to an advanced age, as is not the case in other animals; but their fusion may occur early, especially in the inferior races of man, as for instance in Hottentots about the twentieth year; while in the chimpanzee and gorilla it occurs about the second year.¶ The spinous processes of man's 3d, 4th, 5th, and 6th cervical vertebræ are habitually bifid, but they are, especially in the inferior races, sometimes simple, as they constantly are in lower animals; however, the chimpanzee has two of these processes bifid, thus pre-

* Gray's Human Anatomy, Am. Ed., p. 228, says, "the extensor coccygis is a slender muscular fasciculus, occasionally present. . . . . it is a rudiment of the extensor muscle of the caudal vertebræ present in some animals."

† Human monsters are reported by some to occur as often as once in every 1,600, and by others once in every 3,000 deliveries. Fortunately many die early.

* Huxley's Vertebrates, p. 417.

† Churchill reports that in 48,988 deliveries, twins occurred once in 78, and triplets once in every 5,831 cases.

To correct frequent misapprehensions of two sexual questions, it may be here added, that Flint's Physiology, p. 875, teaches that monkeys, as well as women, have a monthly catamenial discharge: and Topinard's Anthropology, p. 150, teaches that the gorilla and chimpanzee are monogamous.

‡ Mivart's Element. Anat., p. 484.

§ Marshall's Physiology, Eng. Ed., p. 187, v. 2: and p. 622, Wilson's Anatomy.

‖ In 1864 one such case was seen by the writer, at Macon, Ga., in a Confederate conscript, who stated that his long, round, solid claws were inherited, and had been transmitted to one of his children.

¶ Topinard's Anthropology, p. 127.

senting in this particular a *transition* form. Man has occasionally—instead of his habitual twelve dorsal and five lumbar vertebræ—the thirteen dorsal and four lumbar vertebræ of the gorilla and chimpanzee; or the twelve dorsal and four lumbar vertebræ of the orang. Instead of twelve, man may have the thirteenth rib, out of which Eve was conjecturally made, and which some lower animals habitually possess.

Many animals have—to protect the principal artery and nerve of the humerus from compression—a "supra condyloid foramen," which is occasionally found in man, it is said, once in every hundred cases; still more frequently is found a small hook-shaped process, as a rudiment of this foramen.*

In some fishes and crocodiles, says Mivart, several successive series of new teeth appear to replace old ones; so, occasionally in man, there may occur a third, and perhaps even a greater number of series of new teeth.

Occasionally in the superior, frequently in the inferior races, man's lowly origin is stamped upon him by the projecting upper incisors of the anthropoid, by his prognathous under-jaw, and by his monkey like "facial angle."

A man has more than five hundred separate muscles; variations in number and attachment are frequent, particularly in negroes; and these variations or anomalies constantly illustrate reversions to lower animals, and especially to the anthropoids. Topinard asserts that the sternal muscle of mammals is present in 18 of 600 men; that the ischio-pubic muscle, constant in the majority of male animals, is present in 19 of 40 men; that the levator claviculæ of most apes is present in 1 of every 60 men; that in one man, seven muscular peculiarities of certain apes have been found; and that a marked muscular peculiarity of anthropoids and monkeys, as distinguished from men, is the habitual presence in the former and absence in the latter of an accessory fasciculus of the latissimus dorsi, but that this fasciculus has been "observed in a rudimentary state in some negroes." †

Huxley teaches,‡ that man has usually only two muscles,§ which the anthropoids do not have, but that the one is sometimes, and the other is frequently wanting in man; that the anthropoids have usually only four muscles,‖ which man does not have, but that all these are sometimes absent in anthropoids, and present in man; and, in fine, that "all the apparently distinctive peculiarities of the myology of the anthropomorpha are to be met with occasionally, as varieties in man."

RUDIMENTARY ORGANS.

Rudimentary organs found in all kinds of plants and animals, are the perfectly useless, and at times, even detrimental relics of useful organs in lower forms of allied plants and animals. The presence of such relics in the adult, and their better development in the embryo, are among the most convincing evidences of evolution; while to him who believes that all things were specially created for some special and useful purpose, these relics must continue to always be "inscrutable mysteries." How is it possible to explain, except by the *derivative* creation of evolution, such facts as follow?

The canine and upper incisor-teeth of ruminants exist in a rudimentary state, but are invisible, because they never rise above the gum; so also, the fœtal whale has teeth which are never cut. Many insects have wings; lying under wing-cases which are firmly soldered together. Even entire limbs may be rudimentary—certain snakes having hind-legs hidden beneath the integument.* There often reappear the stump of a tail in tailless breeds, minute dangling horns in hornless breeds of cattle, the vestige of an ear in earless breeds, and the rudiments of eyes in eyeless animals.

The rudimentary organs of man, if neither so surprising nor so numerous as in lower animals, are as significant. To the several examples heretofore presented will be added the following:

The porpoise, the hedgehog, horse, and other brutes, have a highly developed group of skin-muscles, termed the panniculus carnosus—which is rudimentary in man, being represented only in part; for instance, by the platysma myoides in the neck, by the occipito-frontalis over the skull, and by occasional traces in the arm-pits, and other localities. The fibres of the rectus muscle of the abdomen are interrupted at intervals by from two to five transverse tendinous intersections—termed lineæ tranversæ, which are the vestiges of ribs in some mammals, and especially in reptiles.† Although few men can move the external ear, and even these imperfectly, yet all men have three rudimentary ear-muscles,‡ which are the analogues of large and important muscles in some of the mammalia. A small projection, sometimes found on the superior border of the helix of man's ear, is believed by Darwin to be the vestige of an ancestral *pointed* ear.

Man, and all male quadrupeds have rudimentary mammæ, which, considered in connection with "double-sexed" anomalies, have, no doubt, a deep significance. Man has, over the whole body, rudimentary hairs, which are supposed to be vestiges of a uniformly hairy coat. Man has a small laryngeal sac, the ventricle of the larynx, which is believed to be the rudiment of a very large cavity in anthropoids, and in other animals. The white man's third molars, or wisdom teeth, are sometimes never cut, are especially prone to decay, have only one root instead of two or three, and are smaller than the first and second molars; since this is not the case in lower animals, nor in apes, nor in the inferior races of man, it is believed that the European's wisdom-teeth are *tending to become* rudimentary.

In mammals generally, and in lower vertebrates, there is present in each eye a "nictitating membrane," or "third eyelid," which often, if not always, springs from the inner and nasal side of the eyeball; in the same part of man's eyes is constantly found, as a rudiment of this third eyelid, the semilunar fold, or "plica semilunaris."§

One of the best known, and most remarkable of the rudimentary organs of man, is that worm-like ap-

---

*Gray's Anatomy, Am. Ed., p. 134.

†Huxley's Anatomy of Vertebrates, p. 94. Humphry, Osteology, p. 272, says that an accessory [illegible] of every 13 men.

‡Huxley's Vertebrates, pp. 108, 417.

§[illegible]

pendage to the cæcum, or head of the large intestine, called the appendix vermiformis cæci. The highest apes, and, it is said, the marsupial wombat, are the only animals which share with man the honor of possessing this curious and useless organ—which serves no purpose, thus far conceived by human ingenuity, except either to occasionally cause death, as by impaction of a cherry-stone, or to present a very indelible mark of man's lowly origin. To properly estimate this cæcal appendage, a few facts in comparative anatomy must be understood.

The cæcum is a pouch-like elongation of the large intestine at its junction with the small intestine. The ant-eater and armadillo have, as birds generally have, two such blind elongations, or a "double cæcum;" the manatee has a bifurcated cæcum; but mammals, as a rule,* have only one cæcum, which always large, may be of enormous size, as in the hare, the indris, the marsupial koala, the horse, and in ruminants. The cæcum of the koala is three times the length of its body, while that of the horse is longer than three feet, and holds more than seven gallons. Farther, lemurs have a peculiar cæcum, in that, it is "drawn out into an elongated conical termination;" and some, if not all, carnivora, have a "spirally twisted" cæcum. †

These facts seem to throw light on the gradual transformation of the large mammalian cæcum into man's insignificant organ,‡ which has attached thereto a small, elongated, worm-like, conical, and spirally twisted appendix. Can any doubt remain that this appendix is the vestige of the long and large cæcum possessed by man's mammalian ancestors? If so, the doubter is required to explain why it is that in his own, as in every man's early embryonic development—*his* cæcal appendage was, at first, long, of large size, and as wide as the cæcum itself, so wide that the small intestine seemed to be inserted into the side of the large intestine, leaving a large pouch-like free end, which, becoming by degrees conical, was gradually constricted and twisted into the adult's familiar, small, and worm-like appendix? Such doubters have no refuge from the scylla of "*derivative creation*," except in the charybdis of "*inscrutable mystery*."

Comparative anatomy has already acquired sufficient knowledge to increase the long list, now given, of the indelible marks of man's lowly origin. As the future perfects this knowledge, not only will there be many important additions, but a brighter light will be thrown on the facts herein presented. However instructive such detailed facts may be, yet, only a fraction of the evidence in favor of evolution depends on human anatomy; and the general facts are as decisive as are details to him thoroughly imbued with a conviction of the simplicity, uniformity, and constancy of nature's laws. For chemistry teaches that man's chemical, microscopy that his histological, morphology that his homological structure, agrees with the whole animal kingdom. Palæontology has stamped in permanent letters of stone the same succession of animal life, impressed by fleeting hours on the offspring within the womb of every mother; and comparative anatomy, physiology, and pathology, present innumerable general, as well as special facts, to prove—that man, though ultimately formed of those chemical elements, which constitute in part, "the dust of the ground," was not formed directly out of these lowly dead inorganics, but had his immediate origin from the very highest organic living matter.

* Human anatomists habitually assert or imply that all mammals have a cæcum; but, Mivart's Element. Anat., pp. 447-8, teaches that "the presence of a cæcum is not quite constant in man's class," for "it may be wanting altogether, as in the hedgehog, weasel, porpoise, and others."

† The cat, dog, and other carnivora, says Chauvau's "Comp. Anat. of Domesticated Animals," p. 417.

‡ Man's cæcum is a small reservoir, only 2½ inches in length; his cæcal appendage is very variable in length, usually about three, it may be six inches long. This variability is significant.

A CASE OF PUERPERAL ALBUMINURIA, WITH URÆMIC SYMPTOMS, TREATED BY JABORANDI.

By ELIZABETH M. CUSHIER, M.D.,

RESIDENT PHYSICIAN OF NEW YORK INFIRMARY.

At the last annual meeting of the Gynæcological Society, Dr. T. G. Thomas suggested the use of jaborandi in the treatment of the parenchymatous nephritis of pregnancy. Upon reading this suggestion in the minutes of the Society, published in The Record at the time,* I thought that the report of such a case, which had already occurred under my own observation, and where jaborandi had been successfully employed, would not be devoid of interest. It is believed that some of the details of this case may moreover help to throw light upon the exact modus operandi of this medicine in the treatment of uræmic symptoms.

Agnes H., prim., entered N. Y. Infirmary for Women and Children, for confinement, on September 5, 1878. The patient gave a history of having been in poor health during her entire pregnancy, but no satisfactory details regarding it were obtained.

Upon seeing the patient I was struck by the pallor and slight puffiness of the face. Elsewhere there was no œdema, excepting to a very slight degree in the lower extremities. An examination of the urine giving perfectly normal results, it was concluded that the œdema was due to anæmia alone, and treatment was directed to this.

From this time the general condition improved; her face assumed a better color, and she reported herself as quite well until the evening of Sept. 28th, when she complained of having had headache and nausea during the afternoon. Her face was flushed and the tongue coated. The temperature and pulse were normal. A cathartic was given, and the urine directed to be again examined.

On the following morning the patient was reported as having been very restless during the night. The bowels had not moved, nor had any urine been passed since 5 P.M. of the day previous. The face was now decidedly œdematous. The headache and nausea were very much increased, and there was marked impairment of vision. Four ounces of urine were removed by the catheter, and upon examination it was found to be loaded with albumen. At 9 A.M. a purgative was administered, but it was immediately vomited. An enema was then given containing three minims of croton-oil, and was followed by two small stools. The hot-air bath was then employed with the effect of producing only a slight moisture of the surface. Later, considerable pain in the region of the kidneys being complained of, dry cups were applied, with relief. The nausea persisted with occasional vomiting, and the patient was unable to retain even a little milk or water. Microscopic examination of the urine at this time showed blood-corpuscles and small waxy casts.

At 4 P.M. one-sixteenth grain of pilocarpine was

* Medical Record, October 12, 1878.

given hypodermically, and repeated three times at intervals of half an hour. A decided moisture of the skin followed, but no profuse sweating.

At 5 P.M. five ounces of urine were removed, which upon boiling was found to be two-thirds loaded with albumen.

At 7.30 P.M. another effort was made to move the bowels, a half-grain of elaterium being given per rectum. This was repeated at 11.15 and at 11.30 P.M. without effect.

On the following morning the patient was reported as having slept somewhat during the night. She had vomited but twice, and had retained a little milk. The headache and nausea were diminished; the bowels had not moved, however, nor had any urine been passed. The pulse was at this time 84, and the tension very much increased. At 11 A.M. seven ounces of urine were drawn. The character was the same as before. At about this time Dr. Putnam-Jacobi saw the patient, and advised the administration of pilocarpine in larger doses. A half-grain was accordingly given hypodermically, and was followed within five minutes by profuse sweating, ptyalism, and vomiting of mucus. During the afternoon there was very marked improvement in the symptoms. The headache and nausea subsided, and milk was retained without difficulty.

At 7 P.M., as there had still been no movement from the bowels, the patient received one-quarter grain of elaterium by the mouth. This was repeated at 9 and 11 P.M. At 4 A.M., Oct. 1st, there was a small stool.

During the morning seven ounces of urine were drawn. There was no diminution in the amount of albumen. Blood and casts were still present—the former, however, in less quantity. At this time a decoction of scoparius was ordered, half an ounce to be given every two hours during the day. A 7 P.M., as the amount of urine passed was still very small, the jaborandi was repeated—this time in the form of the fluid extract, of which ʒ j. was given. The sweating was again profuse, and during the night the urine began to flow freely. From this time there was neither headache nor nausea. The puffiness of the face diminished, and food was retained and relished. The urine continued to flow freely; it was still, however, loaded with albumen.

Oct. 5th, 7.30 P.M.—Patient began to have slight labor-pains, and with the object of warding off any possible danger from an increase of the renal congestion during the effort of parturition, the jaborandi was repeated, with the same effect as before.

The labor progressed, and terminated naturally at 1.30 A.M., Oct. 6th. During the latter part of the labor there were at times marked dilatation of the pupils and extreme pallor of the face. No serious symptoms, however, manifested themselves. Immediately after labor the patient complained of severe pain in the head. The pain was referred to the vertex, and was apparently most intense. It was controlled by morphine.

At 11 A.M., on the 6th, six ounces of urine were drawn; this being all that had been excreted since the previous day, unless it had been involuntarily passed during labor. It was found to be nearly solid with albumen. The decoction of scoparius was again given, and during the night the urine began to be more free. The pulse, which had varied from 72–84, and which had been increased in tension, now became more rapid, varying from 96–108, and the tension was very much diminished. The urine continued to be passed freely—reaching, on some days, as high as 40–42 ounces. The albumen diminished in amount, and the blood-corpuscles disappeared. There were still present, however, very slender hyaline casts. On Oct. 29th, the patient was discharged in an apparently very good condition, although the albumen had never entirely disappeared from the urine.

It seems quite probable, judging from the severity of the symptoms at the beginning of the evidence of uræmic poisoning, that serious trouble might have arisen at the time of labor, had not very active treatment been resorted to; and of this treatment it is evident that the jaborandi was followed by the most decided results. Diuretics were without effect until the renal congestion had been relieved, and the cathartics employed for this purpose were quite ineffectual, although care was taken to procure a good preparation of the elaterium. It is noticeable that although the uræmic symptoms had disappeared, it was not until after profuse diaphoresis had taken place a second time that the kidneys began to act.

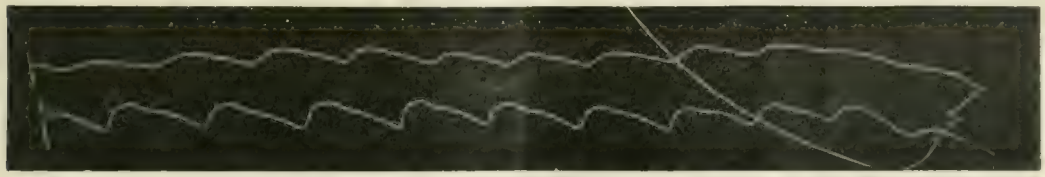


FIG. 1

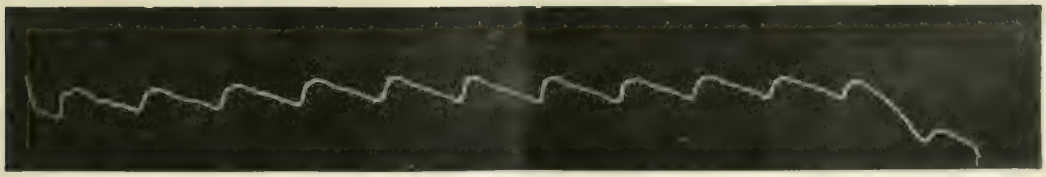


FIG. 2

notwithstanding diuretics had been previously employed.

The jaborandi was not followed by any undesirable effect either upon pregnancy or labor. The latter—although the pregnancy was fully at term—did not take place until a week after the beginning of the administration of the drug.

The following analysis of sphygmographic traces, taken at different periods of the attack, has been given to me by Dr. Putnam Jacobi.

The first traces were taken September 30th, the day

after the first appearance of the uræmic symptoms. Pilocarpine had been given the day previous, but with only slight effect in producing perspiration. Typical trace-pressure of 8 oz., Fig. 1; percussion stroke vigorous, but oblique and short; systolic apex extremely rounded, passing into developed tidal wave; scarcely any trace of dicrotism; no elasticity oscillations; ventricular systole prolonged. The traces were almost as much developed under high pressure as under lower. All these characters show high tension of vascular system dependent upon repletion of some portion of it, which repletion offers considerable resistance to the cardiac impulse. After profuse sweating from one-half grain of pilocarpine, trace changes. Under

Fig. 3.

pressure of 9 oz. Fig. 2, the tidal wave is less developed, and, from the aortic notch to the end of the curve, the line is flattened instead of rounded, as in the first traces. This shows that the wave of blood reflected from the aortic valves on their closure is smaller in the second case than in the first. In other words, the tension has been positively, though not very markedly, diminished by diminution in the contents of the arterial system. The force of the heart remains unaltered. The diminution in intra-arterial pressure can only have been effected indirectly by diminution in the venous tension through the profuse diaphoresis. The uræmic symptoms, once dissipated, did not return, but the urine continued to be loaded with albumen. The third series of traces were taken on October 4th. At this time the high arterial tension was found to have been reproduced, but entirely unaccompanied by uræmic symptoms. The urine, although more abundant, was still loaded with albumen. The patient felt perfectly well. In this series of traces the curve was developed at a very low pressure (three ounces), Fig. 3, which with Mahomed's sphygmograph usually gives no tracings at all. The artery, however, continued to yield abnormally developed curves under a pressure of ten ounces, and even under eleven, at which it is usually extinguished; the curves were more full than is often found in women. Dicrotism was effaced. From all these characters we must infer that, under the influence of the tubular nephritis obstructing the transudation of water, the serous repletion of the vascular system had been reproduced, while the complete absence of uræmic symptoms would show (at least in accordance with a theory partly based upon this very class of cases) that the cortex of the kidney was at this time unaffected.* The transitory uræmia would then be explained by a temporary congestion of the cortex complicating the ordinary medullary or superficial nephritis of pregnancy.

Since the relief afforded to the uræmic symptoms by the pilocarpine was out of proportion to the alteration in tension of the radial pulse, it is evident that the diaphoresis must have acted in some other way than by lowering the general vascular tension, by the removal of an excess of water from the blood.* It is evident, moreover, that an abnormally high tension of the vascular system, together with intense albuminuria, is not sufficient to cause the cerebral symptoms. As in this case both these conditions persisted, while the latter symptoms were absent, two hypotheses suggest themselves to explain the action of the jaborandi:

1st. The excessive secretion of the perspiratory glands sufficed to remove from the blood not only an excess of water, but also the poisonous organic substances usually excreted by the kidneys (urea, extractive.)

2d. The determination of blood to the skin to meet this exaggerated activity of the sweat-glands acted as a derivative to the circulation of the kidneys, and thus relieved the congestion of their cortex. The desquamative lesion of the medulla remained untouched, and therefore the albuminuria persisted. Further, in a general afflux of blood to the periphery the peripheric radial artery must necessarily share, and by this must its tension be increased, even though the tension of the central vascular system had been lowered. This circumstance may explain the fact that the radial pulse was so little altered after the administration of the jaborandi. Had sphygmographic tracings been taken of the carotid or of the heart, a greater difference might, perhaps, have been demonstrated.

* Lecorché adduces such cases as proof, among others, that the separation of the water of the urine takes place in the medullary tubules, and the separation of the urea and salts in the glomeruli and convoluted tubes of the cortex.

* Eine Hypothese uber den Zusammenhang in welchem die sogenannten uræmischen Anfalle zur Erkrankung der Nieren stehen. Traube, Gesammelte Abhandlungen. Bd. II., p. 551.

ABSCESS OF THE LIVER FOLLOWING DYSENTERY.—ASPIRATION.

Discharge of Pus into the Peritoneal Cavity. —Death.

By WM. PEPPER, M.D.,

Professor of Clinical Medicine in the Medical Department of the University of Pennsylvania.

A. McC., æt. 39, employed in Philadelphia Gas-Works. Has always, until lately, enjoyed general good health, and has always been a sober, steady man. In August, 1878, he was attacked with dysentery, which lasted for three weeks, after which he apparently convalesced. In a few days, however, he was attacked with irregular rigors about noon, followed by fever during the afternoon and evening, and marked sweating at night. This state of affairs continued about one week, when he began to improve; the fever diminished, or ceased, and, although weak, he returned to work. One week later the same symptoms recurred, and he was again confined to the house for a week. He then again improved, and was able to do a little work for four days; after which he was for the third time attacked with an irregular fever of a hectic type.

During most of the above time there had been increasing pain in the region of the liver. In the early

part of November this pain became very severe. It was then chiefly referred to the region of the gall-bladder and the lower part of the liver. Occasionally it extended through to the back, or up towards the right shoulder. A dry cough, attended with some pain, appeared in November. He had marked night-sweats, and lost flesh, strength, and all appetite. He was then treated for typho-malarial and gastric fever.

I saw him first on December 1, 1878, at the clinic of the University Hospital, and found a distinctly increased area of liver dulness, with some fulness of the right chest over the site of the liver. There was also marked tenderness over the gall-bladder and up to the sixth interspace in the line of the right nipple. There was distinct yellowness of the skin, almost amounting to jaundice. The urine was dark, and the stools light yellow. I was satisfied that an abscess of the liver existed, but as the patient was oblged to return home, aspiration could not be performed. Poultices were kept constantly applied, and atropia and morphia were given to check the night-sweats and to induce sleep. There was always an increase of the pain felt upon motion. During the next few days the constitutional disturbance increased markedly.

On December 8th I saw the patient again. The yellow tinge of the skin was then very apparent. The pulse was small and excitable—112 to the minute; the respirations were 27. There was marked impairment of motion over the lower part of the right chest. A careful inspection showed some fulness of the hepatic region, as compared with the left hypochondriac region. The fifth, sixth, seventh, and eighth intercostal spaces on the right side were filled out level.

By percussion, the following results were obtained: the right lobe of the liver was found to extend below the margin of the ribs. In the region of the gall-bladder, especially, there was well-defined resistance over an area of two square inches. The dulness in the line of the right nipple extended upward to the fourth rib. Laterally, it either reached the same level, or extended somewhat above it, towards the posterior border of the axilla. In the sitting posture, the upper line of dulness in front varied very slightly, the line of absolute flatness rising not more than one-half of an inch. The dulness in the axilla fell slightly. Posteriorly, dulness extended up to the angle of the scapula, and complete flatness up to within one inch of that point. When the patient turned on the left side, there was a decided falling in the line of dulness laterally and anteriorly, and posteriorly round to the very vertebral gutter. Percussion showed, however, that in this position there was no depression of the liver below the margin of the ribs. It was thus clear that there was very little, if any, pleural effusion of a liquid character, but that the changes in the level of dulness were chiefly due to the varying degrees of expansion of the right lung. Over the area of flatness there was absence of respiratory murmur and of vocal resonance; but vocal fremitus was obscurely felt downward as far as the upper part of the hepatic area. Posteriorly, there was feeble respiratory murmur, with crackling sounds (dependent upon the plastic pleural exudation), for an inch and a half below the angle of the scapula.

There were no signs of disease in the upper part of the right chest or of the left lung. The heart was displaced upward and toward the left, the apex-beat being in about the position of the left nipple.

Excessive pain was felt in moving or turning. There was tenderness over the region of the gall-bladder, and to some extent over the anterior surface of the liver; but careful palpation showed that the tenderness was by far the most intense over a circumscribed spot in the line of the right nipple and in the sixth interspace.

The smallest-sized aspirating needle was introduced to the distance of one and one-half inches at this point, in a direction slightly upward, and f. ℥iv. of dark, thick, grumous pus were withdrawn. Some immediate relief was experienced. When the needle was first introduced, it was free to move in the cavity; but, after the pus had ceased to flow, the roughened wall of the abscess could be distinctly felt by the point of the needle.

No larger canula was introduced, because it was thought to be safer to watch the effect of the partial aspiration; and, in case the same symptoms recurred, to repeat it later. Very little, if any, change was produced in the physical signs by the withdrawal of the above small amount of pus, and it was therefore evident that the main collection remained.

The patient slept much better during the following night, and was easier on the next day. On the second day, when I next saw him, he expressed himself as feeling very greatly relieved. There had been some slight return of appetite, and he had slept much better. There was also some reduction in the rapidity of the pulse. The physical signs remained the same, and there was still marked soreness upon pressure at a point in the sixth interspace, somewhat to the left of the point of juncture.

The same evening (Tuesday, December 10th), about eight o'clock, he was seized with a sudden and very violent pain, extending through from the hypochondrium to the back, near the angle of the right scapula. His breathing was oppressed, and he had nausea. On Wednesday morning he was evidently sinking from the shock of the sudden peritoneal inflammation. The pulse was rapid and thready; the breathing hurried and gasping. The belly was distended and tender. Extreme pain was felt over the hepatic region. There was great thirst. The stomach was unretentive. These symptoms persisted, and on Thursday night he died.

At the *autopsy* the head was not examined. Upon opening the abdomen the peritoneum was found to be congested, and there was a considerable quantity of grumous pus, similar to that which had been removed by aspiration, diffused throughout the abdominal cavity. There were not, however, any marked deposits of recent lymph. The omentum was drawn upward, and was found to have attachments, by soft, yellowish lymph, along the line of the lower margin of the ribs. When it was released, the anterior border of the liver was found to project two and one-half inches below the ribs at the position of the gall-bladder. The left lobe of the liver was but slightly enlarged. There was marked perihepatitis with flakes and layers of soft yellow lymph. There was also a considerable quantity of the same dark, grumous pus confined between the diaphragm and the liver. Upon removing the liver, its upper surface showed extreme bulging, due to the presence of an enormous abscess in the right lobe. The wall of this abscess was thin, and it fluctuated upon the slightest touch. It was of a pale grayish-red color, and in one circumscribed point presented a blackish, gangrenous appearance; it was found that perforation had occurred here. The point at which the aspirating needle had been introduced was not visible, but by compressing the abscess a few drops of pus could be forced out of a minute aperture which was presumably the point of puncture.

On opening the abscess it was found to be not less than six inches in diameter, and was filled with thick, shreddy pus of varied colors. The wall limiting the abscess was, with the exception of the upper portion, firm and whitish. No minute examination of it could be made. The rest of the liver was softened and pale.

The diaphragm, corresponding to the superficial part of the abscess, was much softened, and tore very easily. Its peritoneal surface was covered with soft, yellowish lymph. There was no appearance of a near approach to perforation of the diaphragm.

Doubtless the tendency was to perforation of the diaphragm, and to the discharge of the abscess into the lung, but the adhesions between the liver and diaphragm were too soft, so that the peritoneum ruptured and the pus discharged between them.

The right lung was closely adherent throughout; the adhesions being comparatively recent, especially over the lower lobe and over the diaphragmatic surface.

The left lung was not adherent save at a few points. Throughout both lungs, which were highly pigmented, were numerous shot-like bodies. Upon section, these were proved to be dry, whitish, caseous, encapsulated collections. Whether these were connected with the abscess, or simply due to his occupation in the gas-works, was hard to determine, though the latter is the more probable supposition.

The heart was healthy, but was pushed to the left and upward, its apex being situated under the site of the left nipple.

Remarks.—It is unfortunate that the circumstances under which the patient was first seen made it impossible to aspirate the abscess promptly. During the ensuing week such destructive changes occurred as to render a favorable result impossible. The abscess had already ruptured and a portion of its contents had escaped into the space between the liver and the diaphragm. The adhesions which had formed were too soft to long retain it here, and aspiration secured only a brief period of relief.

The abscess was in this case clearly connected with the preceding dysentery, and was probably embolic in its original character. The irregular and intermittent course of the hectic symptoms in the earlier part of the case is interesting, and perhaps points to different foci of suppuration which coalesced later. The position of the abscess would have made it a favorable case for treatment if its nature had been recognized earlier.

In reference to the recent discussion concerning the frequency of hepatic abscess, I may state that this lesion is undoubtedly somewhat rare.

Hypodermics of Ether in Sciatica.—Dr. C. G. Cooper claims [illegible] that hypodermic injections of ℥ xxx. of sulphuric ether [illegible] night and morning, passing the needle a little posterior to the great trochanter, have cured this obstinate affection in his and in others' hands.

Chloramy or Potassa Poisoning.—Half an ounce swallowed by a two and a half year old child, through mistake, gave rise to severe gastritis and some vomiting, which resulted in death in spite of treatment.—*Amer. Med. Gazette*, Aug. 1878, No. 99.

Sulphurous Acid in Phthisis Vulvæ is highly recommended by Dr. E. B. Stevens. Applied in its full strength it gives prompt relief.

Reports of Hospitals.

GUÉRIN'S COTTON WOOL DRESSING IN THE PARIS HOSPITALS.

By M. J. HALLORAN,

Élève at La Pitié Hospital.

Service of M. Verneuil.

Paris, France, Jan., 1879.

In this note, suggested by a recent clinical lesson at La Pitié, by M. Verneuil, we do not by any means intend to consider this apparatus in all the numerous applications to which M. J. Guérin has put it, but merely to recall the cases, or at least some of them, in which we have seen it used during the two years and a half that we have been élève in the Paris hospitals.

As is well known, M. J. Guérin insists on perfect occlusion with compression; to obtain this he applies, first, two or three layers of cotton-wool, then a linen band tightly drawn over all, then another layer of cotton, then another band, and so on, until, in a case in which he applied it at St. Bartholomew's Hospital, at London, he used up five pounds of cotton-wool; we confess we have never seen him carry the idea so far in his own service.

The first case in which we saw it applied was in M. J. Guérin's service—a case of bad, complicated fracture of the leg—the patient, a woman, having been run over by an omnibus. The result was excellent; the fever was very moderate, the patient suffered very little, and left the hospital with the fracture consolidated and the wounds healed.

We next saw the apparatus employed several times in the service of M. Gosselin; but it could hardly be called the dressing of M. J. Guérin, for M. Gosselin, like M. Verneuil, being opposed to the doctrine of union by first intention, and fearing the stagnation of pus in the wound, passed a drainage-tube between the flaps, leaving the two ends hanging out between the layers of cotton; through this tube he injected several times carbolized lotions, and as the tubes were often stopped up, the injection remained, in part, and after a few days—it was in mid-summer—the odor around the bed was very noisome; but M. Gosselin did not remove the dressing until the fifteenth day. In the interval the temperature had always been moderate, and the patient did not at all suffer. The wound was found suppurating, but the cicatrization had already commenced at the base of the flaps. The complete union in this case was very slow with the carbolized dressing, which M. Gosselin preferred to applying the cotton dressing a second time. It is but just to say that this patient was operated on on account of a white swelling of the femoro-tibial articulation, and that he succumbed shortly afterwards to tuberculosis.

During the vacation, when acting as externe with M. Berger, who replaced M. Gosselin, we saw him apply this dressing frequently, but after the manner of M. Guérin, and leaving it in place also, like him, for about thirty days, without changing, in two cases of amputation: the first, of the forearm, the carpal articulations having been opened by the bite of a horse; the second, of the leg, for prolonged suppuration from the carpal articulations of the foot. In both cases the result was excellent; the fever very moderate; the suffering so little that we saw the first patient walking about, a week or two afterwards, with

his arm in a sling. Both the patients were discharged convalescent, without having suffered from any complication.

M. Verneuil, in his lecture the 17th December, having just applied the apparatus in a case of suppurating arthritis of the wrist-joint, recalled his experience of it in cases of a similar nature. He remarked that its application in arthritis was not at all new, that it differed very little from the apparatus of Burrgraeve, employed very often by Nélaton (Thèse du Dr. Pilate, "De la compression dans les tumeurs blanches," Thèses de Paris, 1864). In the first case of this kind practised by M. Verneuil had applied this dressing the result was very striking. It was in a case of suppurating arthritis of the wrist which had lasted eight months; every means was tried—injections, splints, bandages, with permanent potassa—but without the slightest amelioration, hectic fever set in, the temperature was at 39° 40° (centigrade) in the evening, and the patient, fearing to die in the hospital, wished to return home, when M. Verneuil, who had just had a success in a similar case in his private practice, applied the apparatus with splints to insure perfect immobility. Three days after this application the temperature had fallen to 37° 38° (C.), the pain had entirely disappeared, and, after renewing the dressing twice during fifteen days, the patient was enabled to return home, coming at intervals of fifteen days for the renewal of the dressing; and after two months nothing more was seen of her. In another case, shortly afterwards, the effect was not less remarkable. It was a young man, already phthisical, who had been confined during three months previously in a prison-cell, and who was brought into the service with suppuration around the tibio-tarsal articulation and in the synovial sheaths of the tendons of the posterior muscles of the leg, with retraction of these tendons. At his entrance hectic fever had already set in; the amputation was imminent, the patient became day by day more feeble, and amputation seemed to offer the only chance of saving his life. M. Verneuil, however, encouraged by the other cases, applied the dressing, and the effect surpassed his expectation; after six days the fever had disappeared, and there was much less suppuration; in three months the patient was considered convalescent, and the retraction of the muscles had entirely disappeared. M. Verneuil has had the same result several times since; but in one case, though the dressing produced at each application an amelioration, the suppuration did not cease, and amputation was found necessary. A somewhat similar case occurred in the service of M. Alphonse Guérin. Those who wish to study the subject farther than the limits of this note will allow to can consult with first the thesis of M. Hervey, Thèse, Paris, 1871, "Applications de l'ouate à la conservation des membres et des blessés," thesis crowned by the Société de Chirurgie of Paris; and also the thesis of M. Blanc: "Pansements ouatés dans les arthrites suppurés," in which they will find at length the two cases of M. Verneuil that I have mentioned.

Dangers of Vulcanized Rubber Nipples.—Dr. Fournier, of Lyons, reports two cases of poisoning in young infants brought up by hand, both of which were probably due to the employment of white vulcanized rubber nipples. The symptoms were analogous to those of poisoning by the sulphide of antimony, and as that substance is employed in the vulcanization of the rubber it was in all probability the cause of the accidents. One of the cases terminated fatally

Progress of Medical Science.

Syphilis in Relation to Marriage.—Some very useful rules in regard to this matter have been laid down by Dr. A. Fournier, in a lecture delivered at the Hôpital St. Louis.

There are three dangers which a syphilitic may cause by marrying. He may infect his wife, who will suffer not only from the disease but from other causes, for he may transmit the illness to his children, and he may, after marriage, be made incapable by the illness, or even incapacitated from supporting his family.

In view of these things it is our duty to advise against marriage, except under special conditions. These conditions, which, if complied with, may make it tolerably safe to marry, are:

1st. Absence of actual manifestations of the disease.

2d. Advanced age of the patient.

3d. A period of latency since the last outbreak.

4th. A non-contagious character of the disease.

5th. Adequate specific treatment.

The minimum time after which it might be safe is four years, and the maximum time after the last outbreak should be eighteen months.—*Med. Times*, Jan. 4, 1879.

The Elastic Bandage in the Treatment of Aneurisms.—It seems likely that Esmarch's bandage will add very greatly to our means of treating aneurisms. Dr. Weir has collected twenty-four cases of the femoral, femoral, and popliteal, and, mostly the latter, treated in this way. Twelve of these were successful, while the others failed, owing chiefly to the fact that obstruction to the arterial current was not kept up after the removal of the elastic bandage. Upon this point Dr. Weir lays great stress, and states that in it is the gist of the treatment.

In connection with the study of this matter, the question of how long a limb can be kept bloodless is of importance. In the lower extremity this is not for eight hours. In one case the time is longer than has been noted, it appears. In general, however, four, five, and in one case fourteen hours without injury. During the compression it is important to remember that the arterial tension elsewhere is increased.

Accidents have made it probable that amputation may be in the future substituted in certain cases for the artery. The arterial wall then becomes organized into one of its tissues, and for this organization a healthy state of the wall is necessary. Aneurisms with large openings are perhaps more easily cured by Esmarch's bandage.

As the result of a study of the cases collected, including his own, Dr. Weir recommends a plan of treatment like the following: The limb should be [illegible] on to the tourniquet and elastic bandage, and [illegible] it. The tourniquet should stand before the elastic bandage is put on. Tubing should be applied in the usual manner. The elastic bandage should be kept on for two hours, followed by the application of a tourniquet for two hours. If pulsation is still apparent the elastic and tourniquet alternately should be repeated until pulsation has ceased. After suppression of the tumor is secured, it would be well to [illegible] that the arterial current keeps the tumor for [illegible] by keeping pressure at [illegible] points of shut.—*Amer. Jour. Med. Sciences*, Jan., 1879.

Colles's Fracture.—In opposition to the position taken by Dr. Pilcher, Dr. J. S. Wight, of the Long Island College Hospital, maintains that fractures at the base of the radius are due to a combination of forces, of which the traction on the anterior ligament is but a small unit. In all cases, whether due to falls upon the palms, or to forced extension, three distinct forces may be distinguished: the extending power applied to the palm, the pressure of the radius upon the carpus, the resistance offered by the tendons and ligaments on the anterior of wrist-joint. These represent the forces of a lever, of which the fulcrum is the point of pressure of the radius upon the carpus; the long arm, the distance between the fulcrum and extending power in palm; the short arm, the distance between the fulcrum and the insertion of tendons, etc., on the anterior of joint. The pressure of the carpus upon the radius is equal to the sum of the other two forces, and must necessarily have a greater influence than either of them singly in the determination of a fracture. This is proved clinically by the fact that in a certain proportion of cases the line of fracture is between the fulcrum and the insertion of the ligament, whereas, if the fragment were pulled off by the ligament, the line of fracture should be beyond the ligamentous insertion. In one of the cases reported by Dr. Cameron, of Glasgow, the fragment was not completely separated, but was hinged anteriorly, and firmly impacted posteriorly, which should not have been the case if Dr. Pilcher's ligament were the principal cause of the fracture. From his investigation on this subject, Dr. Wight has arrived at the following conclusions: A fracture at the base of the radius may be anywhere within one and a half inches of the lower articular surface; or it may consist of a chipping off of the posterior lip of the articular surface; the fracture may be transverse, oblique, vertical; it may be impacted or comminuted; it is generally caused by the reaction of the resisting surface on which the palm of the hand strikes at the time of the fall, the carpus being driven or pressed against the base of the radius; it may be caused by extension or flexion of the hand on the forearm; muscular contraction must be recognized as an associate cause of importance; an important element in the causation of this fracture is found in the structure of the bone, the seat and direction of the fracture being usually where there is least compact tissue. Special exception is taken to the assertion of Dr. Pilcher, that "the fracture never entails permanent disability," for clinical observation and post-mortem examinations show that there are, and must be, some cases of fracture at the base of the radius, which will inevitably result in permanent deformity and disability.—*The Medical and Surgical Reporter*, November 16th and 23d.

Pathology of Urethral Stricture.—Dr. John H. Brinton presented to the Pathological Society of Philadelphia, six specimens of urethral stricture, accompanying them with short histories of the cases. The attention of the members was called to the manifold causes of death in the respective cases—to wit, inflammation of the prostatic plexus of veins, inflammation of the prostate gland, and prostatic abscess, acute nephritis, pyelitis, multiple abscess of the kidney, extra-prostatic abscess, and tubercular deposits in the bladder and testicle. He remarked that while in most cases the autopsy sufficiently accounted for the fatal result, in the last case recorded, absolutely nothing was developed which threw any light on the cause of the death. The man was operated upon, and in eighteen hours died; whether in consequence of the operation, or simply as a coincidence, it is impossible to say. The period at which death occurred after the operation varied from eighteen hours to thirty-seven days. Urethral fever was present to a greater or less degree in all these cases. His observations on the localities of stricture agreed in the main with those of Sir Henry Thompson. These conclusions were based on an analysis of 132 strictures in 100 cases.—*Medical Times*, December 7, 1878.

Treatment of Early Phthisis.—In the treatment of early phthisis, attention to the stomach and bowels is scarcely of secondary importance to the treatment of night-sweats. When the tongue is covered with a thick fur it is useless, or nearly so, to give iron and cod-liver oil; for the tongue is the indicator of the state of the intestinal canal, and absorption through the thick layer of dead epithelium cells is well-nigh impossible. Special attention should be given to all drains, such as diarrhœa, or, in the female, leucorrhœa or menorrhagia. All intercurrent disease or accident should be attended to assiduously. Hæmoptysis not uncommonly ushers in the end of a case of phthisis, but, on the other hand, it is often one of the best forms of local bleeding, recovery setting in from that hour. As a matter of clinical experience, slight hæmoptysis in early apical consolidation is usually associated with constipation, and is relieved by acting upon the bowels. When this symptom is associated with cold hands and feet, and the contraction of the vessels of the systemic circulation leads to increased blood-pressure in the lesser or pulmonic circulation, it is well to put the patient to bed, with hot bottles to the extremities, and hot fluids to drink, so as to dilate the systemic vessels generally, and so relieve the pulmonic congestion. The effects of mechanical irritants upon the diseased lungs are not sufficiently appraised. The advantages of a sea voyage, or a residence in the country, are due as much to the fact that the injured lung is not irritated by particles respired along with the air, as to the beneficial effect of improving the general health. Hygienic and dietetic matters should be carefully considered. Proper ventilation and an abundance of out-door exercise are indispensable. The diet should be nutritious and easily assimilable; it should consist of meat-juice in any form, milk and farinaceous foods, and especially the different foods prepared for infants, which are mainly starch partially digested. Alcohol may be taken with the food to aid digestion, and a glass of sound wine or good malt liquor, at lunch and at supper, is often of service; but the constant sipping of alcohol is bad, and the port-wine treatment of phthisis is unjustifiable, where it is not a hollow mockery and the wine a vile adulteration. The use of an opiate linctus, "to be taken when the cough is troublesome," is often followed by the most disastrous consequences, loss of appetite and flesh, constipation, etc. Where the cough is very troublesome, bromide of potassium may be given as affecting reflex action favorably with a minimum of bad after-effects. Hydrobromic acid with spirits of chloroform is effective in relieving cough. When a history of syphilis is present the prognosis is not so grave, the disease being amenable to specific treatment.—*J. Milner Fothergill*, M.D.: *The Practitioner*, October, 1878.

MM. Fauvel and N. Guéneau de Mussy are retired, on account of age, from the Hôtel-Dieu. Their successors are MM. Empis and Moutard-Martin.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, February 22, 1879.

OVER-CROWDED ASYLUMS.

It is not a very creditable fact that in spite of investigations, reports, large appropriations, and new and costly asylums for the insane, there is quite as much over-crowding in them now as ever. There are seven thousand lunatics in the New York institutions, and there are proper accommodations for about four thousand. New York city tolerates within its limits an asylum which is essentially unfit, both in location and arrangement, for the treatment of the insane, and which now contains nearly half as many again as it properly should. There have been housed on Blackwell's Island thirteen hundred patients in wards intended for nine hundred. The whole has of course been run by a political machine, assisted medically by such fresh graduates as could be induced to remain a few months for washing and board. And New York is a city whose tender charity does not allow a horse to fall to the ground except under humane conditions.

We are assured, in reports, that this is a very sentimental view of the question, and that everything possible is being done. On the contrary, we cannot discover the slightest evidence that there is to be any permanent relief from over-crowding or any better supply of attendants. The large asylums, to be sure, are increasing their capacity, and in another year will have several hundred more beds. But the insane are increasing also every year at the rate of three and a half per cent., and these new wings and refurbished garrets will soon be filled. In addition to this, the continual enlargement of these already large asylums is but aggravating the misproportions of what is already a deformity.

The Association of Superintendents of Insane Asylums long ago fixed the proper limit to the capacity of an asylum at 250 patients, and recommended 200 as a better maximum. The resolution establishing this limit has been frequently endorsed since. Right in the face of this, however, several large asylums have been built at an extravagant expenditure, and these are now being further enlarged. Meanwhile the problem of the disposition of the insane remains unsolved, while that of their proper care and rational treatment is in a still more hopeless condition.

Fortunately, however, there seems to be developing a tendency which may lead to better things. There is a growing desire on the part of the counties to keep their own insane, caring for them in county asylums. Some such method as this could be made very effective, and we believe that the movement should be encouraged. If necessary, two or three counties could unite in common to build an asylum. In this way the insane could be easily reached and speedily treated. It is found that the per cent. of insane to the population near an asylum is about 1 to 1,000. But as one recedes, the ratio increases, until, at the farthest limits of its districts, the proportion is 1 to 18,000. This shows either that insane asylums are contagious, or that lunatics at a distance do not get treatment. We assume the latter inference, and believe that by a system of smaller asylums, every one could be cared for.

To the objection of a possible increased expense we can say, first, that it is the part of humanity to care for the poor and sick in the best manner possible, and this should be our greatest consideration. On the other hand there might be no increase, but even a decrease in expenditure. Up to a certain point, the large hospitals are more economical; but there is a limit to this, and the very large ones do not save money proportionately. Besides this, with smaller hospitals the cost of transportation will be saved and the increased number of cures from early and judicious treatment will save the great expense of a long life of chronic insanity.

It would be easy, also, to combine a county hospital with the asylum; and the pauper sick, who are now treated by the poorhouse doctor at the regular fees, could receive the best treatment in these hospitals without charge. It is difficult to believe that with the reproach of the present system clearly before the public, some movement in this direction will not soon be inaugurated.

MEDICAL ETIQUETTE.

THERE is nothing which is so little understood by the public as the principles upon which medical etiquette is founded. As a consequence the prejudice against the very name is something almost ridiculous. When an anxious patient broaches the idea of calling in another physician, or of asking for a change in medical advisers, he, half in pity and half in fear, apologizes for interfering with professional rules, at the same time he smiles at their absurdity. There is something to him so unintelligible concerning the whole matter of interprofessional dealing, that he is only constrained by courtesy or politeness to countenance what he be-

lieves to be the merest whim. If the patient is anxious to retain his medical adviser, and consultation with some other practitioner is declined, he is very apt to protest in something like this form: "Well, doctor! If I understand you in regard to this medical etiquette, you would rather allow the patient to die than to transgress this arbitrary and unreasonable law." And too often the physician smiles, shrugs his shoulders, and conveys the impression that he would like to oblige the patient's friends if he dared to do so. The truth of it is, the physician has not the requisite amount of moral courage or professional honor to explain the course he takes. Here we think is the root of the difficulty and the real explanation for the undisguised derision with which the public estimate our conventional rules. It supposes them to be arbitrary, unreasonable, and positively detrimental to the best interests of the sick. How can we expect the contrary opinion to prevail under the present circumstances?

Besides the men who appear to be ashamed of the profession to which they belong, there are others who are so constantly straining a point in favor of the code as to make it and themselves ridiculous. The extremists on both sides of the question do the damage. If both would meet upon the common platform of the good of the patient, no one could be dissatisfied. And after all is this not the sole object of all medical etiquette? If it is not, it certainly ought to be. None but mean spirits can take advantage of the situation.

The physician who has the real good of his patient at stake can always act consistently with the code and be on the safe side. If he is afraid or ashamed to explain the point to the sick one, he is either unworthy of the trust placed in him, or he cowardly binds himself to rules which as a free moral agent he secretly despises. Provisions are made in the code for all sorts of emergencies of apparent interferences, so that there is but little if any chance for erring on any other side than that of humanity or common-sense. But how easy it is to explain this to the interested parties and assure them that consultations in the regular way are always the best for the patient, that a full, free, and manly interchange of professional opinion gives him the best chance of having his case thoroughly understood in all its aspects, past and future, gives the best possible assurance against useless repetition of drugs, and the best promise for rational progress in treatment. How few physicians take the trouble to do this, and how often does the profession suffer in consequence.

MEDICAL BOTANY.

Of the utility of botany to the medical profession as a body there can be no more question than of its utter neglect by the great majority of the profession in this country. When we state that very few medical men know anything whatever of the botanical characters of the plants employed in medicine, we state a fact which does not redound to the credit of our profession. It is not so in Europe; it was not so here fifty years ago. In the earlier part of the present century botany was taught in the medical schools, and we are mainly indebted to the teachings of those days for our present knowledge of the North American flora. The study of botany gave impetus to original research in the path of therapeutics, as it would unquestionably again, if pursued in our medical schools. The works on medical botany, published from thirty to sixty years ago, as, for instance, Barton, Bigelow, and Rafinesque, long out of print, and rarely seen, are full of valuable and suggestive information. During the past twenty-five years no distinctively American work on this subject has appeared, and those of foreign issue have had but limited circulation in this country.

For this neglect of a science at once so valuable and so necessary to medicine, the medical schools are mainly responsible. True, the lecturer on materia medica still glibly runs over the botanical description of a plant whose medicinal action is under consideration, but he speaks in a tongue quite unknown to nineteen-twentieths of the young men before him. The candidate for graduation is expected to know nothing of botany, and, in truth, he rarely disappoints that expectation.

Is it not about time to change this order of things? If our medical schools are not ready to take such an advanced position as to make some knowledge of botany one of the *requirements* for graduation, will they not at least furnish facilities for its *optional* study? At present the medical student who has not enjoyed the advantages of a college education, has absolutely no chance to learn anything of the science, except by getting a text-book and working it out himself—a process seldom employed. As generally taught in seminaries and academies—when taught at all—it is made as dull and uninteresting as possible, while it might be made extremely fascinating.

The principles of botany are not difficult of attainment, nor would the average student need to spend a great length of time upon it to enable him to identify most of our medicinal plants.

One objection which may be made to the re-introduction of botany into the medical course—that the student has already more than he can attend to—may be answered as all objections to a higher medical education are—*lengthen the course*. Another might be urged, which 'tis hardly worth while to answer—that he who wishes to experiment with our medicinal plants can do so as well without a knowledge of their botanical character as with it. The common names of plants are totally unreliable, the same plant being known by perhaps a dozen different names in as many different localities; and, again, plants appearing

identical to the casual observer are frequently decidedly different, and possessing widely different qualities. Numerous illustrations might be offered in support of this statement were it deemed necessary.

Were the experiment made of teaching botany, say, in the summer course of lectures, when fresh plants can readily be obtained for demonstration, we are sure the result would be not only gratifying, but valuable. And when we have a body of men duly qualified to experiment with our indigenous plants in the fresh state, conducting their experiments with the accurate methods now in vogue, we shall doubtless see many potent and valuable remedies, now entirely in the hands of Homœopaths, Eclectics, and Herbalists, elevated to positions of confidence and esteem in our own materia medica, instead of being briefly described in fine print in the secondary list of the U S. Dispensatory.

Reports of Societies.

THE NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, January 6, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

CHRONIC MYELITIS OF THE ANTERIOR HORNS, WITH LATERAL SCLEROSIS. CASE OF PROGRESSIVE MUSCULAR ATROPHY.

DR. J. C. SHAW exhibited microscopic specimens illustrating changes in the spinal cord as above mentioned, and gave the history of the case with comments.

ORGANOLOGY OF THE ISLAND OF REIL.

DR. E. C. SPITZKA made a brief communication upon the above subject, and exhibited the brain of several animals.

He stated that, in order to test Brown-Séquard's proposition—that if there existed psychomotor centres in the cerebral cortex, these should be located in the homologous gyri of different animal species—he had examined and compared the relative dimensions of the island of Reil in a large series of animals, including the elephant, hippopotamus, horse, lion, chimpanzee, orang-outang, several species of rare monkeys, and the seal. He further stated that the statement made in comparative anatomical and physiological text-books—that man was the only animal possessing an island of Reil, completely covered by overlapping convolutions—was erroneous, as the island of the elephant and the anthropoid apes was as completely covered. He found that in an ascending series, beginning with the carnivora and passing through the monkey tribe to man, the island exhibited a perfect parallelism in development with the development and complexity of co-ordinations manifested by the muscles of the larynx, face, tongue, and fingers. It therefore followed that these peripheries found their central projection in and about the island in *those* animals.

But, on comparing herewith the ungulates, such as the hippopotamus, it appeared that the same area might undergo an exuberant development, even though the peripheries in question were rudimentary. A single instance like that, he believed, overthrew Brown-Séquard's proposition; and equally the objection to the experiments of Hitzig, which Brown Sequard based on this (perfectly gratuitous) assumption, fell to the ground.

DR. W. A. HAMMOND referred to the history of a case which had some pathological relation to the paper read by Dr. Spitzka.

A male patient had right hemiplegia, and absolutely complete aphasia. The clinical history was that of rheumatism, endocarditis, and embolism. Diagnosis of embolism of the middle cerebral artery was made. An unfavorable prognosis was given. Dr. Hammond thought he might improve somewhat with reference to his motor power, but that there would never be any improvement in the faculty of speech, and that he might die very soon.

It was in the spring of 1871 that he saw the patient. A few days ago he received a letter from the attending physician, who informed him that the prognosis which he had given was absolutely faulty in every respect, for the patient was not only alive, but he had not improved in the slightest degree with respect to motor power, although he was able to speak very well, and had acquired a vocabulary of about 500 words within six months.

Such recovery of the power of speech, after the development of complete aphasia, was unique in Dr. Hammond's experience, and it was for the purpose of obtaining an explanation that he related the case. He had seen cases in which persistent effort had been made to instruct aphasic patients, but the progress was so slight that the effort was abandoned. The only explanation which usually would be given was that the opposite side of the brain came to preside over speech.

DR. SPITZKA referred to reported cases in which persons with right hemiplegia and aphasia had learned to write with the left hand, thus showing education of the other side of the brain.

DR. HAMMOND thought that the improvement should have been more gradual, if such was the real explanation.

DR. SEGUIN remarked that he had seen cases of infantile aphasia, in which subsequently the patient talked as well as any one.

Special mention was made of one case in which right hemiplegia, and contraction, and imperfect development of the limbs still existed; yet the girl talked perfectly well, although the aphasia continued complete for a long time.

The explanation that the right speech-tract assumed the faculty of the left, was the one naturally given.

DR. HAMMOND remarked that it was difficult to conceive of such an education in the adult brain.

DR. SEGUIN remarked that the comparatively sudden return of speech might be explained in accordance with the law of development of speech in children; some children came out with quite a vocabulary of words in the course of a few weeks.

DR. HAMMOND remarked that the cases were not analogous, because in one instance the brain was undergoing development, while in the other it was not.

DR. GREY referred to a case, reported by an English writer, similar to that reported by Dr. Hammond. There was a history of right hemiplegia with aphasia lasting for some time, but after the expiration of several months the aphasia nearly disappeared. At post-mortem the entire third frontal convolution and parts surrounding the island of Reil upon the left side were found destroyed, while on the right side

of the brain corresponding portions were perfectly healthy. In that case there must have been a transfer of function from the left to the right side of the brain.

Dr. Spitzka referred to a case reported by a Swedish writer. A dragoon received, upon the left frontal protuberance, a kick from a horse. He was delirious shortly before death, but neither before delirium developed, nor while it was present, was there any symptom whatever of aphasia. At autopsy there was found complete destruction of the island of Reil upon the left side of the brain and all the parts surrounding it; the right island of Reil, the right hypertriculum, and the right anterior convolution were nearly all that remained of healthy brain-tissue in the anterior lobes.

Dr. Grey suggested that recovery in some cases of aphasia might be due to re-establishment of circulation in the convolutions through some of the anastomosing branches of the middle cerebral artery.

THE DIFFERENTIAL DIAGNOSIS OF NEURASTHENIA—NERVOUS EXHAUSTION.

Dr. G. M. Beard read a paper upon the above subject, which may be summarized as follows: Although neurasthenia was more common in this country than any other form of nervous disease, as yet it had been only slightly studied. The condition to which the term was applied had long been known among the people, and to a certain extent among the profession, under such terms as general debility, nervous debility, spinal weakness, and more accurately and recently by some special symptoms, such as spinal irritation, nervous dyspepsia, cerebral and spinal anæmia and hyperæmia, irritable ovary, irritable uterus, uterine asthenopia (Knapp's term), and sexual exhaustion.

His first paper upon the subject was prepared in 1868, read before the New York Medical Journal Association, and published in the *Boston Medical and Surgical Journal* for April 29, 1869. It subsequently appeared in the first edition of Beard and Rockwell's work upon electricity. That paper was based upon the study of thirty cases. For five years the subject excited but very little attention, but during the last five years a number of writers had treated the subject incidentally, if not elaborately. Among those were Hugh Campbell, of London, who issued a work upon the subject, which amounted in fact to a republication; Dr. Jewell, of Chicago, Dr. Mitchell, of Philadelphia, and also Dr. Goodell, of Philadelphia, in his recent address upon neurasthenia and womb tire, read before the American Gynecological Society. Of late, however, the subject had been studied most systematically and scientifically by Erb, of Heidelberg, who had a chapter on neurasthenia in Vol. XIII. of Ziemssen's Cyclopædia. In that chapter Erb had confirmed the description and analysis of neurasthenia which Dr. Beard had given in 1868, and had added some judicious and valuable observations of his own.

Originally the term neurasthenia included all types of nervous exhaustion; the symptoms coming from the brain and the symptoms coming from the spinal cord. During the last five years he had differentiated the symptoms coming specially from the spinal cord as *myelasthenia*, and those coming from the brain as *cerebrasthenia*. Erb did not make such distinction, but followed, in general, the description given in his original paper. Dr. Beard regarded it as quite important to make a differential diagnosis between myelasthenia and cerebrasthenia, for the hygiene and the treatment of the two conditions was quite different.

SYMPTOMS OF CEREBRASTHENIA, OR EXHAUSTION OF THE BRAIN.

The symptoms of cerebrasthenia or exhaustion of the brain were: tenderness of the scalp; a feeling of fullness in the ears and head; vertigo; tenderness of the gums; fluctuating disorders of the special senses, such as a morbid subjective smell, noises in the ears, flashes of light before the eyes, *muscæ volitantes;* morbid desire for stimulants and narcotics; deficient thirst; gaping, yawning; congestion of the conjunctiva; tendency to shed tears; mental depression; impairment of memory and intellectual control.

MYELASTHENIA, OR SPINAL EXHAUSTION.

The symptoms which suggested myelasthenia, or spinal exhaustion, were: local spasms of muscles; local chills and flashes of heat; shooting pains in the limbs; startings and jerkings on falling to sleep; morbid sensations at the bottoms of the feet, as burning or tenderness, vague pains in the feet, podalgia; sexual debility in its various phases; pains in the back, any part of it from the nape of the neck to the tip of the coccyx, with or without the accompaniment of spinal irritation; creeping and crawling sensations up and down the spine; incontinence of urine, paresis of the bladder; feeling of pressure in the chest, with or without ticklishness in that region; heaviness and stiffness of the muscles, simulating rheumatism; great sensitiveness to cold and changes in the weather; hyperæsthesia of mucous membranes, as of the throat, urethra, or larynx; morbid dryness of the skin, or morbid perspiration; dryness of the joints; dilated pupils. There were certain other symptoms, such as nervous dyspepsia, constipation, flatulence, sick headache in all its phases, numbness, hyperæsthesia, insomnia, which manifested themselves both in connection with cerebrasthenia or brain-exhaustion, and myelasthenia or spinal exhaustion.

In myelasthenia, or spinal exhaustion, physical exercise, especially walking, and standing, made the patient worse, and brought on pain in the back.

In cerebrasthenia, or brain-exhaustion, severe, violent and long-continued muscular exertion could oftentimes be well borne. Hence the practical rule of treatment, that in cerebral exhaustion—cerebrasthenia—active muscular exercise in reasonable amount might be allowed and enjoined; while in spinal exhaustion—myelasthenia—relative rest, in some cases absolute rest or only passive exercise, was demanded. A neglect of that distinction was the source of much error in practice, as verified by his experience, for he constantly saw patients who had been advised to exercise, but who should rest; and advised to rest, who should exercise.

NEURASTHENIA AND ORGANIC DISEASE.

Dr. Beard regarded it important to make a differential diagnosis between neurasthenia and organic or structural disease of the brain or spinal cord. He had been frequently consulted by physicians with reference to themselves for symptoms which were supposed to indicate ataxia or some form of organic disease of the spine or brain, when in reality they only had symptoms of neurasthenia. Some of those medical men were greatly alarmed, and the more they read upon the subject, in German authorities, the more alarmed they were, for in our literature the distinction between neurasthenia and symptoms of organic trouble were not clearly made out.

FOUR POINTS OF DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND ORGANIC DISEASE OF THE BRAIN AND SPINAL CORD.

There were four points in the differential diagnosis of neurasthenia from organic disease:

1. The symptoms of organic disease were usually fixed and stable. Those of neurasthenia and allied states were fleeting, transient, fluctuating, metastatic, recurrent, intermittent.

2. There were certain symptoms of neurasthenia which did not usually appear in organic or structural disease. Of those, mention was made of general or local itching without apparent cutaneous disease; tenderness of the teeth and gums; special idiosyncrasies with regard to food and medicine, which did not exist prior to the illness; morbid desire for stimulants and narcotics; morbid fear in its different phases, agoraphobia (fear of places), astrophobia (fear of lightning), antrophobia (fear of men); likewise sick headache.

3. In organic disease reflex activity was usually diminished, while in functional disease reflex activity was usually increased. To that rule there were some exceptions, as in spasmodic spinal paralysis.

4. Neurasthenia and allied troubles were most likely to occur in those in whom the nervous diathesis predominated.

The characteristics of the nervous diathesis he had frequently described in other writings.

Neurasthenia was to be distinguished from hypochondriasis or pathophobia, from hysteria, and from cerebral and spinal anæmia and hyperæmia.

In neurasthenia the anæmia and hyperæmia of the brain and spinal cord were results, symptoms, temporary, intermittent, and not the disease; and it was unphilosophical to call them the disease.

The same was true with reference to oxaluria, a condition often found in neurasthenia.

The doctrine that innervation preceded circulation was a growing one among neurologists. That point was urged in his original paper on neurasthenia. Vulpian's researches upon the physiology of sleep were in harmony with that view. Erb, in his chapter on neurasthenia, also leaned towards that view.

Neurasthenia was also to be distinguished from nervous syphilis, which it sometimes simulated in a wonderful way.

Neurasthenia also occasionally simulated in a perfect and interesting way the *symptoms of a common cold*. The chilliness, the positive coldness, the tremor, the heaviness, the soreness, the pain in the back and the limbs, and in some cases the excessive secretion from the eyes and nostrils, all made it hard to determine whether the patient had taken cold or not.

OVERDOSE OF ELECTRICITY.

An overdose of electricity upon a neurasthenic patient might bring on all the symptoms of a common cold, so that the patient might suppose he had taken cold.

Neurasthenia might simulate *rheumatism*.

DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND ANÆMIA.

Neurasthenia was to be distinguished from anæmia mainly by the following symptoms:

Neurasthenia was found chiefly in connection with the nervous diathesis; the patient might be plethoric; the pulse might be full and normal; no cardiac murmurs, no pallor; was common to both sexes, but not so relatively frequent in females; was benefited by remedies which directly affected the nervous system, iron alone being of but little service; recovery was gradual, and occurred chiefly between the ages of fifteen and sixty.

Anæmia, on the other hand, appeared always with the tuberculous, the rheumatic, or other diathesis; was marked by increase of the watery constituents of the blood and diminution of red blood-corpuscles; was found in all periods of life from infancy to old age; was accompanied by small, weak pulse, cardiac murmurs, pallor of the face and lips, less mental depression than was present in neurasthenia; occurred relatively more frequently in females than in males, might be rapidly cured by removal of the cause, and was benefited by iron alone.

The two conditions, anæmia and neurasthenia, were sometimes associated in the same patient.

DIFFERENTIAL DIAGNOSIS BETWEEN NEURASTHENIA AND HYSTERIA.

These two diseases were oftentimes confounded with each other. In hysteria there were usually convulsions, paroxysms, *globus hystericus*, anæsthesia of the epiglottis, ovarian tenderness, attack of general and local anæsthesia, a certain acuteness, intensity, and violence of the symptoms; was usually associated with great emotional activity; occurred most frequently in non-balanced mental organizations, and was comparatively rare in males. In the mental or psychical form it occurred with perfect physical health. Recovery might be sudden under purely emotional treatment.

In neurasthenia, on the other hand, there were no convulsions or paroxysms; no *globus hystericus*, no anæsthesia of the epiglottis; there might be ovarian tenderness, often was, but it was not so common as in hysteria; the attacks of local or general anæsthesia were not so common; the symptoms were more moderate, quiet, subdued, passive; often occurred in well-balanced intellectual organizations; very common in males; always associated with physical debility; recovery was never sudden, but always gradual.

Dr. Beard agreed with Erb that the disease needed a more systematic and careful study than it had received. It was very common, was increasing in frequency, and was the cause of a great deal of real distress. He then read the history of a number of cases which illustrated the symptoms mentioned. In some of those the diagnosis of ataxia had been made.

The Society then adjourned.

WEST CHICAGO MEDICAL SOCIETY.

Regular Meeting, December 9, 1878.

THE PRESIDENT, DR. BRIDGE, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

LUMBO-COLOTOMY FOR CANCER OF THE RECTUM.

DR. J. H. SALISBURY read the history of a case that had recently occurred in Cook County Hospital. The patient was an English sailor, thirty-five years old. He had passed blood and slime with his stools for two years; had been in hospital at Buffalo for "chronic diarrhœa," and, within a year, had been in the Marine Hospital at Chicago, where the true character of his trouble was discovered. From a year before his death he had frequent pain in the rectum. After leaving the latter hospital he took injections of carbolic acid and glycerine, which apparently gave him some comfort. He came into Cook County Hospital July 9, 1878. For a week he had had anorexia and swelling, and

more pain in the abdomen, and the dejections of slime and blood were frequent. He had lost fifty pounds in weight in two years. The rectum was obstructed by a projecting, hard, cancerous mass; the opening through or past this mass was so small a catheter would not pass. No fæcal evacuation had taken place for nine days. The necessity being pressing to give the man some relief from the suffering due to the fæcal accumulation, Professor Gunn, on July 15th, performed colotomy. An incision five inches long was made through the abdominal wall, "running from a point two inches above the anterior third of the iliac crust, obliquely upwards and backwards." On the colon being exposed, two ligatures were passed around it, and the gut divided between them. The cut ends were then stitched to the external opening. Recovery from the operation was prompt. Thereafter fæcal matter was regularly passed through the artificial opening, and there was no longer suffering from any accumulation. A month later the patient began to pass more blood and slime, with some shreds of tissue by the rectum, and to have more pain. He died of exhaustion November 11th. Two weeks before death œdema of the left leg came on. From October 18th there had been difficulty in passing urine, and the quantity of the fluid had been scanty.

At the autopsy it was found that the whole peritoneal surface was covered with "thousands of fine, white, cancerous nodules, varying in size from that of a mere dot to that of a pea." The artificial anus was found to open into the colon at a point not covered by peritoneum. The rectum and sigmoid flexure were greatly distended with cancerous infiltration; indeed the latter was everywhere throughout the pelvis. The pelves of the kidneys were distended, and the kidneys enlarged from hydronephrosis. The openings of the ureters into the bladder were closed by cancerous infiltration. The specimen was exhibited.

A discussion of the case and of the subject of colotomy for relief of intestinal obstruction then ensued, in which several members took part.

Dr. Salisbury remarked upon the easy recovery from the operation in this case, and the great relief from distressing symptoms which the patient enjoyed afterward. Death must have ensued within a very few days if the operation had not been performed.

Regular Meeting, January 13, 1879.

The President in the Chair.

Dr. E. L. Holmes read the report of a case of tubercle of the choroid in a case of general miliary tuberculosis. The specimen was found in a post-mortem examination made by Dr. Chr. Fenger at the County Hospital. Dr. H. thought this was the first instance in the North-west where a physician at an autopsy had examined the eye for tubercle of the choroid to verify the clinical fact that the choroid is often involved in acute miliary tuberculosis.

The patient was moribund when brought to the hospital, and no history could be procured. Nearly every organ of the body was infiltrated with miliary tubercle. The man was apparently about thirty-five years old. Eight miliary tubercles, perceptible to the naked eye, were found in the posterior half of the choroid.

The choroid was, he said, a favorite locality for the development of miliary tubercles. These bodies would vary in size from one-third to two and one-half millimeters in diameter, and they were usually deposited upon the posterior portion of the choroid, so that they might be perceived by the aid of the ophthalmoscope during life. In cases of deposit of cheesy masses in the lungs and abdomen, tubercles would not be found in the choroid. If tubercles are discovered in the choroid it was nearly certain they would be found elsewhere in the body. So far as records state, there were no subjective symptoms produced by tubercles in the choroid. Theoretically there should be distorted vision.

Dr. W. T. Montgomery asked if careful observations had been made to test the sight of patients with tubercle of the choroid.

Dr. Holmes replied that he thought not. The patients had been generally too young—as children with tubercular meningitis—or they were, if adults, too near death when the tubercles had been discovered in the eye to make careful tests of the sight very likely or even possible to be made.

The question of the relation of miliary and yellow tubercle to each other being raised by a member,

Dr. W. T. Belfield remarked that it was held by some of the later pathologists that miliary tubercle was due to the absorption of caseous matter from a deposit of this material somewhere in the body following an inflammation. The older view, still held by some, had been that the yellow is always due to a degeneration of the gray tubercle.

Dr. H. M. Lyman said he did not think those who claimed miliary tubercle was due to the infection of the system by caseous matter had proven their point. It was a plausible theory, and had some facts that might look in its favor. But that caseous matter was found in the dead body, surrounded by a plentiful crop of miliary tubercles, did not prove the point, for the cheesy substance itself might have been preceded by miliary deposits, of which it was the rapid degeneration. In that case both kinds of material would be due to one and the same cause. It was almost never possible to say positively that caseous matter deposited in the midst of a mass of inflamed tissue had not been preceded by a rapid deposit of miliary tubercle that as rapidly had gone into degeneration. Degenerative changes often went on in a diseased body very rapidly, and made parts appear very differently which had been alike, and he thought we should be cautious how we attributed one morbid condition to the effect of another.

The subject was further discussed by Dr. L. H. Horcourt, the President, and others.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 8, 1879.

Dr. J. C. Peters, President, in the Chair.

LUMBO-COLOTOMY—INTRACTABLE STRICTURE OF THE RECTUM.

Dr. J. W. Howe exhibited a patient upon whom he had performed the operation for lumbo-colotomy, four years previously, and gave the following history of the case:

Rosa Nott, aged 51, was admitted to St. Francis' Hospital, February 23, 1875. For a period of twelve years she had suffered great pain on defecation, and was compelled to use injections and cathartics to procure a movement from the bowels. Pus and blood were often mixed with the fecal matter. Two operations, the nature of which was unknown, had been performed before she came to the hospital. Upon examination, the rectum was found to be occupied

by large ridges and bands of fibrous tissue, between which were deep and irregular ulcers. The index-finger could be passed into the rectum about three inches. At this point the stricture was much smaller, and the tip of the finger could not enter. The vagina was also closed by fibrous adhesions. The patient was in constant pain. No movement could be had without the use of oil and warm water injections. Blood and mucus were always mixed with the fecal matter. The patient was very much emaciated, and unable to move about. Attempts were made to heal the ulcers and dilate the stricture, but without avail. As it was evident that the woman was sinking rapidly, the descending colon was opened by an oblique incision, four inches in length, extending from the lower border of the last rib downward and forward two inches beyond the centre of the iliac crest. The gut was reached without difficulty, though an attempt was made to distend it by injecting air or water. The edges of the wound in the intestine were united to the integument in the usual manner, and a piece of wax candle with a ligature through its centre, was inserted and fastened in the opening to prevent prolapse. Two very large and fetid evacuations took place through the false anus within six hours after the operation. The relief afforded was complete, and though an attack of erysipelas retarded the healing of the wound, recovery was complete in two months, and the patient left the hospital in excellent condition. For two years afterwards the patient suffered some inconvenience from prolapse of the gut. Small quantities of fecal matter passed through the rectum as well as through the false anus.

A period of twelve months has now elapsed without the slightest prolapse. The rectum has been completely closed, and all the fecal matter has been evacuated for the past six months through the opening in the colon. The general health of the patient is good, she is free from pain, and is able to work fourteen hours each day, making pants at fifty cents per pair.

OSTEOPHYTIC RIB.

Dr. S. Caro presented a rib, with osteophyte attached, removed from an Italian slave who died on Blackwell's Island of pneumonia of left lung. The exostotic growth was in the situation of a previous fracture of the bone, and the two circumstances appeared to be related to each other as cause and effect.

ULCERATION OF INTESTINE IN THE THIRD WEEK OF TYPHOID.

Dr. Beverley Robinson presented a specimen of intestine removed from a man who died of typhoid fever in the third week of the disease. The points of interest were the existence of intestinal lesions at that period, and without diarrhœa, also a degeneration of the muscular coats of the ileum at different points.

ARTICULAR OSTITIS—CURIOUS CURVATURE OF LOWER END OF FEMUR—AMPUTATION.

Dr. Keyes presented the lower end of the femur with the knee-joint, tibia, etc., taken by amputation from a boy of eleven years. The patient had sinuses, which had existed a long time between the hamstring tendons and above the knee in front, all leading to a movable sequestrum in the lower end of the femur. Abscesses had existed so long in this region that the customary deformity had occurred by contraction of the posterior muscles of the thigh, namely: flexion of the leg upon the thigh, as if by the customary partial backward dislocation of the knee. The knee-joint had never shown signs of inflammation, but appeared to be the seat of fibrous anchylosis.

Dr. Keyes, with Dr. Van Buren in consultation, removed the sequestrum from the lower end of the femur posteriorly. Then, recognizing that the shaft of the femur at its lower end with the involucrum were curved, so that the articular surface of the lower end of the femur looked nearly backwards, he extended the leg and cracked the involucrum, hoping thus to straighten the limb. The attempt, however, proved ineffective.

The patient did badly after his operation, and a continuance of the contraction of the hamstring muscles increased the curvature of the lower end of the femur so that amputation in the middle third was decided upon. The operation was done with long anterior flap. The patient made a good recovery.

The specimen was exhibited to show the curious effect of the constant contraction of the hamstring muscles upon the softened and inflamed bone and involucrum, at the lower end of the femur above the line of epiphyseal cartilage, which was clearly evident in the line of section of the bone, between the condyles.

The curvature of the femur was so great that the axis of the centre of the articular surfaces of the condyles was thrown backwards, nearly 45° from the natural direction. There was very little posterior dislocation of the tibia, the deformity customarily due to this dislocation having been produced by the above-mentioned posterior curvature of the femur.

Dr. Keyes alluded to an article by Volkmann (*Berliner klinische Wochenschrift*, No. 50, Dec. 14, 1874, p. 629, with woodcut, a copy of which was produced), wherein it is claimed that in cases of inflammatory disease about the knee-joint, where contracture of the posterior muscles occurred, the tibia was drawn away from the articular end of the femur, and consequently the condyles, relieved from the accustomed pressure of the tibia, grew forward in an egg-shaped manner, while the lateral ligaments became relatively posterior in the joint, making reduction mechanically impossible without rupture of both lateral ligaments.

This condition, which it was claimed obtained in all cases, was shown by Dr. Keyes's specimen to be not uniform. The continued action of the hamstring muscles is capable of twisting backwards the whole knee-joint, and with it the lower end of the femur, provided the bone be inflamed and softened above the line of the epiphyseal cartilage. No egg-shaped prolongation of the condyles forward was present in this case.

MICROSCOPIC ANATOMY OF THE HUMAN TEETH.

Dr. C. Heitzmann presented microscopic specimens of human teeth, both in normal and carious conditions, and remarked as follows: The study of the minute anatomy of the teeth was done last year by C. F. W. Bödecker, in my laboratory, and the results obtained may be considered as a new departure in odontology. Nobody ever could have doubted that a tooth is alive as long as it is in close connection with the jaws; but all former examiners have failed in demonstrating the living matter, because of the wrong method applied, viz., grinding dry teeth. Through new methods B. succeeded in discovering: (1) that the dentical canaliculi contain fibres—first seen by Tomes—which are formations of living matter; these fibres are beaded, and send numerous lateral offshoots into the basis-sub-

stance between the canaliculi, where a minute network of living matter is established, the meshes being filled with glue-giving basis-substance, infiltrated with lime salts. (2) The enamel contains fibres of living matter between the rods, and the latter themselves are pierced by a network of living matter also. Between the rods are seen narrow interstices, invariably traversed by delicate thorns, the uniting threads of living matter. (3) The cementum is fully identical with bone; its lacunæ hold protoplasm, the branching and uniting offshoots of which traverse the basis-substance, thus establishing a minute network of living matter throughout the whole basis-substance.

The process of caries of the teeth has been studied in my laboratory by Dr. Frank Abbott. The results are that caries is first a decalcification, afterwards a reduction of the tissues of the tooth, the dentine, enamel, and cementum, whereby the basis-substance is liquefied and medullary elements, the embryonal, forming bodies of the tissues simply reappear. No further new growth occurs from these elements; but they become disintegrated and replaced by a new growth of micrococci and leptothrix. These results are in full agreement with observations made by myself in avascular tissues, especially in cartilage, where the lesion, though produced by intensely irritating agents, viz., hot iron, did not lead to an inflammatory reaction, if cartilage was injured alone.

PERFORATING ULCER OF THE DUODENUM AND SUDDEN DEATH.

Dr. Loomis presented a specimen of perforating ulcer of the duodenum, removed from the body of a gentleman who died suddenly on the 21st of September, in the Chambers Street depot of elevated railroad. The Coroner gave the cause of death as heart disease. Four days after death, the body being on ice, Dr. Loomis was asked by the wife of the deceased to examine the latter and see if he was really dead. There was no doubt of death, but considerable doubt as to the cause of death. This fact was stated to the widow, and an autopsy was the result. The examination was made by Dr. Drake in presence of Drs. Loomis and G. A. Peters.

The deceased, for twenty years, had been the subject of severe attacks of gout, but rarely summoned a physician for relief. He had found that White's pills (calomel, aloes, ext. colchicum, and ipecac, each one grain) served his purpose. He never had any deformity of the joints, nor evidence of deposits within the joints. There was a slight deformity of the joint of great toe. With the foregoing exception he enjoyed good health until two years ago, when dyspeptic symptoms showed themselves. He accordingly consulted his family physician, who treated him for chronic gastric catarrh. He complained of pain in the epigastrium, especially after eating. He lost flesh quite rapidly. Last May he consulted Dr. Loomis for vertigo and palpitation. The heart was found moderately enlarged, but there were no valvular lesions. In consequence of the presence of dyspepsia, the loss of flesh, and a peculiar paleness of the skin, associated with the previous history, a diagnosis was made of gouty kidney, and the patient was recommended to spend the summer at the Hot Sulphur Springs. The urine was examined but once, and no casts nor albumen were found.

On the morning of the day of his death the patient was cheerful and ate a hearty breakfast, walking a distance of one block to the elevated road. Death appeared to take place instantly.

At the autopsy the cerebral sinuses were found engorged, the arteries at the base of the brain atheromatous and diminished in calibre, with punctate extravasations in the neighborhood. No softening anywhere; lungs were normal. The left side of the heart was enlarged, the ventricular walls thickened, and the cavity of left ventricle slightly increased. The aorta was extensively atheromatous throughout, and its thoracic portion apparently considerably dilated. The kidneys were diminished in size, capsule adherent and thickened, showing gouty lesion in its early stage. The stomach was increased in size, and filled with undigested food. Its walls were considerably thickened, especially at its pyloric extremity. Its mucous membrane was pigmented, and one or two points were evidences of recent extravasations. The pyloric orifice was somewhat diminished in size. The commencing portion of the duodenum was thickened, and about an inch from its commencement there was an ulcer about the size of a twenty-cent piece and oval in shape, and at its bottom was a button-hole slit opening into the peritoneal cavity, and giving exit to a considerable quantity of digested material. The peritoneum, in the neighborhood of the perforation, was somewhat thickened, while the surrounding mucous membrane within the duodenum was denuded. The liver was normal in size and appearance, and the spleen was slightly enlarged. The cause of death was charged to the shock which occurred at the time of rupture. In conclusion, Dr. Loomis stated that perforating ulcer of the duodenum was not common.

Dr. Peters stated that but ten cases of this lesion appear in the records of the Society.

Dr. Loomis remarked that one authority stated that but two cases of the sort were met with in thirty thousand autopsies.

Dr. Keyes asked if the patient had suffered from syphilis, and being answered in the negative, referred to the following case:

A patient suffered from symptoms of syphiloma of rectum, which finally yielded to a prolonged mixed treatment. In the mean time he began to have gastro-intestinal symptoms and intercurrent diarrhœa. For the purpose of being treated for the latter, he came from Philadelphia to this city. Immediately after arriving at the hotel he was seized with symptoms of collapse, from perforation of the gut, and died within twenty hours. He had black vomit ten or fifteen hours before death. At the autopsy the perforation was found in the upper part of the small intestine. Numerous pigmented cicatrices, throughout the small intestine, with adherent peritoneum, marked the site of previous ulcerations.

Dr. Peters referred to a case of very extensive ulceration of the colon, connected with gout. This condition had lasted for thirty years.

Dr. Loomis did not think that the perforation in his case had anything to do directly with the gouty diathesis. He supposed that the ulcer was simply the result of obstructed circulation at that point. One peculiarity of the case was the suddenness of death.

Dr. Briddon had a case which lived for twenty-four hours after perforation occurred.

Dr. Stimson presented a specimen of extra-capsular fracture of femur.

After which the Society went into Executiue Session.

A Medico-Legal Point.—Dr. Gélé asserts that the tympanic cavity of a fœtus at term is filled with a gelatinous fluid. If the child have breathed an hour or two the tympanum shall be found to contain air.—*Med. Press and Circular.*

Correspondence.

CONTINUOUS EXTENSION IN SPINAL CURVATURE—A QUESTION OF PRIORITY.

To the Editor of The Medical Record.

Dear Sir:—In the last number of your paper, in the report of the Stated Meeting of the Medical Society of the County of New York for January 27, 1879, Dr. John A. Wyeth read a paper upon "The Treatment of Spinal Curvature by Continuous Extension," and gave the history of an illustrative case. His apparatus consisted of a plaster-of-paris jacket made "in two segments which nearly came together at the point at which the lesion was situated."

Into each jacket, while it was being applied, were fastened perforated zinc plates, and in the centre of these were fastened strong iron staples, which were connected—the lower with the upper by racheted bars, which could be lengthened or shortened by a key. With such an apparatus, Dr. Wyeth states, that if extension and fixation were the indications, he thought they could be constantly maintained, etc., and, at the conclusion of the able discussion which followed, remarked that it was scarcely possible to found a dynasty with one subject, nor could he hope to establish a new principle in surgery upon a single success. With regard to the efficacy of the principle, I will say more when the proper opportunity comes for publishing the cases already treated, the question at present engaging me being one of *priority*.

I have no wish to rob Dr. Wyeth of any of the laurels which are laid at his feet as the discoverer "of a new principle in surgery;" but my object in writing to you to-day is to establish, beyond the question of a doubt, that Dr. Wyeth *was not* the first in the profession to establish this principle. The patient for whom Dr. Wyeth constructed his first splint, came "under his observation in April, 1878." Two solid plaster-of-paris jackets were applied, each consuming several weeks' time before the apparatus described above was put on; so that we may fairly deduce the latter part of May as the time for his first application of an apparatus for producing fixation and extension. This idea of combining immobility and extension in the treatment of disease of the lower part of the spine, occurred to me in January, 1878, about four months previous to Dr. Wyeth's application.

On January 10, 1878, I filed with Mr. Stohlmann, of the firm of Geo. Tiemann & Co., New York, a drawing of a plaster splint composed of two segments, one above and the other below, the seat of disease, held together by brackets composed of perforated zinc plates imbedded in the plaster and connected by racheted bridges to allow of *extension* and *fixation*. In February, 1878, I wrote out and illustrated myself, a concise essay, applying this principle of extension, fixation, and exposure, to every joint of the body, including the intervertebral articulations, and submitted it to Drs. Ellsworth Eliot, Frank Kinnicutt, and Chas. McBurney, of New York, on the 15th of that month, as a competitive essay for the College of Physicians and Surgeon's Alumni Prize. This was not awarded, as the merits of the principle were not sufficiently tested to admit of its recognition by so high an authority. In no way altered or changed, the pamphlet, for so it soon became, was placed in the hands of Tiemann & Co., the 6th of March, for publication, simply to establish priority for its principles. Experience now demonstrates this to have been a necessity, and the intention was to have given the journals articles from time to time when a sufficient number of cases were collated. This pamphlet comprises 22 pages, and is illustrated by 33 engravings, and was issued from the printer's before Dr. Wyeth began to apply the principle. It has had a large distribution, and I have the original manuscript which was submitted to the aforesaid doctors in February, and which has not been changed in the least by the printer.

From pages 2, 3, and 4, I clip the following paragraphs:

"Adjustable Brackets.—Zinc. This is used in two forms. The first is short and broad (Fig. 1), of the thickness ordinarily used under stoves, etc., so

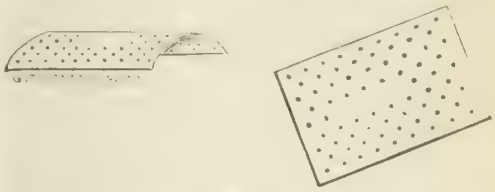


Fig. 1.

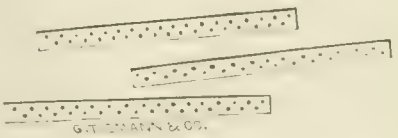


Fig. 2.

punched that the jagged edges of the perforations will be elevated above the surrounding surface, and thus allow the plastered bandage to hold it in place; and is used to form the terminal plates of the bracket, the special uses of which will be more fully detailed hereafter.

"The second form consists of long, narrow, thin strips, perforated, and is used when greater strength is required, as they hold the bandage, and are in turn held by the bandage so securely as to prevent displacement (see Fig. 2).

"Racheets.—Either of two racheets may be inserted into the bridge for purposes of extension. The more simple is that devised by the writer, and consists of two overriding flat strips, provided with slots down the middle, in which two thumb-screws are placed to hold them together, as shown in Fig. 3. They can be so gradu-

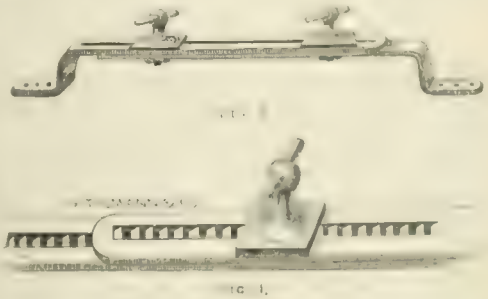


Fig. 3.

ated as to indicate the amount of extension employed, and by the removal of one of the screws a false joint is produced, which may be placed at any point along the slot.

"The second ratchet was devised by Mr. F. A. Stohlmann, and is exact without being complex. It consists of two overriding flat strips, each provided with graduated slots, one strip on one side of the slotted space being dentated and the other strip on the other. A screw, fitted with a cog sufficiently deep to engage both, is now placed in the centre, so that by simply turning the screw the bridge is either lengthened or shortened (see Fig. 4). The writer modified this by introducing a dove-tailed connection between the two strips, which allows them to slide easily upon each other and yet prevents displacement (see Fig. 5). From pages 20 and 21, the ensuing paragraphs, which entirely cover the applications of the principle Dr. Wyeth claims as original, are copied verbatim. There is a difference in the form of ratchet used for extension, but the principle for which we both contend is the same, although my paper passed into the critic's hands one year before his.

FIG. 5.

"*Second condition.*—When the lower dorsal and lumbar vertebræ are involved.

"*Requirements.*—1st, exposure; 2d, immobility; 3d, facilities for extension or retraction; 4th, relief from the weight of the parts above.

These are met by the employment of plaster-of-paris bandage and either of two brackets devised by the writer.

"The first is composed of two zinc plates, perforated, firmly riveted to and connected by a strong strip of vulcanite, provided with a ratchet, and raised above the surface in the centre (see Figs. 6 and 7).

"The second is like the first, except that two ratcheted strips are provided instead of one, and possesses the advantage over it of increased strength and the avoidance of the vertebral projection (see Fig. 8).

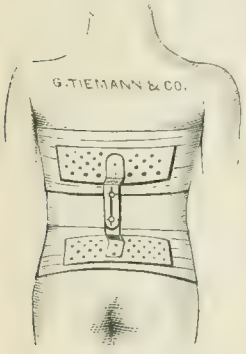


FIG. 6.

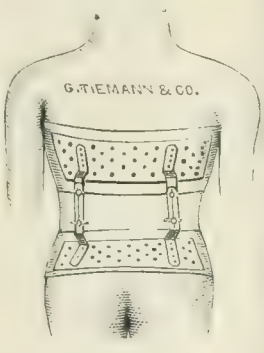


FIG. 8.

"If the deformity is great, it will be necessary to suspend the patient during the application of the plaster, which is laid around the chest above the site of the disease and around the pelvis below it.

"When it has set, the bracket is applied, secured with fresh turns of the plastered bandage, and finally the whole surface is neatly covered with bleached muslin rollers, and the degree of extension adjusted by the ratchets.

"The practice of encasing the waist in plaster from the hips to the axillæ (well known as Sayre's method) is superior to most of the braces in use on account of its *immobility* and the *ease* with which it is carried by the patient, even for a prolonged time, the weight being so well distributed.

"Its *chief disadvantages* are:

"1st. Impossibility of ascertaining the progress of the disease until the splint is removed.

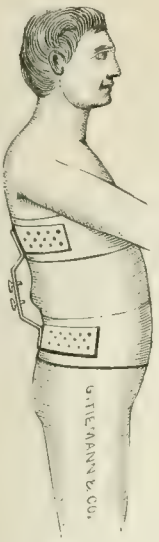


FIG. 7.

"2d. Impossibility of graduating the local pressure.

"3d. The patient's form is obliged to remain in the position it assumed during the application of the plaster until the splint is removed.

"The various braces, on the contrary, do not produce sufficient immobility without causing severe and unequal pressure upon some of the most prominent points of the trunk, but they possess the advantages of being *more easily regulated* and of allowing *inspection* of the diseased region.

"By using the plaster-of-paris bandage, and the brackets originated by the writer, we are enabled to combine the advantages of the two, viz.:

"1st. Immobility.

"2d. Exposure.

"3d. Facilities for extension or retraction, and yet avoid the disadvantages of each used singly."

These illustrations show the brackets as applied to the plaster base before being secured in position by the plaster bandage, or covered by the external layer of bleached muslin.

In conclusion, let me state that I am personally acquainted with Dr. Wyeth, and know him to be a gentleman of rare acquirements and scholarship, and feel perfectly assured, had he known the true state of the case, that he would have fully accorded me the priority I claim.

Very truly,

CHAS. F. STILLMAN, M.D.,
Curator St. Francis' Hospital, N. Y.

PLAINFIELD, N. J., Feb. 12, 1879.

FREE PHOSPHORUS INVARIABLY AND NECESSARILY CHANGED TO HYPOPHOSPHITE BEFORE ABSORPTION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—It is claimed that the chemical changes occurring to substances after entering the body cannot be followed out intelligently owing to the complication caused by the modifying influences of vital and functional action, the presence of a multitude of substances, and the changed scene of action as compared to the laboratory, rendering it impossible to note changes as they occur, all of which, as a rule, with some exceptions, is doubtless true.

One exception to this rule I believe to be the changes undergone by free phosphorus from the time of its introduction into the stomach until by absorption it leaves it. My reasons for thus excepting phosphorus during the period mentioned are:

That it is an element incapable, primarily, of chemical action, except in certain well-known directions, which change is a necessity with it as a preliminary step to further combinations.

The first change that occurs must be that it unites with something else, because, being an element, it is itself ultimate—that is, cannot be subdivided into two or more substances; it therefore exerts single elective affinity—its strongest affinity is for oxygen.

Having proceeded thus far, I will state my reasons for the conclusion heading this paper.

Solutions of phosphorus are precipitated in the stomach previous to assimilation.

Water precipitates phosphorus from its solutions when it mixes with its solvent.

Therefore phosphorus must be precipitated from its alcoholic solution by the aqueous character of the stomach secretions.

Phosphorus dissolved in ether, if given in this form, is left by the evaporation of the solvent; and the oleaginous solution, having undergone pancreatic emulsification, is chemically changed by that process to a condition which admits of union with aqueous secretions in any proportion, and as emulsification must have taken place before fats can be absorbed, the phosphorus, but sparingly soluble originally in the oil, must be precipitated when the oil is not only emulsionized, but combined with aqueous secretions at the time of assimilation; hence phosphorus, even if given in solution, reaches the condition of substance in the stomach before absorption can take place.

Phosphorus being insoluble in stomach juices is incapable of endosmosis until by chemical change it is rendered soluble.

Its natural and strongest affinity being for oxygen, an atom of phosphorus (P) unites with an atom of oxygen (O), two molecules of water from the stomach secretions (2HO) now unite with it, and the result is 2HO, PO (hypophosphorous acid); and as the free acid cannot exist in the presence of bases without union, and as such bases are always present in the stomach, this union occurs naturally, and a hypophosphite is produced, affording the first soluble condition of the phosphorus originally given—necessarily in very small proportion, from the limited quantity of phosphorus ($\frac{1}{100}$ to $\frac{1}{10}$ grain) tolerated by the patient.

During the oxydation of the phosphorus in the stomach, phosphoretted hydrogen is given off (a result always occurring during the primary oxydation of phosphorus), and this having an avidity for water, is taken up by stomach juices, and being then in a condition favorable to such action, is absorbed.

This accounts for the *constitutional* toxic action of phosphorus, evidenced by hæmatomata upon the heart, pleura, liver, kidneys, etc.—for the odor of phosphorus pervading the body of a person poisoned by phosphorus, and also for the peculiar "match-like" eructations complained of by patients when taking free phosphorus.

I am very respectfully,

R. W. GARDNER.

170 WILLIAM STREET, N. Y., Jan. 16, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 9th to February 15th, 1879.

KINSMAN, J. H., Capt. and Asst. Surgeon. His extension of leave of absence granted Dec. 23, 1878, from Headquarters, Div. of the Atlantic, further extended one month. S. O. 36, A. G. O., February 13, 1879.

LAUDERDALE, J. V., Capt. and Asst. Surgeon. To report in person to the Commanding General, Dept. of the South, for assignment to duty. S. O. 33, A. G. O., February 10, 1879.

DR. A. C. RANKIN reports (*Chicago Med. Jour. and Exam.*, Dec., 1878) a case of puerperal convulsions, attended by rupture of the uterus and recovery.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 15, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 8, 1879.	0	6	198	1	1	61	0	0
Feb. 15, 1879.	0	3	207	3	3	63	0	0

PHILADELPHIA APPOINTMENTS.—Dr. W. W. Van Valzah, late resident at the Philadelphia Hospital, has recently been appointed one of the Attending Physicians to Jefferson Medical College Hospital in the place of Dr. John B. Roberts, who resigned to take charge of the Philadelphia School of Anatomy.

Dr. Charles Baum was appointed house interne at the Pennsylvania Hospital, at the last meeting of the Board of Managers, to fill the place of Dr. Henry Middleton Fisher, whose term of service had expired.

At the meeting of the Board of Managers of the Philadelphia Asylum for the Deaf and Dumb, on Wednesday evening, Feb. 5th, Dr. J. Minis Hays, a member of the board, and assistant editor of *The American Journal of the Medical Sciences*, was elected to fill the position of Attending Physician, formerly held by the late John B. Biddle, M.D. The other candidates for the position were Dr. Samuel Ashhurst, formerly attending surgeon to the Episcopal Hospital; Dr. Wm. B. Atkinson, Permanent Secretary of the American Medical Association; and Dr. Oscar Allis, Attending Surgeon to the Presbyterian Hospital. The salary in connection with the position is some $600.

At the meeting of the Household Board of Directors of Girard College, held on Friday evening, Feb. 9th, the name of Dr. Thomas B. Reed, Attending Physician to the Presbyterian Hospital, was recommended as successor to the late Dr. J. B. Biddle, as Attending Physician to Girard College. The candidate recommended by the above board is generally elected to the position by the Board of Guardians of the City Trusts, which meets on Feb. 12th. The salary of the Attending Physician is $600. The other prominent candidates were Dr. Wm. H. Parish, Attending Obstetrician to the Philadelphia Hospital; and John J. Reese, M.D., Professor of Medical Jurisprudence and Toxicology in the Department of Law and Medicine in the University of Pennsylvania.

The last candidate who has announced himself in connection with the vacant chair of Materia Medica and Therapeutics at Jefferson Medical College, is Dr. James Darrach, of Germantown. The appointment will not be made until late in the spring.

DR. H. T. HANKS, of this city, has been elected Corresponding Member of the Gynecological Society of Boston.

SALICYLIC ACID A BAD MOUTH WASH. Dr. Buch, of St. Petersburg, finds that even a weak solution of salicylic acid is injurious to the teeth, which, after the dentifrice has been used for a short time, appear softer, and feel as though they were covered by something gritty.

Suicide of a Yellow Fever Physician. — Dr. George Grey, of Denison, Texas, who distinguished himself by professional services rendered at Holly Springs during the late epidemic, committed suicide at New Orleans on Feb. 15th, by shooting himself through the head. No reason for the act is assigned.

Bacteria in Carbuncle.—W. T. Jackman, M.R.C.S. Eng., reports (*Lancet*) two cases of carbuncle in which he found bacteria in blood drawn from each patient.

Dr. Luigi Ciniselli died last month, aged seventy-five years. He was many years chief surgeon of the hospital at Cremona, Italy. He gave great attention to and was an able advocate of the electrolytic treatment of aneurism. He was the author of many papers on this and other subjects bearing upon surgical practice.

Lallemand's Gout Specific is said to be prepared at St. Louis, Mo., after the following formula:

℞. Ext. colchici acet.,
Ext. opii aquos ää. ..... gr. xv.
Potassii iodid..... ʒ iv.
Potassæ acetat..... ʒ ij.
Aquæ destil..... f ʒ iijss.
Vini alb..... f ʒ iv.

M.—Twenty drops three times a day.—*New Remedies.*

Arsenical Poisoning and Green Eye-Shade.—A case is reported from Munich, of arsenical poisoning from wearing a *green* silk eye-shade for a long time.

For Chapped Hands.—This is excellent:

℞. Resinæ..... ʒ j.
Ceræ..... ʒ iij.
Adipis..... ʒ ij.
Zinci oxidi..... ʒ vij. M.

Harvey and His Discovery.—We have derived much pleasure in the perusal of the address made by Prof. DaCosta at the opening of the present session of Jefferson Medical College.

Dialyzed Iron in Arsenic-Poisoning. — Edward Hirschsohn, of Dorpat, has experimentally proven that pure dialyzed iron alone does not act as an antidote to arsenious acid. The addition of ammonia or magnesia to the iron causes the production of an insoluble compound of arsenic, iron, and magnesia or ammonia.

Quinia Insufflations in Pertussis.—Dr. Mannheimer claims to have cured nine cases of pertussis in from four to seven days by the use of intra-laryngeal insufflations of equal parts of *quiniæ sulph.* and *cretæ præp.*

A New Means of Arresting Post-partum Hæmorrhage.—Dr. Christie, in *Med. Press and Circular*, Sept. 4, 1877, describes a new device as follows: An india-rubber pint bag with a tube and stop-cock attached. The air is squeezed out of the bag, the cock turned, and the former is to be introduced within the cavity of the uterus. The end of the tube is then to be placed in a vessel holding tepid water, which is held two feet or more above the uterus. The cock being again turned, the bag becomes filled by atmospheric pressure, thereby overcoming the uterine intra-arterial pressure. Leaving the valve (regulated by the cock) open, as the uterus contracts the water is expelled from the bag; if the womb again relax, the bag is again enlarged by the water-pressure. Smear the outside of the bag with glycerine. For placenta prævia use cold instead of tepid water.

Test for Organic Matter in Water.—Put some of the water into a clean glass-stoppered bottle; add a little pure cane-sugar; expose, having well stoppered the bottle, to the light in a warm room. Should the water, even after a week's exposure, become turbid, it is dangerously impure for drinking; if it remain clear, it is safe. This is Heinsch's sugar-test.

Sulphurous Acid in Scarlatina—Is highly extolled by Dr. Waterman. He gave 10 to 30 drops, diluted, every 2, 3, or 4 hours, to eleven cases, ten of which recovered.

Chloral Anæsthesia in Children.—Dr. Bouchut says that a dose of grs. 35 to grs. 45, for children under three years of age, is without danger, produces sleep in half an hour and profound insensibility in one hour. This anæsthesia lasts from three to six hours, without any unpleasant consequences. This is the opinion from nine years' large experience.

Says Prof. Alonzo Clark: "As a matter of fact, two-thirds of patients sick with typhoid fever do better without than with alcoholic stimulation."

Medical Department of the University of the City of New York.—The Thirty-eighth Annual Commencement of the Medical Department of the University of the City of New York was held in the Academy of Music, Tuesday evening, February 18, 1879. The Academy was filled to overflowing with the friends of the students and the invited guests. The music was furnished by Grafulla. The exercises were opened by the reading of the Scriptures by Chancellor Crosby, and prayer by Rev. Dr. Deems. Chancellor Crosby then conferred the degree of Doctor in Medicine upon the two hundred and five members of the graduating class, after which he delivered the address to the graduating class. As usual, the Chancellor's remarks were plain and solid, and contained the following jewels:

1. "A rolling stone gathers no moss," or, "An itinerant doctor gets no practice." A restless fisherman didn't get bites, but went home at evening with an empty basket. 2. "The early bird catches the worms." If the doctor was ready on call, the people would be ready with their calls. 3. "Pleasant words are health to the bones;" which might be read: "A doctor's cheerfulness is often as good as his physic." 4. "Take care of the pennies and the pounds will take care of themselves." 5. "Industry wins the prize." 6. "Nip mischief in the bud." The address was closed by giving the graduates a few general sentiments, such as: "Yours is a profession, and not a trade. The object of a trade is to make money; the object of a profession is to bless mankind."

The Mott Prize Medals were awarded as follows: For the best dried anatomical preparation, gold medal, to W. R. Winters; for the second best, silver medal, to Gregory Iskiyan. To E. R. Boden was awarded a bronze medal for the best report of a surgical clinic. For the best examination in Pathology and Practical Medicine, the prize was awarded to J. C. McCoy. For the best examination in Materia Medica and Therapeutics, the prize was awarded to E. E. Wallace. For the best examination in Ophthalmology and Otology, the prize was awarded to William T. Smith. To W. J. Herriman was awarded the prize for the best examination in Obstetrics, and to W. Edwin Walker for the best examination on Diseases of the Nervous System. Honorable mention was made of the examinations sustained by C. M. Glenn, C. H. Brown, D. H. Wiesner, E. K. Root, C. Herzog, W. W. R. Fischer, N. H. Wilber, W. O. Bridges, G. W. Leonard, W. C. Davies, G. Voorhees, C. E. Grovesteen, H. M. Brown, F. H. Miller, and W. L. Ranney. The theses presented by M. W. Van Denburg and C. M. Brandt received honorable mention.

Original Lectures.

YELLOW FEVER—ITS ORIGIN, PROPAGATION, NATURE, AND MORBID ANATOMY.

A LECTURE DELIVERED BY SPECIAL REQUEST BEFORE THE GRADUATING CLASS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

By ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

Part I.

Gentlemen: It is not my intention to present to you in this lecture an elaborate history of yellow fever, a work for which neither my time nor my ability would suffice. The few cases of the disease that I have myself seen give me no authority to speak of it from experience. But there are certain questions relating to its origin, propagation, and nature, which an impartial critic may perhaps decide more justly than physicians who have only their personal experience to enlighten them. It is notorious that some reporters of their own observations—not only in our own day, but even in former times—have obscured the subject by confounding together yellow fever and various forms of bilious remittent fever, and notably the malignant and the hæmaturic varieties of this disease.

THE FIRST MENTION OF YELLOW FEVER.

It is unquestionable that the earliest account of yellow fever is contained in the histories of the Spanish discoveries and colonization in the West Indies. From them we learn that an epidemic of the disease decimated the Spaniards on their second expedition to St. Domingo, at the end of the fifteenth century. During the following century it was elaborately described by the physicians who witnessed its ravages in the French colonies of Guadaloupe, St. Christopher's, and others.

From these original centres it was soon carried to Mexico and the other parts of the shores of the gulf of that name, where it certainly prevailed toward the end of the seventeenth century, and various points in North America during the following century. In all these latter places, that is, upon the American continent, there is no reason to believe that yellow fever was ever seen until it was brought thither from the West Indies. In like manner it is certain that, until commerce carried it to the eastern and western coasts of South America, it was never known in any of the localities which since then it has ravaged, and in some of which it appears to have become endemic, as it certainly has at several places on the southern coast of the gulf of Mexico; but not in all: for example, it was introduced into Dutch Guiana in 1793 and in 1800, and yet subsequently, and for a period of thirty-seven years, it never invaded that province. At the end of this long period of immunity the colony suffered from a new importation of the disease, which annually thereafter visited it for nine or ten successive years, when it ceased, and for the six following years failed to occur. It was then reintroduced by an infected vessel, and spread more widely than before. In Brazil, likewise, yellow fever never occurred until it was brought in 1849 by vessels from New Orleans and the West Indies, which infected all the ports at which they touched. From thence the disease travelled inland, causing an immense mortality. On the western coast of South America yellow fever was equally unknown until 1842, when it was introduced by vessels from New Orleans; but it soon afterward became extinct, until ten years later, when it was brought to Lima, in Peru, whence it extended to Valparaiso and other ports of Chili. All of these instances of the spread of yellow fever from the Gulf of Mexico to the coast towns of South America are distinctly traceable to the gold discoveries in California, which drew thousands of emigrants from the States east of the Mississippi, most of whom were passengers on board vessels that either sailed from New Orleans, or which tarried at some one or more of the yellow fever centres of the Gulf of Mexico.

THE SEEDS OF TRANSATLANTIC EPIDEMICS IMPORTED FROM AMERICA.

The history of transatlantic epidemics of yellow fever shows that their seeds were imported from America. It was so at Cadiz as early as 1731. But the great epidemic which desolated that city and the surrounding provinces from 1800 to 1804 was still more distinctly traceable to an infected ship from Charleston. Subsequent epidemics in Spain, several of which occurred down to 1828, were as clearly due to importation. It is worthy of notice that the only portion of Europe which was thus subjected to the plague was the one of all others whose commercial relations with the West Indies were the most intimate and frequent. Not only Spain, but other places in Europe where yellow fever has prevailed, furnish similar illustrations, and among them Lisbon, where for more than a century it from time to time occurred extensively and fatally, but always as a consequence of the commerce maintained between that port and the American endemic sources of the disease. On the western coast of Africa it has again and again occurred at several points, and there alone, the remainder of that continent never having known the disease. This fact is evidently and simply to be explained by the constant intercourse of the people of the west coast with the West Indies in the interests of the slave-trade.

In North America yellow fever has occurred at such places only as were in communication with one or another of its foci in the West Indies. In Baltimore, Philadelphia, New York, Boston, and other northern ports, the limited epidemics that have occasionally occurred have all, without a single exception, been traceable to vessels or their cargoes arriving from infected ports. Even these rare and limited outbreaks of the disease have grown less frequent and less extensive in proportion to the strictness with which quarantine laws and sanitary regulations have been observed. To such a degree of efficiency have these barriers reached at the port of New York, that, although for years past there has been no time during the prevalence of yellow fever in the West Indies when there have not been cases, and sometimes many cases of it, in the quarantine hospital at Staten Island and in the infected ships at that station, there is no instance of the disease having been carried to the city by any vessels, persons, or goods that had passed quarantine.

YELLOW FEVER DOES NOT ORIGINATE OUTSIDE OF THE WEST INDIES.

In a word, not a single example can be adduced to prove the origin of yellow fever outside of the West Indies. On rare occasions it has been observed at

some of the minor ports of New England, and also in Great Britain and other parts of Northern Europe; but in every such case it was easy to designate the very vessel that brought it from the West Indies; and, although less easy to demonstrate, it is none the less certain that to a like source may be traced all of the epidemics that have ravaged our southern States and those of the South American continent. That for some of them a claim of spontaneous or idiopathic origin has been made, is well known. But, taking together the facts which prove: 1. The ordinary source of yellow fever in importation from the West Indies; 2. the fact that in no single instance can the possibility of such importation be successfully controverted; and 3. the frequent errors of diagnosis committed by physicians who have mistaken various forms of malarial fever for yellow fever—the doctrine of the primary and exclusive origin of the disease in the West Indies receives a full and complete confirmation.

THE CONDITIONS WHICH GENERATE THE DISEASE.

What, now, are the peculiar conditions which generate yellow fever in the West Indies? Long continued heat is certainly one of them, but it is not the sole nor a sufficient cause; for a higher temperature prevails in Africa and Asia, where yellow fever never existed. Neither is moisture, nor animal nor vegetable decay, nor any combination whatever of natural causes, for they all exist as abundantly elsewhere as in the West Indies, without ever generating the disease. Salt water is also essential to its production; for this fever never originates in inland localities, no matter what conditions in regard to heat, moisture, or putrefaction may coincide. These agents may generate malarial fever, but yellow fever never. In not a few instances a vessel sailing from an infected port in the West Indies has proceeded on its voyage for many days, even for several weeks, without accident, until, on opening the hatches or pumping the bilge-water from below the hold, the fever has immediately broken out. In many other cases such a vessel has sailed, it may be, from Havana to one of our own northern ports, or perhaps to Europe; she may have had some cases of the fever on board during the voyage, or, on the other hand, her crew may have remained perfectly healthy. She arrives at a healthy port in hot weather. Her crew disperse, and no one in contact with them contracts the disease. But the vessel's hatches are opened, stevedores belonging to the port unload its cargo, and presently they are all attacked with the fever, as well as the men on board the vessels lying alongside of the infected ship. It is evident that the ship itself, or something in it, but not its crew, was the cause of the outbreak, and equally evident that the morbid poison must have been brought from the port whence the ship came. It is just as certainly generated outside of the human system as that the cause of malarial fever is so, from which, however, it differs essentially in this, that it is portable in a great variety of things, including ships, merchandise, and clothing. When once introduced into a place it does not, like an aërial poison, spread rapidly and attack the population in every direction, as malaria does, but it is first developed around the spot where it first entered, and attacks those only who visit that locality, or who come into contact with fomites which have for some time remained in it. There can be no doubt, in view of the facts already stated, and of numberless corroborative ones, that the poison of yellow fever is specific; that its origin is in the islands of the Gulf of Mexico alone; that it is susceptible of being carried to distant points; and that it is as distinct from all other fever-poisons as the plants and the shells of the West Indies are from those of Pennsylvania.

The conclusions I have stated are drawn from a multitude of facts, and of themselves would be sufficient to establish the limited local origin of yellow fever and its dissemination by means of a specific poison. But the counter-proof confirms the argument. Yellow fever neither exists endemically in any other place in the world than in those mentioned, nor has it ever prevailed epidemically in any other place into which it was not introduced from its original source. At the present day we hear no more of such epidemics as, a generation or more ago, ravaged certain ports of Europe. Even sporadic cases of the disease no longer occur in them, and yet, in all respects save one, their sanitary condition is nearly the same as it was when the calamitous invasions of the fever took place. They are more populous, nearly as filthy, their commerce with the West Indies is as intimate, their climatic conditions are unchanged, and yet they are as free from yellow fever epidemics as before America was discovered. The reason of their exemption is simply that they refuse to admit vessels from infected ports until they have been purged of all sources and vehicles of the disease.

THE EFFICACY OF A RIGID QUARANTINE.

The precautions which have proved so salutary abroad have been no less effectual in this country whenever they have been honestly and thoroughly taken; and there is every reason to believe that yellow fever would never again since the civil war have entered our southern ports, if the quarantine laws had been faithfully executed. During the war and for some time afterward yellow fever ceased to appear at New Orleans; and it is certain that the seeds of the recent epidemic were introduced into that city through the neglect, ignorance, or connivance of those who were charged with the duty of protecting the country from this mortal scourge. It is equally well known that as soon as the nature of the epidemic was recognized in New Orleans, another populous seaboard town, peculiarly liable to be infected from New Orleans, resolved upon absolute non-intercourse with the City of the Plague, and maintained its isolation throughout the epidemic. In vain it was threatened with a loss of commercial relations by certain influential corporations and individuals; it preferred life to wealth, and closed its port against the carriers of the pestilence who endeavored by force or stratagem to invade its sanitary line. It was rewarded by the result, for not a single case of yellow fever occurred in that city, while its less wise and prudent sisters in Louisiana, Mississippi, and Tennessee, who received the fugitives from New Orleans, were severely scourged.

The efficacy of duly executed quarantine laws is nowhere more distinctly displayed than by their administration at the port of New York, where, it is stated, more cases of yellow fever arrive between the months of July and October than at all the other ports of the United States. "During this period there is a daily average arrival of one or two infected vessels, and yet at no time for a number of years has the yellow fever made its appearance in that city." "This statement must go side by side with the one that New York, during its summer season, is as much exposed as New Orleans during the corresponding period."

CIRCUMSTANCES INFLUENCING THE DIFFUSION AND MORTALITY OF YELLOW FEVER.

The circumstances or conditions which influence the diffusion, the grade, and the mortality of yellow fever

are peculiar, and differ from those relating to every other disease. It is well known that malarial fevers attack the same individuals year after year—the natives of the locality where they prevail as well as strangers; but yellow fever is apt to spare the natives of places where it is endemic, and very seldom attacks the same person more than once. Even in cities like our southern seaports, where the disease occurs only through importation, one attack is apt to render its subject invulnerable during subsequent epidemics. Still more than this, the natives of warm climates who go to reside in the yellow fever region are not nearly as liable to the graver forms of the disease as are the natives of colder climates; and it has long been noticed that during its epidemics the mortality is extremely great among the latter class of persons, and relatively small among the former. But neither will being a native of such a place nor a long acclimation secure an absolute immunity from the disease. Like typhus and typhoid and eruptive fevers, it is occasionally liable to attack those who have already paid tribute to it. During epidemics of an exceptional degree of violence or malignity such cases are not uncommon. Moreover, the immunity is very apt to be forfeited by natives of yellow fever localities who have resided long enough in a cool climate to undergo a certain change of constitution. On returning to their native places they are hardly less liable than original foreigners to be attacked.

THE COMPARATIVE IMMUNITY OF THE NEGRO RACE.

A remarkable difference of susceptibility to yellow fever exists between the white and colored races. Observers in the West Indies and in our Southern States, before the civil war, are agreed that the latter race are almost entirely exempt from its attacks, and several affirm that no negro from the coast of Africa was ever affected by it. Even among colored persons born in this country the liability has been comparatively small, and the type of the disease much milder than in whites. It is not without interest that the negro race enjoys a similar immunity from periodical fever also, and especially from that grade of it which, from its malignant type, has sometimes been confounded with yellow fever, while they are more liable than the whites to other epidemic diseases, such as typhus, typhoid, and eruptive fevers, and cholera, and suffer a greater mortality from them. It seems probable, therefore, that their immunity to yellow fever is innate and constitutional. But as it is well known that negroes bred in the northern portion of the Southern States are more liable to the disease, and especially to its graver forms, than those who have always lived in the seaboard towns, it seems probable that mere diversity of race, apart from climatic peculiarities, is insufficient to account for the relative insusceptibility of the southern negro to this disease. When we associate these facts with the one before mentioned, that foreigners are apt to contract the disease in proportion as they belong to cooler climates than that of the West Indies, we are led to suspect that the immunity of negroes is in some manner related to the great functional activity of their skin, which is proper to all natives of the torrid zone, but in the highest degree to the dark races, and which enables them to exhale the specific poisons of malarial and yellow fevers, while natives of cooler climates, being but feebly provided with such an eliminative faculty, fall victims to these diseases.

Such, in the briefest terms, is a history of the conditions under which yellow fever arises, but they shed no light upon the nature of its essential cause. So far as we know there is not any single climatic, meteorological, or telluric agency which is known to be peculiar to the cradle of the disease, nor any degree or combination of such visible agencies as are met with in the West Indies, that are not even more rife in thousands of places in Africa and Asia, which yellow fever never visited. In default of any demonstrable and real cause, the usual refuge of ignorance has been eagerly sought for by theorists who are not content to seem ignorant of anything. They attempt to blind themselves and us with a cloud of words which describe or define nothing, and which, when reduced to their simplest expression, read "Zymotic Poison." Upon calm reflection this phrase turns out to be little else than "words without knowledge." At the best it can only mean that a certain specific poison must be received into the system to produce yellow fever, as a certain other morbid poison must be absorbed to generate typhus, another, small-pox, and so on, a proposition which no well-informed physician can deny, but which leaves us as ignorant as ever of the specific cause of yellow fever. They neither tell us what it is, whence it proceeds, how it acts, nor wherein it differs from other morbid poisons; in fact, leave us quite as ignorant as when they undertook to instruct us.

THE GERM-ORIGIN THEORY NOT PROVEN.

A search after the organic germs which the zymotic theory calls for has been diligently made, but until recently no plausible claim to their discovery has been advanced. Since the late epidemic this has been done by Prof. J. G. Richardson, of this University, and Dr. Robert White, of the United States Marine Hospital Service. After examining specimens from yellow fever patients, dying in Louisville, Memphis, Mobile, and New Orleans, they believe they have discovered that the uriniferous tubules of the kidneys are often choked with a fungous growth, which *mechanically obstructs* the outflow of the renal secretion, and thus causes the diminution or complete suppression of urine, which constitutes such a common and fatal symptom of the disease. They also think that similar groups of fungoid spores (micrococci) frequently form in the hepatic ducts, and, by interfering with the free secretion of bile, give rise to the yellowness of the skin from which the name of yellow fever is derived. They report that the fresh blood of yellow fever patients, sealed up in tubes, and fastened to microscopic slides, so as to be readily examined with a power of 800 diameters, shows a fungous growth, differing somewhat from that developed under similar conditions in normal blood, but consider that their experiments are too few in number as yet to form the basis of any positive statement in regard to the presence of *spores* or *germs* in the circulating fluid of persons affected with this disease.

[To be continued.]

TWO CASES OF HYSTERICAL LALYNGISMUS CURED BY HYDROTHERAPEUTICS.—In the cases of two young girls, who, in addition to the other symptoms of hysteria, suffered from œsophagismus seu dysphagia spastica, Dr. Sieffermann employed all the usual remedies, including electricity, without success. He finally had recourse to the daily use of the douche, in connection with which the patients were directed to make forcible efforts to swallow. In one of the cases the spasm disappeared during the second douche, and in the other during the twelfth. The cure in both was permanent.—*Memorabilien.*

Original Communications.

ON THE USE OF JABORANDI, OR PILOCARPINE, IN THE TREATMENT OF PUERPERAL ALBUMINURIA AND CONVULSIONS.

Read before the Medical Society of the State of New York, February 5, 1879.

By FORDYCE BARKER, M.D., LL.D.

The remarkable effects produced on the system by the administration of jaborandi, or its alkaloid, pilocarpine—effects never before secured by the use of any agent known in our materia medica—naturally suggested the theory that it would prove of service in relieving the œdema and eliminating urea in albuminuria.

Experiments and clinical observations have now settled the fact beyond all question, that this agent, when administered in sufficient doses, may be relied upon to excite excessive salivation and profuse diaphoresis, and thus drain off from the system by transudation a large amount of the water of the blood. It therefore seemed especially adapted for the removal of œdema. Then it was assumed that by this transudation, urea, in large quantities, would be eliminated from the system, and thus the danger from the retention of this element in the blood would be averted. The action of this medicine in producing this transudation seems to be nearly constant and uniform, and there is a great satisfaction to the medical attendant in the confidence that he is sure of the result that he aims to secure by the use of any given agent. If this agent produces just the effects which, on theoretical grounds, he desired to accomplish, he may be tempted to rest satisfied with this action, without stopping to ask himself whether any benefit really accrues to the patient from its use.

Having had the opportunity, within the past two years, to observe clinically the effect of this agent in several cases of puerperal albuminuria, I have been led to study more carefully the action of jaborandi on the system in this class of cases. I now venture to bring before the profession the conclusions which I have formed, and ask that they may be tested by other observers. Thus we may eventually be able to determine whether it will be of service in such cases, and, what is still more important, whether it can be used with safety.

I will briefly mention the effect produced on the system by jaborandi or its alkaloid, pilocarpine, that already seems to be demonstrated beyond doubt, and then allude to some points in which writers differ in regard to the results.

If the patient be in bed, and well-covered with warm clothing, in about ten minutes after the jaborandi is taken, or in from three to five minutes after the pilocarpine has been hypodermically injected, the face, ears, and neck become deeply flushed, and soon drops of perspiration break out over the body, while at the same time the mouth waters. In a short time the perspiration rapidly increases, the sweat running down the body and soaking the clothes, while the salivation becomes profuse, oozing from the mouth, sometimes in an almost continuous stream. The sweating and salivation persist from two to four or five hours. Sometimes, if the external conditions be not favorable, the above results may be much delayed and not appear for an hour or longer, and then perhaps are brought on by brisk exercise. The quantity of saliva discharged is very great, generally from a pint to a pint and a half. There is also, in many cases, a large secretion of nasal and bronchial mucus. The pulse is always quickened, often from forty to fifty beats in a minute, and this accelerated rate continues about four hours, while at the same time the pulse is weaker. There is a depression of temperature ranging from 0.4° Fahr., to 1.4°, averaging about 0.9°. The face, which is at first flushed, becomes pallid while the sweating is active, showing that this sweating is not due to the excess of blood sent to the skin. It often produces frontal headache, sometimes with giddiness and dulness, and the sight becomes hazy, without any alteration in the size of the pupils. In many cases it causes severe pain over the pubes, with a distressing, irresistible desire to pass water, the pain at once subsiding on emptying the bladder, even if it do not contain more than one or two ounces. The jaborandi or pilocarpine does not increase the renal secretion. Chilliness is experienced after the cessation of the sweating stage, and languor and debility usually persist for some hours.

This description of the effects of this agent, chiefly borrowed from Ringer, is in accord with that of all who have reported their experiments and observations. But in some other details there is a notable difference. Bartholow states that there is an immense increase of elimination of urea by the skin, as one of the results of the administration of this remedy; but he gives no authority for the assertion, and as I have been unable to find any experiments reported, which demonstrate this to be the fact, I think we have no right to assume it to be true. In the investigations of Piliere, Stumpf, Craig, and Schwan, no urea is mentioned as having been found in the saliva or sweat. In the July number of the *American Journal of the Medical Sciences* is an article by Professor Tyson, of the University of Pennsylvania, and Dr. Bruen, Physician to the Philadelphia Hospital, in which experiments are detailed showing the effects of jaborandi in eliminating urea by the kidneys in three healthy persons, and in three cases of chronic Bright's disease. It is stated that in health the quantity of urine was slightly increased in the twenty-four hours in one case, and somewhat diminished in two cases, while the urea itself was decidedly increased in each case. In Bright's disease the urine was increased in one case, and diminished in two, while the urea was increased in two instances, and very slightly diminished in one. While these writers regard the jaborandi as useful in Bright's disease, they remark "that this increase of urea is hardly sufficient to justify us in attributing the entire benefit which follows jaborandi sweats in Bright's disease." They believe this advantage is largely due to the removal of fluid and elimination of urea by the skin.

I think with Bartholow that the action of jaborandi is paralyzant of the vaso-motor nervous system. The flushing of the skin and the increased action of the heart is doubtless due to dilatation of the arterioles. The sphygmograph demonstrates the lowering of the vascular tension.

The question we now have to consider is whether the effects just described are likely to be of service in the treatment of puerperal albuminuria, and will aid in preventing or curing puerperal convulsions. Three cases have been reported in which the patients have been apparently benefited, but in none of these is the evidence conclusive. From a study of the re-

ports of some other cases it has seemed to me evident that the action of the jaborandi was injurious and contributed to bring on a fatal result. A brief abstract of six cases of puerperal albuminuria which I saw in consultation with others, will serve to illustrate the action of the agent in this affection, and will perhaps aid us in deciding this question.

Case I.—March 5, 1877, I saw in consultation with two other physicians, Mrs. M., aged 43, then in the eighth month of her seventh pregnancy. A month previous to this visit she began to have some œdema of the face and lower extremities, which had been rapidly increasing, and at this time the œdema was so excessive that the whole areolar tissue seemed to be infiltrated. The legs, the labia, and the face were enormously swollen, pitting deeply on pressure. She complained of weakness, and was obliged to keep her bed; but she had no other symptom, such as headache, nausea, or impairment of vision. The urine was normal as to quantity, sp. gr. 1020, with no albumen or casts. She had been taking saline laxatives and diuretics, which had no effect in increasing the amount of urine or in diminishing the œdema. I suggested that half a drachm of the fluid extract of jaborandi be given three times a day. March 8th, I saw the patient a second time. The medicine had caused profuse perspiration and salivation, and the œdema was very considerably diminished. The patient was dull, sleepy, and complained of headache. Pulse, 112. The action of the jaborandi had prevented her from sleeping much during the two previous nights. The amount of urine was notably diminished, estimated at sixteen ounces for the past twenty-four hours; sp. gr. 1019. The jaborandi was then given but twice a day. March 10: Œdema decidedly greater than at the former visit, amount of urine increased in quantity; but now, for the first time, it was highly albuminous; one-fourth in the tube solidified by heat and nitric acid. The patient had no appetite, was nauseated, restless, fretful, and very nervous. The pulse was weak and rapid. She complained bitterly of the salivation and perspiration. No more jaborandi was given, but the aromatic spirits of ammonia and brandy. She also took ʒ ij. of the compound powder of jalap and five grains of calomel. March 11, 7 A.M.: The powder given yesterday had produced no effect either on the bowels or kidneys, as she had passed no urine for twelve hours. Six ounces were drawn off by the catheter, and fully seventy-five per cent. solidified when tested by heat and nitric acid. One-eighth of a grain of Clutterbuck's elaterium was then prescribed to be taken every half-hour, until it acted freely. March 12: After taking five doses of the elaterium, free catharsis began, and during the afternoon and evening she had eight large water discharges. No urine had passed except with the alvine discharges. By the catheter two ounces were drawn off, of which about twenty-five per cent. solidified. A half-ounce of the infusion of digitalis, with half a drachm of the acetate of potash, was then prescribed to be taken morning and evening, and twenty drops of the tincture of the chloride of iron three times a day. She was confined rigidly to a milk diet.

I saw her for the last time March 17th. At this time the œdema had so entirely disappeared that I could hardly convince myself that she was the same patient whom I had seen before. She was passing daily about forty-two ounces of urine, and the specimen which I saw did not contain more than five per cent. of albumen. She was taking about five pints of milk daily and was in excellent spirits, as she was certain that she had felt the movements of the child for the first time for more than two weeks. I subsequently learned from her attending physician that on the 2d of April, after a short and easy labor, she gave birth to a living but feeble child, which afterwards thrived well. The œdema and albumen had entirely disappeared four days previous to the parturition, and her convalescence was unattended by a single unpleasant symptom, except atrocious after-pains which continued nearly a week.

Case II.—The patient was a primipara, aged 19, seven and a half months pregnant. She was supposed to be in perfect health, as she had no symptoms either of nausea, headache, or œdema until her husband was awakened by the movements of the bed and by a strange sound in her breathing. On lighting the gas he was greatly alarmed to find her in convulsions. Her physician was summoned as soon as possible. Twenty grains of calomel were placed on her tongue, she was thoroughly cupped over the kidneys, and then a stimulating enema of turpentine was given. Cold applications were applied to the head, and chloroform was inhaled as soon as it could be procured. After the fifth convulsion the os uteri was found to be dilating, and delivery of a dead child was hastened by turning. She had eight convulsions before the delivery, but never was conscious from the first attack. After the delivery of the placenta there was very considerable hemorrhage, supposed to be about twenty ounces. She remained in a stupor about two hours after delivery, when she became conscious, asked what was the matter, and why a nurse whom she did not know was with her. She slept quietly for about five hours, awaking frequently to ask for water. She then, while asleep, had her ninth convulsion, and three others followed in rapid succession. A prominent obstetrician was then called in consultation, who introduced a catheter and drew off about six ounces of highly albuminous urine. By his advice a quarter of a grain of pilocarpine was then administered hypodermically. This produced its specific effects, and was repeated in six hours. She had no convulsions after the first hypodermic injection of pilocarpine. I saw her thirty hours after delivery. She was then conscious and answered some questions. But her pulse was very feeble and rapid, her respiration was labored, with loud râles, bronchial, tracheal, and nasal; the transudation from the surface was very profuse, and the nurse was incessantly occupied in wiping the saliva from the mouth and the flow from the nasal passage. She died within an hour after I saw her.

Case III.—This lady, a primipara in the seventh month of pregnancy, began to complain of headache and some impairment of vision, and her physician found some albumen in the urine. She was treated by cathartics and diuretics for about a month, with no improvement in her symptoms, but, on the contrary, the urine became progressively more albuminous and less in quantity. Her physician then decided to make a trial of jaborandi. Up to this time she had never been compelled to lie down from the time she arose in the morning until she retired about ten in the evening. A drachm of the fluid extract of jaborandi was given at three o'clock in the afternoon and at seven the following morning. It produced its most marked effects of diaphoresis and salivation, but these effects had disappeared when I saw her [illegible] of the same day. On entering the room I was struck with her cyanotic appearance and very great difficulty in breathing. The appearance of asphyxia was so striking that I suspected pulmonary thrombosis, and at once placed my ear over the region of the heart before getting a history of the case. I was surprised

to find that the sounds of the heart could only be heard at the distance of an inch to the right of the sternum; and that I could hear no respiration over the whole left chest, and only at the upper half of the right. She was lying upon the left side, and complained of increased difficulty in breathing when I turned her upon her back. On partially raising her in bed the breathing was somewhat easier. Percussion gave a very flat sound over the whole left side and at the lower half of the right. She was perfectly conscious, and in answer to our inquiries she could not recollect that she had passed any water since she went to bed at four the previous afternoon, one hour after taking the first teaspoonful of jaborandi. She objected so strenuously to the use of the catheter that we did not insist upon it, as she was evidently dying.

Did the jaborandi in this case cause an excessive transudation and rapid effusion into the pleural cavity?

Case IV.—Mrs. B. was delivered of her fourth child after a labor of two hours, with so little pain that she did not ask for chloroform, which she had inhaled in her three former labors. The accoucheur who had attended her before was out of town, and as she considered herself perfectly well, the physician who attended her in her confinement did not see her until labor came on. Four hours after the labor she was reported to have passed water freely. Nine hours after the labor she was awakened from sleep by the falling of the "blower" which the nurse had placed over the fire. She was immediately seized with convulsions, and had three very severe ones before the arrival of her physician. He immediately administered a hypodermic injection of one-third of a grain of morphia. She had no more convulsions, but slept, breathing quietly, for nearly six hours. Her physician then passed the catheter and obtained only about six ounces of urine, which was highly albuminous. More than two-thirds solidified by heat and nitric acid. He then gave a quarter of a grain of pilocarpine hypodermically with the most perfect success in exciting diaphoresis and salivation. After six hours this was repeated. One hour after, her symptoms became so alarming that I was sent for. I never witnessed so painful a scene. She was flooded by the transudation on the surface. The nurse was incessantly soaking cloths with the saliva and discharge from the nasal passages, and at the same time she presented the unmistakable symptoms of pulmonary thrombosis. I was compelled by the piteous requests of her husband and mother to remain with her an hour until her physician arrived, but she died a few moments after I left the house.

Case V.—This patient had no symptom of albuminuria previous to her eighth labor, which was very tedious and was terminated twenty-six hours after its active commencement by forceps delivery. She lost very little blood after the expulsion of placenta. She passed water freely six hours after. Then she began to suffer extremely from after-pains. A teaspoonful of paregoric was given every two hours, until she had taken three, but this had no effect in relieving the after-pains. She then had an attack of convulsions, and had five in rapid succession, without consciousness in the intervals between them. After about five hours of stupor following the last, she became conscious. The bladder was relieved by the use of the catheter, as she could not pass it voluntarily. She seemed to be doing well for two days, except that the secretion of urine was less than it should be, but two examinations failed to discover albumen. On the third day her physician discovered that it was loaded with albumen. As she had been taking all of this time active diuretics, and the bowels had been freely moved, he decided to give a drachm of the fluid extract of jaborandi, which acted most efficiently for about five hours. After the perspiration and salivation had ceased she complained of being chilly, and of headache, and she looked so badly that her physician was summoned. I saw her at nine in the evening, ten hours after she had taken the jaborandi. She was then dying, evidently from cerebral œdema and cardiac asthenia.

Case VI.—A lady thirty-six years of age, married nine months, supposed herself to be about seven months pregnant. While at church she began to suffer from severe headache and nausea, and was much alarmed to find that she saw very indistinctly. She left church, and her husband at once sent for a physician. She had been up to this time, very well, except that she had latterly been very constipated. Five grains of blue-mass were ordered, to be followed in four hours by a Seidlitz powder. This produced one very copious fluid evacuation from the bowels, but no improvement in her symptoms. On Monday morning the urine was found deficient in quantity and very dark in color, but it was not tested for albumen. She was ordered to drink freely a sweetened solution of the bitartrate of potash, and to take thirty drops of the sweet spirits of nitre every third hour. She had no appetite, was extremely nervous, and passed a very restless and disturbed night. On the following morning another physician was called in consultation. He examined the urine and found that fully three-quarters in the tube solidified when tested by heat and nitric acid. He advised that a drachm of the fluid extract of jaborandi should be given at once. Two hours after taking it, the salivation and sweating then being very profuse, she had a violent convulsion, during which the tongue was badly bitten.

During the following six hours she had five more convulsions. Labor was induced by the fingers and the use of Barnes' dilators, and delivery was expedited by version and extraction of the child, the patient being anæsthetized by sulphuric ether. Two hours after the labor she was sufficiently conscious to swallow when asked to do so, and resisted, with great nervous excitement, the attempt to pass the catheter. Immediately after this she had a seventh convulsion. When I first saw her, five hours after delivery, she was moribund, the inspiration being very short, with loud mucous *râles*, and the expiration very prolonged. She lived without marked change in these symptoms about four hours.

The question, which must naturally suggest itself to the minds of all, is whether the development of uræmic symptoms and albuminous urine in the first case, the great depression and exhaustion which followed the use of the jaborandi in the second, the serous effusion in the pleural cavity in the third, the pulmonary thrombosis in the fourth, the cerebral œdema and cardiac asthenia in the fifth, the convulsions in the sixth, or finally the fatal terminations in the second, third, fourth, fifth, and sixth cases, were not chiefly due to the effect of the jaborandi on the nervous system and its modifications of the constituents of the blood? Might not all the good effects sought for in the use of the jaborandi been attained by other agents at less expense to the vital powers and less disturbance of the organs of nutrition? Have not many of us seen cases in which the symptoms have been more alarming and dangerous, except those that we may on reasonable grounds attribute to the jaborandi, which have eventually recov-

ered? I beg to give, in striking and suggestive contrast to these cases, the brief abstract of the report of one which occurred in the Colored Hospital, New York, in the service of Dr. S. Whitall, and is published in the Hospital Gazette, December 12, 1878.

CASE VII.—The patient, aged twenty-two, single, primipara, had, on admission to the hospital, headache, dimness of vision, vertigo, œdema of the face and lower extremities, and albumen and casts in the urine. She was treated by gentle purges and a diuretic mixture, the infusion of digitalis and acetate of potash. On the morning of the 31st of August, 1878, she was delivered of twins, one living and one dead. In the afternoon she became comatose; pulse, 120; respiration, 26; temperature, 103° F.; urine, specific gravity, 1008, of which ninety per cent. was albumen. In the morning she had a convulsion. Three drops of croton oil were then given, and the same evening she was bled, eight ounces being taken from the arm. Sept. 1st: Bowels moved freely; breathing, labored; pulse, 150; respiration, 60; temperature, 105.4° F. She was then put in a cold pack until the temperature should fall, and one drachm of brandy was given every hour. Sept. 4th: She had no headache or other uræmic manifestations. On the 8th she was convalescent; pulse, 84; respiration, 24; temperature, 99.4° F.; and the report states that mother and child, a few weeks after, were discharged in good condition.

Would the result have been the same if after the convulsion, when she was comatose, with a very rapid pulse and high temperature, secreting urine ninety per cent. of which was albumen, an enema of jaborandi or a hypodermic injection of pilocarpine had been relied upon for the relief of her symptoms instead of the croton oil and venesection?

The limit of time assigned to me will not permit further discussion of the subject, and I will conclude by expressing my conviction that the utility of jaborandi in the treatment of puerperal albuminuria is more than doubtful, and that, after puerperal convulsions, its depressing influence and action, which is continuous and exhausting, prevents sleep and the repose of the nervous system, and thus renders it in these cases an unsafe and dangerous remedy.

SOME CASES OF URETHRAL SURGERY.

By THOMAS R. BROWN, M.D.,

PROF. CLINICAL AND OPERATIVE SURGERY AND DISEASES OF THE GENITO URINARY ORGANS, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE, MD.

(Read before the Surgical Society of Baltimore.)

CERTAIN noteworthy instances have occurred to me in urethral surgery, where unexpected, and, if we regard the text-books as authority, unusual results have followed practice. These have been numerous; and rather than undertake to recite the whole series, it will accomplish the purpose to narrate one or more of each kind as types.

CASE I.—Mr. C., aged 30, single, occupation farmer, was brought to me February 12, 1878, with a history of having contracted gonorrhœa about two years before. This was slow in getting well. Since the true gonorrhœal discharge ceased he has been annoyed by unpleasant sensations along the urethra, chiefly at a point about four inches from the meatus. These were present during micturition especially, but were more or less constant, associated with a slight gleety discharge. Combined with these was a "movement" up and down, as he styled it, of the left testicle. This went on day and night with short intervals, and had become so distressing as to depress his spirits and almost completely unfit him for work or for any of the social enjoyments of life. Whilst handling the scrotum this movement could be distinctly seen and felt. By means of the urethrometer a stricture of large calibre was easily made out at the point where the irritation was chiefly complained of—four inches from the meatus. The latter was also small. The easy play of the instrument, without urethral distention, expanded to 40 F. both before and behind the contraction, called for this—40 F.—as the normal calibre. To this size both the meatus and distal stricture were raised with Otis's urethrotome and a 40 F. steel sound was passed easily into the bladder. No anæsthetic was used, and the pain was slight. The patient was kept in bed for a day or two, and, with the exception of the after-passage of the proper sound, and an occasional astringent injection, no other treatment was instituted. Greatly to his comfort, all the disagreeable symptoms were relieved. He called upon me several months after the operation, in fine spirits, stating that the movement was very slight, only now and then, and that he felt as if a great load had been taken from him. He was an altogether different man; and I can safely assert, that it has seldom fallen to my lot to have seen as great happiness produced by any surgical procedure as was the case here.

CASE II.—Mr. C., aged 18, a resident of the Eastern Shore of Maryland, was introduced to me by my friend Dr. Henry Salzer, of this place. When I saw him he was suffering greatly from retention, which began fifteen hours before, while making a visit to the city.

Some years ago he contracted gonorrhœa, which soon got well. Before that he had had no trouble with his water. Soon after his attack his urine dribbled away from him at times; at other times the stream was small, and was always ejected with pain and considerable effort. His meatus was very narrow. Silver and gum catheters were successively introduced, but could not be passed beyond a close contraction in the membranous urethra. In consequence of his great sufferings instrumentation was not continued long, and supra-pubic aspiration of the bladder was practised, which afforded instant relief. (In another place I have urged the *great superiority* of this mode of practice over that usually accepted as the right one—prolonged attempts to enter the bladder per *viam naturalem.*) The aspiration was practised at 2 P.M. He was put to bed and a dose of morphia given. When visited by me at 7 P.M., his previous distress had returned, with great distention of bladder. Ether, carried to complete relaxation, was given, and a double [illegible] after a short delay, clearly due to spasm at the membranous urethra—was passed into the bladder. This was retained from Thursday to Saturday noon, at which time a careful exploration was made with the urethrometer, finding nothing but the contracted meatus above alluded to. The normal calibre was 32 F. To this the meatus was cut, and a steel sound of that size passed into the bladder without detecting the least resistance at any point.

A sharp attack of urethral fever, characterized by rigor, high temperature, at one time reaching 105°, vomiting, anorexia, and decided jaundice, despite the use of quinine and morphia, succeeded the operation. The fever ended in sweat. After its subsidence the 32 F. sound was inserted on alternate days until bleeding

ceased. The patient returned to his home, and from that day to when last heard from, nearly two years after the operation, was perfectly well.

Case III.—Mr. G., married, age 33, of short, compact physique, looking the very picture of health, was brought to my office by Dr. Samuel Earle, of Centreville, Queen Anne County, with a history of retention some days before. On account of close obstructions at the membranous urethra, his urine could not be drawn off. The retention was finally relieved by fomentations to hypogastrium, morphia internally, and hot hip-baths, fourteen hours after the trouble began. Patient stated that he had had many cases of gonorrhœa, the last one eight years ago; all of these were hard to cure. For the past seven years he had observed his stream of urine getting smaller until, at the time of consulting me, it was discharged in drops or no larger than a thread. A No. 8 A. steel passed with some difficulty through the membranous urethra, where for a time it was held, and, after having entered, was forcibly squeezed. His urethra was sensitive, and did not bear much handling. As is usual with me, before any urethral or other operation, the urine was examined and found to be healthy. Two days after the examination he was placed under ether, and the urethra explored with the urethrometer; Its calibre was 30 F. While the instrument was withdrawn a decided resistance was met with just in front of bulb three inches from the meatus, one-half inch from the meatus and at the latter point. The contractions at and near the meatus were close, the others were of large calibre; all were divided so as to admit the easy passage of a 30 F. sound to bladder. In the membranous urethra, where all the trouble was found at the time of the first examination with a No. 8, there was no stricture.

Smart bleeding followed, which was easily controlled. Quinine and morphia were prescribed, patient placed in bed, and ordered a bland diet. The suggested after-passage of sound was neglected partly, and, on re-examination six months after, showed slight recontraction, which was divided. Since the latter occurrence he has continued well, passing a large stream, and without any recurrence of retention. During erection he has a slight curvature.

Case IV.—Mr. H., married, without offspring; is of a tall, spare figure; age about 36, and in all respects looking the typical dyspeptic; was brought to my office by his family physician, Dr. Salzer, October 12, 1878, 11 A.M., suffering from retention. He had passed the night in great suffering, vainly endeavoring to empty the bladder. A silver catheter, with a long curve, was introduced, and at first completely stopped at membranous urethra. The point of the instrument was gently, but continuously pressed against the resistance, and in a few moments glided into the bladder, permitting the escape of about one quart of urine. I found upon inquiry that for the past eight years he had been a great sufferer, and his appearance fully sustained his assertion. He looked like a man who had suffered much pain. His troubles included an obstinate dyspepsia, impairment of sexual powers, without seminal escape during congress, difficult micturition, with frequent attacks of retention. The urine was loaded with the octahedra crystals of oxalate of lime, a thick, ropy mucus, with an abundance of spheroidal cells and of shreds. There was neither albumen nor casts. When allowed to stand, a very thick precipitate (white) formed, and the secretion soon became offensive. For all of these he had undergone a prolonged course of treatment, general and local: the latter included bladder injections prompted by a theory of cystitis, no doubt. Besides all these, he had catheterized himself occasionally with a view of preventing a recurrence of the retention, which he dreaded; notwithstanding, he found no relief. He denied ever having had gonorrhœa, but confessed to inordinate masturbation in his youth. He used, either in chewing or smoking, tobacco immoderately. He was subject to cold feet and hands all the time. His appetite was capricious; his bowels were irregular, and sleep more or less disturbed. None of these could be traced to any business complications. Finding his meatus contracted to a mere pin-point, and him disposed to avail himself of any reasonable source of relief, I recommended an operation, postponing further examination of the urethra to that time—this was appointed for four (4) o'clock, five hours after the withdrawal of his urine. When I reached his dwelling at that hour, I found him in great agony, pacing the floor and complaining that his bladder was very much distended.

In passing I may be permitted to note, what may have occurred to other surgeons, the very rapid manner in which a bladder refills after one of these attacks of retention. The viscus, being filled to its utmost capacity, no longer receives any addition; and it would seem, if no vicarious action take place, as if the secretion really welled up behind, waiting to descend as soon as the reservoir was emptied.

Mr. H. was immediately etherized. The urethrometer then showed the normal calibre to be 34 millimetres. A stricture of large calibre was detected at two and a half inches from the meatus; the latter, as just stated, was exceedingly small. Both of these were divided to full size—34 F., and a proper sound introduced into the bladder. The accumulated urine was withdrawn in large quantity through a catheter. In consequence of the element of spasm in this case, contrary to my almost invariable practice, I tied in a soft gum-catheter. The latter was allowed to remain until the next day, when it was found besmeared from beginning to end with thick, ropy mucus, such as he was in the habit of seeing. The after-treatment was in a measure interfered with by his susceptibility to urethral fever, which would follow the introduction of the sound. I have omitted to mention that certain symptoms suggested a search for stone, which was not found. In one instance they were clearly due to an attack of pyelitis, which is quite capable of producing symptoms like those due to a calculus. During my attendance his urine cleared up, no retention occurred, and my patient was immensely improved. This improvement has gone on to this time, and when he called upon me a few evenings since, he announced himself as afraid that it was all "too good to last." His wife assured me that during their married life of two years he had not passed such urine as since the operation, while he affirmed the same for the last eight years.

Case V.—Jno. C., age 40, single, in good health; occupation, shoemaker; applied at my clinic in September, 1878, for relief of urethral stricture, with dribbling of urine, etc., etc. He gave the history of a case of gonorrhœa eleven years ago, and of malarial fever during his service in the late war. These constituted about all his troubles for many years. The gonorrhœa was succeeded by difficult micturition and a growing diminution in the size of his stream. This was followed by perineal fistula. Eight years ago, while in Philadelphia, he had retention, and while suffering from this went to the hospital and secured the attendance of a well-known surgeon.

He gives an account of the surgeon's unsuccessful

attempt to pass a catheter, failing in which, he performed perineal section, and combined with the major operation division of the fistula. Patient remained in hospital four months, and in about six months his condition was as bad as ever. On October 22, 1878, after stretching the meatus and the first two inches of the urethra, for the purpose of getting the urethrometer in, the latter was passed to the bulb, and the normal calibre found to be 40. The only resistance found was at a point two inches from the meatus. The whole of this space barely admitted the Thompson. The meatus and other strictures were divided to 40 F., and a sound of this size passed into the bladder. Not the least sign of stricture in membranous urethra. After this he underwent the usual after-treatment, and left the hospital perfectly well. (Patient exhibited and examined.)

Case VI.—Mr. R., of Virginia, age 26, Hebrew; presented with the following history: Gonorrhœa three and a half years ago, which lasted a couple of months. During this time he stated that he had used every kind of medicine, internally and externally, which an assortment of doctors could suggest. A gleety discharge has continued from that time to the date of visiting me (June 2, 1878). His chief complaint was a fistula in the left half of the scrotum, well back towards the perineum, through which a portion of his urine was discharged. It appeared at first some five months previously, without any premonition; his first intimation of anything wrong was the discovery of something wet running down his thighs. At the next passage, while holding the scrotum in his hand, he observed that the urine ran into it. He sought medical advice, and his physician, finding a small opening, cauterized it. This, for some reason or another, as there was not the least trouble in making water, was followed by the use of catheters and sounds, of which the patient owned a great variety, none larger than No. 12 A. After this the fistula seemed to close, but reopened May 25, 1878, in much the same way as before, and again discharged urine. The urethra measured 37 F., and the urethrometer revealed a stricture two and a half inches from the meatus, which measured 25 F. As is the case with the many Hebrews I have met with, his meatus was of the same size as the urethra. The stricture was divided to 37, under chloroform, and a sound measuring 37 F. passed. For two weeks the usual after-treatment was kept up, and the patient permitted to return home. This was all the treatment, and under this the fistula closed. The gleety discharge, which was probably produced in the tract of the fistula, ceased.

Case VII.—Mr. X. This needs no further comment than that it belongs to a class of cases which it is intended to represent—cases of gleet depending upon stricture of large calibre, which, do what you will, are apt to continue, unless the strictures are divided.

Case VIII.—Mr. J., æt. 52, married; of large, muscular frame, and, with the exception of urethral trouble, was well. Ten years ago he contracted gonorrhœa; one year ago he commenced to have some pain and difficulty in making water.

About November 1, 1878, he appeared at my clinic with symptoms of stricture, the stream of urine at best being no larger than a "darning-needle," and generally it came away in drops, associated with straining. The urethrometric examinations showed normal calibre to be 35 F., and contractions at three different points anterior to bulb. These were divided completely, hoping that the obstruction in the deep urethra would disappear; but such was not the result. I declined to render further service to him as an out-patient, owing to the seat of posterior strictures, and urged upon him to enter the hospital. He soon after was admitted to the City Hospital of the College of Physicians and Surgeons, and followed a tonic course of treatment. From time to time attempts were made to introduce one or another kind of instrument into bladder, but all failed, owing to an impassable contraction, or rather an inaccessible opening in the membranous urethra, until December 9th. This was accomplished with the small filiform adjustment that screws to Holt's instrument. This was allowed to remain for some hours, when it was removed on account of pain. Its removal allowed a freer flow of urine than he had had for one year. At 1 P.M., December 10th, heart and kidneys having been previously examined and found all right, he was given chloroform, and the urethrotome (Otis's), raised to 35 F., was made to traverse the anterior strictures, to make sure of their complete division. The persistence of stricture in the urethral curve after this, with the patient thoroughly anæsthetized, confirmed the previous suspicions of real organic membranous stricture. The same filiform already referred to was screwed to Holt's instrument, but after careful manipulation was withdrawn with the guide doubled. My conviction as to closeness of lowermost stricture, as well as to the serious risks of internal urethrotomy in this part of the urethra, suggested, as the best mode of relief, perineal section, using Gouley's grooved catheter as far as it would go, which was to a point just behind the union of scrotum and perineum. This was cut down upon and withdrawn, preferring to encounter for the rest of the work all the objections of section without a guide, because of false passages. With no more than the usual difficulty, the stricture anterior to prostate was found and divided upon a director. The band was narrow. The common female catheter, the same that I have used on previous similar occasions, was passed along a perfectly smooth channel towards the bladder. It was inserted slowly and carefully, using at the same time a stylet for the purpose of removing clots. The catheter having passed within the lips of the wound and beyond the easy reach of my fingers, much for the sake of giving myself rest from a most fatiguing position, I stepped to the instrument shelf, near the table, to get a pair of dressing-forceps. When I returned, in the course of a minute, I was amazed to find that the catheter could not be seen or touched. Believing it scarcely possible for it to have really entered the bladder, I had the operating-table and floor carefully examined and every instrument collected and counted. The catheter was not to be found. The stone-searcher was introduced, and at once struck the missing instrument, apparently lying crosswise in the bladder.

Forceps of different kinds were used, but could not secure the catheter. Median incision of the prostate was performed with the hope of getting it with my urethral forceps and finger combined. An enlarged prostate made it impossible for me to pass the latter farther than the apex of the gland. By this time the patient's condition began to show signs of failure from prolonged anæsthesia—two and a half hours. His expression was bad, pulse small and intermittent, gagging and vomiting constant. It was deemed best to delay further attempts to extract the foreign body, considering that its presence was not likely to inflict as great damage as prolonging the anæsthesia. On account of bleeding, after the perineal crutch was applied—the value of which, as a means of controlling

hemorrhage at this point, can scarcely be exaggerated—and the limbs were tied tightly together, he was put to bed. The nausea with green vomit kept up until midnight, and returned at intervals for several hours afterwards, despite remedies. He slept little during the night, on account of this symptom. There was at no time any vesical tenesmus. The urine passed was ammoniacal, due no doubt to previous condition, as he never, I may say, at any time entirely emptied his bladder within the last year. His pulse the next morning was 120 and temperature 100° F. At 11 A.M., aided by my colleague, Prof. Latimer, a second attempt was made to seize the catheter and withdraw it, after enlarging the prostatic opening, but without success.

Stimulants were given before the chloroform, but the condition of the patient was such as soon to compel a discontinuance of our efforts. There was no difficulty in feeling the instrument, but it could not be engaged. The bladder was unusually spacious. Under all the circumstances, it was concluded to be best to await further developments before having recourse to any of the many methods that might be suggested for such a case. His condition at the time of writing is excellent, there being not a single symptom present to indicate the presence of this body in his bladder. His urine is passed in large quantities through the perineal opening, without the least pain or effort.

An explanation of this curious occurrence is difficult. The sudden disappearance of the catheter surprised me beyond description, and, as stated in the text, it was not until after a careful search for it among the other instruments, and the final finding of it in the bladder, that I was convinced of its whereabouts. I do not think that I could have pushed it away with the stylet, for the reasons apparent. As an aid to the solution, we can recall the violent gagging that went on continually, with its alternate compression and expansion of the whole abdominal wall, including hypogastrium. (I propose to test this theory upon the dead subject.) The nearest that I can come to an explanation is that the catheter, having once entered the urethra fairly, was, by means of a sort of suction movement, aided by collateral muscular action, drawn into the viscus. The further history of the case will be presented when it is completed.*

Summary.—Case I. is a representative of a class of cases in which stricture of large calibre causes constant spasm of a distant muscle with distressing "motion" of testicle, so claimed because the latter was relieved by treatment of the former.

Cases II. and III. represent a very large number, in my experience, of cases in which from the symptoms the *real* disease might be referred to the membranous urethra; but the latter proved to be consecutive and truly spasmodic, depending upon anterior organic contractions, by its entire disappearance after the complete division of the coarctations in front. As stated by me in my address before the Maryland State Faculty, the number of such cases I have met with is so large as to make me very sceptical as to the alleged frequency of membranous strictures. The whole surroundings are so deceptive that much caution is required before any operation is undertaken, lest, instead of cutting into a genuine stricture, we may be cutting a "spasm."

Case V. seems to be a case of this kind, in which an eminent surgeon, by overlooking the element of reflex action, judging from all the collated testimony, did perineal section because *there* was the point through which no instrument could be passed, and because, by our very defective methods of examination generally in use for the detection of stricture, he could find no trouble in front.

Case IV. is typical of another class of cases, in which, according to eminent authority, serious disease—local and general—seemingly can be produced by a contracted meatus, and a stricture of large calibre, so claimed for the reason that the patient entirely recovered after their division.

Case VI.—This is where a stricture of large calibre—large enough to permit the flow of a large stream of urine—was able to produce a fistula which would not close until after the strictured point was raised to the size of the rest of the urethra.

Case VII. belongs to a class of cases in my hands not nearly so large as in others, where a gleet has been cured by division of large strictures and contracted meatus.

Case VIII. needs no additional comment besides that contained in the notes.

* Since submitting the manuscript, Mr. J. has died. The nausea and vomiting which began on the operating table did not entirely pass away until just before his death (11 A.M., Dec. 18th); with the exception of one slight attack of retention and an increasingly ammoniacal urine, there were no symptoms pointing to the foreign body in the bladder. His urine was passed in large quantities, and almost invariably without pain. A severe attack of cervical neuralgia, complete anorexia, insomnia, and slough of perineal opening helped the fatal issue. It does not seem that the catheter in the bladder was at all responsible. The prolonged vomiting from the chloroform did the most.

GELSEMINUM FOR HECTIC.

By EDGAR HOLDEN, M.D.,

NEWARK, N. J.

It is by no means a new or Hahnemanian doctrine that special symptoms may be treated without regard to the essence of the disease; for whatever books may have taught, teachers and pupils alike have been compelled to give heed at the bedside to devices and remedies for the arrest and control of one of the symptoms of consumption, viz., hectic, the harassing chill, the diurnal fever which exhaust the patient and try the courage of the physician.

Fortunately it is not always a prominent symptom, but it is almost always sure to occur sooner or later in the course of the disease, and often so persistently as to destroy entirely the patient's hopefulness and courage.

Pollock says that of 1,200 cases fifty per cent. had hectic on admission to the hospital, and in the cases studied by Louis, a majority had rigors and fever on admission. In twenty per cent. it persisted in spite of remedies from the beginning to the end. In sixty per cent. it began in the second stage, but perspiration followed the fever in only ten per cent. of those who suffered from the chills. His treatment seems to have been simply by the febrifuges then in vogue.

It is somewhat interesting to note the remedies of the past in this matter.

Thus Poterius advocated tin, antimony, and nitrate of potash; Reid, nitre and tartar emetic; Sydenham, infusion of rhubarb in beer; Galen, vinegar and water; Orban (Thompson's Materia Medica), the same, with alum and sulphate of iron.

Digitalis, opium, etc., are familiar, and as homœopathic physicians have laid claim to some success in this matter it may be of interest to enumerate their remedies.

Inquiry of several physicians prominent for their adaptation of experience and common sense to their

practice, in spite of dogmas or favorite tenets, has resulted in replies equally courteous and plausible.

Cinchona and its alkaloids predominate. Sulphuric, nitric, and phosphoric acids; iodine, arsenic, and carbonate of lime, with the usual hygienic measures, are resorted to according to the phase of the disease and the condition of the patient.

Not to elaborate this part of the subject it will repay any thoughtful mind to ask the question, What is the immediate cause of the phenomenon? The most prevalent opinion is probably, aggressive, local inflammation. With many, and perhaps the more eminent in the profession, it is ascribed to the absorption and circulation of pyogenic matter. This is the opinion of Ruehle in his recent masterly exposition of the whole subject of phthisis and tuberculosis.

These, however, are not wholly satisfactory even to their advocates; because not fully explaining the phenomena; and after all, would not the statement that irritation is present, and *par excellence* irritation of the ganglionic system, be more adequate and yet in no wise conflict with the opinions expressed?

There is to my mind so clear a relation between the irritative chill of neurasthenia or fright or indigestion, the chill of inflammation, which is of necessity a prodroma of fever, and the chill from septic absorption which also necessitates the idea of fever, that it appears singular that it should ever be overlooked. In all, the element is "irritation," and irritation of a special system of nerves. In the two latter our attention is so soon absorbed by the disease to be counteracted that the first exhibition of the rebellion of the system is forgotten.

Now whether in phthisis the source of immediate irritation is pyogenic absorption, persistent inflammation, profuse exudation of albuminous matter, or the mere presence of the unabsorbed products of slow inflammatory action, or perhaps some peculiar condition accompanying caseous degeneration, the essence of the phenomenon is the same, viz., irritation.

By this and similar process of reasoning I have been led to ask to what extent the remedies thus far advocated have power to reach this, and have been surprised to find that they have analogous action under other circumstances, although here used empirically; and have asked further whether there be not some better and more philosophical deduction in the way of remedy. The answer is the title of this article.

The preparations of gelseminum have been steadily growing in favor for several years, and from an extended experience with them, partly upon theoretical and partly upon inferential grounds, I was led to try them in cases of hectic, which had resisted other well-known remedies until its pre-eminence has become so conclusive as to suggest its recommendation to the profession. Four years ago, in experimenting with it, and testing its action on the heart and pulse with the sphygmograph,* I observed that the number of respirations was reduced before its toxic influence was manifested. Several deaths from over-doses, recorded in the journals, showed an action upon the respiratory centres similar to that of curare or woorara. Practical experience, moreover, with it, in small doses, has long shown its influence upon circulation and its sedative effect in certain neuralgias.

Finally, a writer in the *Lancet* for September of the current year collates the accounts of death from the drug in poisonous doses, and in the summing up shows that sedation and finally paralysis of the respiratory centres has been constantly present.

* Prize Essay, p. 150.

Now from these facts the inference has appeared a correct one that it should act favorably in the treatment of a respiratory affection characterized by irritation, and having its seat and origin in the pulmonary tissues.

In a very large number of cases it has not failed, and without giving them in detail it will probably suffice to say that I have in prescribing it, even after the failure of favorite and well-known remedies, acquired confidence in it, and have found that in doses of two drops of fluid extr., or 10 to 12 of the tincture every two hours, it will, in most instances, within forty-eight hours arrest the chill, moderate the cough, and allay the fever. The period of administration, however, is not always so short. It may be used continuously if necessary to maintain sedation, and without interference with other medicines or effect upon digestion or the excretions. It should be added that exceptions are likely to occur in cases with mesenteric complication and colliquative diarrhœa, and while not contraindicated, it may sometimes disappoint expectations.

Reports of Hospitals.

THE EPISCOPAL HOSPITAL, PHILADELPHIA.

Notes of Practice and Peculiarities of Treatment.

(Prepared for The Medical Record.)

TYPHOID FEVER.

There have been a number of cases of this disease in the wards within the past six months, but treatment has been so successful that but one death has occurred. The patient is maintained upon a soft diet. Dr. William H. Bennett reduces the temperature and strengthens the heart by fifteen-drop doses of the tincture of digitalis, and two grains of quinia, given every three hours. Stimulants are only employed in the severer cases. Dr. Louis Starr controls excessive diarrhœa by injections containing fifteen drops of laudanum and f. ʒ ss. of starch. Dilute muriatic acid is given in fifteen-drop doses every three hours, and in the second week of the disease five drops of turpentine are given every three hours. Hemorrhage from the bowels is controlled by the internal use of ergot and the local application of ice (to the abdomen). Dr. J. Anders, the resident physician, in the absence of the attending physician last summer, treated a number of cases in the second week of the disease with one-fourth grain doses of the nitrate of silver, repeated every three hours, with apparently negative results.

ACUTE ARTICULAR RHEUMATISM

Is treated chiefly with alkalies and the iodide of potassium. Salicylic acid has been employed, but the salicylate of soda is considered preferable to it.

COUGH.

Numerous trials have been made in the wards, by Dr. Bennett, of Dr. J. Milner Fothergill's boasted cough mixture, from the use of which he claims such excellent clinical results, viz.:

℞. Acid hydrobrom..... gtt. xx.
Ex. scillæ ..... ʒ ss.
Chloroformi spts..... f. ʒ ss.
M.
S. Every three hours.

with but indifferent results. The experience of the attending physicians has been that it does not at all take the place of morphia, as is claimed by Dr. Fothergill.

PHTHISIS.

Dr. Starr has lately employed the phosphates very generally in the advanced stages of this disease, and with very excellent results, using such preparations as the syrup of the hypophosphites, the vitalized phosphates, etc., etc.

DELIRIUM TREMENS.

A case of this disease has been treated advantageously with twenty-grain doses of the bromide of potassium every two hours, and forty grains of chloral hydrate at bed-time, to be followed six hours later, if necessary, by a twenty-grain dose of the hydrate.

PNEUMONIA.

Quinia is given daily in quantities ranging from 12 to 15 grains in the course of the twenty-four hours. The diet consists principally of milk punch. The circulation is kept up by generous doses of the tincture of digitalis.

THE VOMITING OF PREGNANCY.

A good prescription is, viz.:

℞. Cerii oxalat..... gr. ½.
Ipecacuanhæ..... gr. i.
Creasoti..... gtt. ij.
M.
S. To be taken every hour.

CHOREA.

Dr. Wharton Sinkler has controlled the twitchings of patients with this disease by the continued hypodermic injection of from three to five drops of Fowler's solution. In some of the instances the injections were followed by a good deal of local irritation.

HÆMOPTYSIS.

Dr. Starr has injected hypodermically from two to three drops of the fluid extract of ergot in this condition with most excellent effects, always rapidly stopping the hemorrhage.

LOCAL RHEUMATISM AND SCIATICA.

In Dr. Bennett's hands hypodermic injections of one-eightieth of a grain of atropia and one-eighth of a grain of morphia directly into the substance of the affected muscle have always afforded immediate relief, although this relief, as a usual thing, is only temporary. In cases of sciatica Dr. Starr has injected the one-eightieth of a grain of atropia into the tissues directly over the track of the painful nerve with manifest benefit. Dr. Wharton Sinkler, in several cases of local rheumatism, has tried the local injection of ether—gtt. x. in water. Though this injection generally relieves the pain, yet it is of itself always a most painful operation, owing, no doubt, to the local irritation caused by the ether.

THE ASSIMILATION OF COD-LIVER OIL.

Some months ago Dr. Wm. H. Bennett instituted a series of experiments regarding the assimilation of cod-liver oil by the system. The stools of a number of patients, placed upon the daily use of this article, were carefully examined, and it was found that in the majority of cases these stools were oily, showing that the cod-liver oil had simply passed through the alimentary canal without absorption. Where the stools were oily, the patients appeared to have derived no benefit from the use of the oil; but in the few cases where the stools were not oily, and where the oil had consequently been absorbed, the patients had grown fat.

Quite recently Dr. D. J. Milton Miller, the medical resident, has conducted a second series of experiments of the same nature, and has obtained like results.

INTERMITTENT FEVER.

Dr. Bennett has lately tried the carbonic acid treatment of the paroxysms, recommended by a surgeon in the British navy, with entirely negative results. This treatment consists in the administration of twenty grains of tartaric acid and thirty grains of the bicarbonate of sodium every half hour for two hours previous to the appearance of the paroxysms.

CHRONIC LEAD-POISONING.

The patient was under Dr. Bennett's care for a long time, with the most marked symptoms of the disease, before any insight could be gained into the cause of the malady. It was at last discovered that the disease first manifested itself when he was cleaning out some leaden sugar moulds. When seen the patient exhibited great debility and a well-marked blue line round the gums, together with the most extraordinary degree of pallor. There was an aortic organic murmur to be distinguished, but, all things considered, the profound anæmia seemed to have arisen as a direct consequence of the lead-poisoning. The treatment was by the iodide of potassium and the elixir of iron, quinia, and strychnia.

Dr. Louis Starr treated a case of the same disease lately under his care with ʒ ij. of the sulphate of magnesium, each morning, and with sulphuric acid lemonade as a constant beverage.

DIGITALIS BY HYPODERMIC INJECTION.

Dr. Starr has recently been employing digitalis hypodermically with much success in cases of advanced phthisis and of heart failure. The injections at first contained gtt. v. of the tincture of digitalis and ℥x. of water. The effects being negative, the amount of the digitalis was increased to gtt. x., with the most decided effects. The pulse fell at once from 120 to 105 in the minute. At one time as much as gtt. xv. of the digitalis were injected with great advantage.

ATROPIA AS A PREVENTIVE OF PYÆMIC CHILLS.

In several instances of abscess of the liver and of pyæmia Dr. Starr administered the one-ninetieth of a grain of atropia by hypodermic injection and the one-sixtieth of a grain internally to prevent the distressing chills consequent upon these conditions. This remedy acted like a charm. The effects of the dose or hypodermic injection given in the morning lasted through the following twenty-four hours. The same was the case with the belladonna-bath (tr. belladon., f. ʒ ij.; spts. frumenti, f. ʒ ij.; aquæ, f. ℥j. S. To be applied to the whole surface of the body by sponge at bedtime).

THE INJECTION OF DIALYZED IRON.

Dr. Bennett injected dialyzed iron hypodermically in several instances recently, and, while the constitutional effects were still negative, was obliged to desist, owing to the severe local irritation produced at the points where the needle entered the tissues. This experience coincides with that of Dr. J. M. Da Costa, at the Pennsylvania Hospital.

Progress of Medical Science.

ASPHYXIA IN THE NEW-BORN.—An interesting case of asphyxia in the new-born is reported by Dr. H. J. Garrigues, in which the child made the first inspiratory gasp *two hours and a half* after delivery. At birth the face was violet, the hands and feet blue, and only a few slow and feeble beats of the heart showed that life was not extinguished. As for the comparative value of the different means employed to induce respiration, the insufflation of air through an elastic catheter was found to give the best results. Of the other means used, the irritation of the mucous membrane of the nose by a feather, and by the vapor of ammonia, and of the skin by the momentary application of ice, had the most marked effect. The object in publishing this case is to emphasize a point upon which most of the text-books are not very explicit, viz., *that if only the heart beats, the life of the child may be saved, even if spontaneous respiration does not appear for hours.*

Cases like this present a great *medico-legal interest*, and instances are cited where the settlement of large estates turned upon the question of the life of the child. The laws of different ages and of different countries prescribe different signs to constitute evidence of life. The slightest trace of vital action, in its common and true physiological acceptation—such as crying, breathing, pulsation, or motion—observed after entire birth and separation from the mother, would be deemed in English law a sufficient proof of the child having come into the world alive. In the present case the child died seven hours after birth.—*Reprinted from the American Journal of Obs.*, October, 1878.

NOTE ON THE STRUCTURE AND MODE OF FORMATION OF THE GIANT CELLS OF TUBERCLE.—MM. Charcot and Gombault have, after careful study and experiments, come to the conclusion that the giant cell of tubercle is a multicellular nodule, and not as generally believed a single cellular element. When a giant cell is isolated from a tubercular nodule and brought under the microscope, it is seen to be covered on all sides with processes composed of a granular, refracting protoplasm, having a strong affinity for picric acid; the peripheral portion of the cell is occupied by numerous nuclei, while the central portion consists of a granular, refracting mass, which has a very characteristic appearance. Light tapping on the covering glass causes the separation from the mass of the cell of a certain number of cellular bodies, each of which contains one or more nuclei and carries off some of the peripheral processes just spoken of. Other bodies exactly similar to these are only partially separated from the giant cell. The former are evidently epithelioid cells, which have been closely united with the giant cell, while the latter only differ from them in the fact that their connection with the giant cell is still more intimate. In the nuclear zone of the giant cell the lines of junction of these cellular bodies can often be distinctly perceived, but they disappear entirely in the central granular mass. If the tapping be carried on farther, the giant cell is sometimes resolved into a number of smaller masses, each containing several nuclei, and evidently cellular in its structure.

Sections of the giant cells furnished some important information. Three successive cuts of the same cell, which is taken as an example, presented the following appearances: No. 1 presented a true multinuclear plaque. In the centre of the plaque the nuclei were crowded closely together, but towards the periphery they became more and more sparse. From the periphery extended in all directions a crowd of processes with thick bases and attenuated apices, which were lost in the surrounding tissue. No. 2 presented the giant cell with what may be called its classical characters: centre granular, refracting, and structureless; outside of this a zone of nuclei; beyond this still very numerous processes radiating in all directions. In one place the zone of nuclei was interrupted for a certain space, and at a point corresponding to this hiatus the processes were almost entirely wanting. This fact was taken as a fresh intimation of the intimate relation existing between the nuclei and the processes. No. 3 finally presented a small mass of cellules with brilliant protoplasm and indistinct contours; at the centre of the mass the cellules were grouped about a narrow opening which could be followed to a certain depth in the cut. The giant cell varied in size as well as in shape and constitution, in the different cuts. If the volume of the cell in cut No. 3 be taken as the unit of measure and represented by 1, its volume in the second cut would be represented by 3, and in the first by 2¼.

MM. Charcot and Gombault think that the facts noted justify the following deductions: First of all, the giant cell tapers towards one and perhaps both of its extremities. Second, both the pedicle and the peripheral zone of the dilated portion of the cell have a purely cellular structure, but in the latter region the elements have undergone a modification, as a result of which they are soldered together by a partial fusion of their protoplasms. The characters of this modification are most marked at the periphery; they consist in the swelling of the protoplasm, its granulated aspect, its tendency to fusion, its peculiar refractive power, and its affinity for picric acid, to the exclusion of carmine. All these different changes, however, are also met with in other parts of the tubercular new-growth, and it is through them that the epithelioid zone of the tubercular follicle is produced. The cells lining the pulmonary alveoli and the endothelium of vessels of a certain calibre, also undergo, under certain circumstances, a similar modification. The nature of this degeneration is unknown, but it may be designated by the term "vitreous transformation," and its effects, as MM. Charcot and Gombault believe, are analogous to what takes place in the peripheral zone of the giant cell. The cellular elements increase in size, the nuclei proliferate, and the protoplasm takes the above characters; then the cells fuse together in greater or less numbers, the lines of separation disappear, and thus structures are formed, resembling to some extent the giant cells. Moreover, it is known, that the ordinary end of this vitreous transformation is caseous degeneration, and the resemblance between the central caseous matter of a tubercular granulation and the central substance of a giant cell is very striking.

From these considerations our observers deduce the conclusion that the central mass of the giant cell had at one time the same cellular structure as has been demonstrated in its pedicle and its peripheral zone, the elements having undergone first an epithelioid transformation, and then caseous degeneration. Hence, it follows that the giant cell is not a single cellular element, but a multicellular nodule, at the centre of which the tubercular process has attained its limit of development.—*Gazette Medicale de Paris*, August 24th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 1, 1879.

ANTISEPTIC SURGERY.

THERE is scarcely a subject of greater interest to the surgeon, and, it may be added, to the general practitioner, than that of the management of wounds, for upon this often depends the well-being and life of his patient. From the remotest time the care of wounds has received the attention of some of the best minds in the profession, and yet, notwithstanding the advances that have been made in pathological and physiological studies, there is still a want of agreement among practical surgeons in regard to this subject. The low rate of mortality after capital operations, in the practice of some surgeons, cannot be attributed entirely to any peculiar mode of performing the operation, to the pathological condition demanding surgical interference, nor to the condition of the patient—although the two latter elements are no small factors in turning the scale either toward a fatal termination or recovery. There is still another factor, namely, careful personal attention to every detail in the after-management of the case, to which, more than any other, this low rate of mortality must be assigned. Within the last few years a new impetus has been given to the study of the cause of failure of immediate union in wounds, and of the frightful rate of mortality that has prevailed in hospitals at home and abroad, and practical men are now turning their attention more to surgical dressings and the care of wounds than to any new mode of operating or the invention of complicated instruments. The tendency is toward simplifying, rather than complicating, surgical procedure.

The visit of Mr. Lister to this country in 1876 afforded him an opportunity to explain his views on the management of wounds, and since then the Lister plan of the treatment of wounds has gained many advocates in hospitals in this and other cities. It is a matter of record that the mortality, both in hospitals and private practice, has been greatly diminished since the antiseptic treatment of wounds has been adopted. But, while due credit must be given to Mr. Lister for his labors in this direction, we must not shut our eyes to the brilliant results that have followed other plans of management of wounds after operations by other surgeons. We are all liable to be carried away by anything that has an air of mystery about it, or is new, and before we are aware of it we find ourselves advocating and practising modes of procedure that a sober second thought would cause us to reject or greatly modify. That there is much in antiseptic surgery, speaking of it in a general way, no sane man will deny; and the great problem that is being worked out now is, what is essential, and what can be discarded in carrying it out. The aim of every one, when called upon to treat a wound, is to obtain union as by first intention, and in order to attain this there are certain rules of surgery that are as familiar as household words, and which experience has taught us to follow, namely, perfect coaptation of the edges of the wound, and absolute rest. Now, the two disturbing elements preventing primary union, are: 1, tension from effusion of blood or serum, causing separation of the edges of the wound; 2, inflammation and suppuration followed by putrefaction and secondary phenomena, which we designate as surgical fever, pyæmia, and septicæmia. Mr. Lister has demonstrated that by one plan at least, in the majority of cases, these disturbing influences can be prevented, and wounds can be made to heal by first intention without putrefaction with its attendant danger, and that mortality in hospitals can be reduced almost to zero.

The theory on which Mr. Lister insists as the cause of putrefaction, non-union, and its attendant results, is that known as the germ theory, and to prevent these germs from planting themselves in the wound is the aim of all antiseptic precaution.

That wounds will heal perfectly without suppuration, treated upon the old plan, is a well-known fact, and proves that contact with the air is not necessarily followed by suppuration, and even when a wound heals by granulation there is not necessarily any infection of the system. Yet Mr. Lister, and those who have followed closely in his footsteps, have certainly obtained better results that those who have treated wounds on the old plan. But other surgeons, who have treated these amputations in accordance with plans diametrically opposed to the antiseptic method as proposed by Mr. Lister, or who have omitted certain precautions which Mr. Lister has insisted upon as being essential, have had as good results as claimed by those who followed strict antiseptic rules as laid down by him. We think that it is time to examine this question of the treatment of wounds, and see if a careful review of the different methods will not point out what are essential and what may be discarded.

1st. There is the open method introduced by Kern, a Vienna surgeon, and now advocated by Dr. James R. Wood, at Bellevue Hospital.

2d. There is the cotton-wool dressing of M. Guérin.

3d. The modified antiseptic method of Mr. Callender.

4th. The dry dressings of Mr. Gamgee.

5th. There is the strictly antiseptic dressing, so-called, of Mr. Lister.

Dr. Dennis, in describing the open method as advocated by Dr. Wood, states: The cardinal principle involved in this method of dressing is that of preventing suppurative fever, and this object is best obtained by leaving the stump entirely open, thus allowing free and continuous drainage. There are no sutures used; the wound is simply kept scrupulously clean, and every precaution is taken to prevent contamination from any other wound. Carbolic acid is freely used. By this plan Dr. Wood has had fourteen consecutively successful amputations of limbs in a ward that had been vacated the previous year in consequence of puerperal fever, and in a hospital whose sanitary condition has always been considered bad.

M. Jules Guérin, in 1875, adopted raw cotton as a dressing for wounds, filling the cavity with small masses applied accurately to every part of the surface, and then layers of wadding were applied over and around the stump, and over all a bandage was put on with great care, with as much compression as possible, the wound being first thoroughly washed with some germ-killing fluid. He found it the best plan to leave the dressings on for two weeks without change, and if the discharge appeared through the cotton, to apply another layer. His results were much better than that of other surgeons in the same hospital, treated upon the old plan. Dr. Wood and M. Guérin did not aim at primary union; their plan was to prevent accumulation of fluid in the cavity of the stump.

The aim of Mr. Lister was, first, to prevent any contamination of the parts by contact with germ-laden air from instruments in the hands of the operator or his assistants; second, to obtain primary union and to secure pefect drainage, and to prevent putrefaction from the pus coming in contact with the air. The methods insisted upon by Mr. Lister are so well known that we need not enumerate them. Mr. Callender, at St. Bartholomew's Hospital, has for some years adopted the following method of dressing wounds: he uses torsion on all the arteries; he then brushes the cut surface with a forty-grain solution of chloride of zinc, or one to twenty solution of carbolic acid. He carefully unites the edges with silver sutures, and inserts drainage-tubes to relieve all tension; over the wound he places a piece of lint soaked in a solution of carbolic acid and oil, one to twelve, and surrounds the whole with cotton wool. He puts the parts absolutely at rest, not only the limb, but of the system, by the use of opiates. Under this plan he has had twenty consecutively successful cases of amputation of the thigh, and, out of thirty amputations of limbs during a year, had no fatal case.

Lately Mr. Gamgee has advocated what he calls the treatment of wounds by dry and infrequent dressings, rest, and pressure. He unites the edges of the wound with silver sutures, places a gauze and oakum pad over the wound, provides for perfect drainage by rubber tubing; he then envelops the part in cotton-wool, and applies a splint, if it be a limb, so as to insure absolute rest to the parts. In this way he treated a wound into the knee-joint, and when the dressings were removed on the ninth day the wound had entirely healed. There had been no pain or elevation of temperature. We might refer to other methods of treating wounds, but the above will suffice for our purpose. Let us turn for a moment to these five methods and see what is common to them all, and in what they differ, and *first* they all insist upon *perfect drainage, cleanliness, and rest.* Messrs. Callender, Gamgee, and Lister, in addition, insist upon perfect coaptation. Mr. Lister alone is an advocate of the spray, and considers it of as great importance as his drainage or antiseptic dressings. The plan of Mr. Lister is expensive, requires considerable experience, and more personal supervision than any of the other methods, and at the same time more handling of the parts; and the question naturally arises, Is it superior to any of the others, and cannot equally good results be obtained by a modification? And first we would again refer to the results of Dr. Wood's experience at Bellevue in proof of the fact that contact with the air is not necessarily followed by surgical fever, and that cleanliness with exposure to the air will prevent putrefaction—the same may be said of Green's method; the objection to these plans is that they do away with primary union, and therefore keep the patients longer under treatment.

Mr. Callender's mode of treating wounds may be said to be antiseptic without the spray. His results at St. Bartholomew's Hospital, after capital operations, have never been equalled. As a further proof that the spray can be done away with, the plan of treating compound fractures by Mr. Lister himself is to the point, as proving that washing out a wound with a one to thirty solution of carbolic acid gives as good results as are obtained by the use of the spray in operations, notwithstanding the fact that there is usually considerable laceration of the soft parts, and often foreign substances in the wound in compound fractures. If we mistake not, Mr. Bryant's plan of sealing up the wound in compound fractures with Tr. benzoin co. was attended with marked success, even without washing out the wound with a solution of carbolic acid.

Experience seems then to point to a modification of

Mr. Lister's antiseptic plan. There is a growing conviction that the spray can be dispensed with, and that a thorough washing of the cut surfaces with an antiseptic fluid will accomplish the same end. Again, some surgeons omit the gauze, others use only a few layers in the place of eight, as insisted upon by Mr. Lister; some are trying other absorbents, as jute, etc.; but the end aimed at by all is the same, namely, to obtain perfect drainage, cleanliness, and rest. If we were called upon to decide what was the most important element in Mr. Lister's dressing, we should say that it was his system of drainage, and to this more than anything else must be attributed his success. This, together with cleanliness and rest, is the principle common to all methods of dressing wounds, and to this conclusion the experience of surgeons here seem to point.

Mr. Spencer Wells says, in regard to this point: "With regard to the spray, I have very grave doubts myself whether it is an essential or useful part of antiseptic treatment . . . . In a word, let us regard antiseptic treatment not as a substitute for those measures which have already proved effectual, but as an additional safeguard." The old rules of surgery that have stood the test of years are as true now as ever, and all advance we may hope to make is in more perfectly carrying out the indication they point out, namely: perfect coaptation, perfect drainage, cleanliness, and absolute rest. Antiseptic treatment is only so far an advance in the right direction as it aids us in carrying out more perfectly these rules.

ANTHROPOLOGICAL STUDY.

A RECENT examination of the body of a male chimpanzee in Philadelphia, by Prof. Leidy, of the University of Pennsylvania, is a matter of interest to anthropologists generally. It will be recollected that within the past year we had occasion to notice an examination of a similar specimen by Prof. E. C. Spitzka, of this city. The examination by Prof. Spitzka was the first one of this kind that was made of the brain of the chimpanzee, and established some important facts ralating to the development of this organ. In his specimen the dimensions, the outline, and the proportions of the brain were similar to those of the newborn infant, as might be inferred from the size and the shape of the cranium. There were, however, several distinctive features which became apparent on careful examination. The cerebrum overlapped the cerebellum, consisted of the same number of lobes as in the human subject, was as rich in convolutions as the brain of the Bechuana, and possessed an island of Reil, with the addition of an operculum for the occipital lobe. The trapezium was absent, as in the human subject, and the olivary bodies were present, the latter being well developed and causing the usual prominence of the medulla.

The dissection made by Prof. Leidy bears out the conclusions reached by Prof. Spitzka, so far as the general conformation of the brain is concerned.

We have learned incidentally that an examination, made a few weeks since by Dr. H. C. Chapman, of Philadelphia, of the brain of a female chimpanzee, presented some marked anatomical differences from those recognized in the male specimens. It is presumed, however, that these differences are more in degree than in kind, and possibly may be explained upon the supposition that the brain of the male specimen is better developed than that of the female. From all accounts it would appear that the brain examined by Prof. Leidy was an unusually large one, as it is reported that the cerebellum was quite, if not entirely covered by the cerebrum. But the marks of differences between the male and the female specimens are more noticeable when the conformation of the vocal organs is considered. The male, who is noted for his loud and piercing cry, possesses the anatomical peculiarity of a natural bagpipe, which communicates with the larynx, extends to the breasts, into the arm-pits, and is covered by powerful muscles. The other organs of the bodies examined presented no peculiarities worthy of notice. We are glad to learn that Prof. Leidy will make a detailed examination of the body, and present the results in a paper to the Academy of Natural Sciences. Such a subject in the hands of this distinguished anatomist cannot fail to be treated in a manner which will be highly satisfactory to all who are directly or indirectly concerned in the study of anthropology.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

SURGICAL SECTION.

Stated Meeting, January 14, 1879.

DR. STEPHEN SMITH, CHAIRMAN.

GROWTHS AND FOREIGN BODIES IN THE AIR-PASSAGES; DIAGNOSIS AND SURGICAL TREATMENT.

DR. LEAMING introduced the discussion upon the above subject by reporting a series of cases.

CASE I.—In 1860 a gentleman called upon him and told the following story: While running, with a ten-cent piece in his mouth, to catch a ferry-boat, the coin slipped and passed downwards. He had a slight cough when it first went down, but no violent symptoms. The accident happened in the morning, and late in the afternoon he called at Dr. Leaming's office. The symptoms were so slight that the doctor thought the man had swallowed the coin, but the patient insisted that he could hear something in his chest. On listening carefully at the junction of the third rib with the sternum, a certain sound could be heard, as of something turning over. Such a sound could be heard after the

occurrence of several respirations. Dr. Leaming then had no doubt that the coin passed into the trachea and lodged upon the right side at the septum, and did not completely shut off respiration upon either side at any time. He thought the residual air in the lung was sufficient to turn the coin over at certain intervals, and in that way explained the peculiar sound that could be heard upon auscultation, and also by the patient himself.

According to a plan of treatment adopted by an English surgeon, the man was advised to get upon a bed and then turn himself quickly upon the floor. The moment his head was thrown downward the coin flew out of the mouth and struck the floor with considerable force.

Case II.—A man was brought into St. Luke's Hospital in a state of suffocation, on account of a gummy tumor of the larynx.

Dr. Gurdon Buck performed tracheotomy at once, and the patient was immediately relieved. On the following day an operation was performed for the removal of the tumor. The patient continued to wear the tracheotomy tube and its shield. One night he awoke suddenly with a feeling of strangulation. On examination it was found that the shield was *in situ*, but that the tube had disappeared. The house-surgeon searched for the tube, but was unable to find it. It was supposed that it had reached the stomach, because the violent symptoms had subsided, and the patient was quite comfortable. He had been in that condition several days when Dr. Leaming saw him, and upon making a physical examination of the chest he was able to detect an abnormal sound upon the right side. A whistling sound could be heard over the chest, but it could be distinctly located at the middle and upper part of the interscapular space. In that region and over a space about an inch and a half in length, and about an inch in width, a peculiar whistling sound could be heard. It was believed that the tube had passed into the bronchi and lodged in the cul-de-cac of the first division. It was removed by an operation, and the patient recovered.

Case III.—The third case was seen with Dr. Jones. A man standing in a stable was chewing a stalk to which a timothy-head was attached. He suddenly coughed, and, with the forcible inspiration which as quickly followed, the timothy-head sailed through the larynx and passed into a bronchus before it was arrested.

Circumscribed pleurisy was developed upon the right side, and three inches above the diaphragm a line of pleuritic râles could be heard from the sternum to the spine. Above that point the lung was free. When he found that the lung was free down to that point, he made the diagnosis that the timothy-head had penetrated the pleura and passed into the liver. The diagnosis, however, was wrong. The man lived about one week. In the meantime the timothy-head was thrown up in an act of coughing and vomiting. At post-mortem it was found that adhesions had occurred between the pleural surfaces upon the right side, and that a sac had been formed with a valvular opening, so that when closed no breath-sounds could be heard below a certain line; but when the patient coughed it would be free, and then sounds could be heard below. The entire lung was destroyed, and hay-seeds were found scattered throughout the lung-tissue.

Case IV.—A boy, who was holding in his mouth a collar-button, attempted to speak to another boy, and as he took a breath the stud passed through the larynx and down into a bronchus. He coughed considerably during the same night, but subsequently not very much local disturbance was produced. On auscultation a double whistling sound was heard in front, at the upper portion of the fourth intercostal space, and also behind; more distinctly, however, in front. It was believed that the button had passed down until it reached the *third* division of the right bronchus, and there lodged with the shank across the septum, so that the bronchial tube was dilated by the projecting extremities.

Evidences of pleurisy were developed, and were followed by those of lung consolidation.

After the lapse of some months, Dr. Markoe opened the trachea, introduced a probe, and loosened the body, and then removed it with a pair of curved forceps.

The boy quickly rallied from the constitutional disturbance produced by the foreign body, and made a good recovery. As soon as the operation was performed the double whistling sound disappeared.

Case V.—A portion of a peach-stone passed into the right bronchus. In that case no distinct adventitious sound could be heard; but over a portion of the lung there was complete absence of respiratory sound. An effort was made to dislodge the body by elevating the heels and lowering the head, but it failed.

An operation was advised, but the family objected. Pleurisy followed. After a time, during a violent fit of coughing, the foreign body was thrown out covered with mucus.

A second case in which the foreign body was a portion of a peach-stone, was also mentioned.

Case VI.—In a hospital patient, blood from an operation about the mouth trickled down into both bronchi.

At first there was simply severe and constant coughing, but little or nothing was expectorated.

At the end of two or three days pleuritic râles could be distinctly heard upon the right side over a limited space, and soon the same kind of râles could be heard upon the left side of the chest. Subsequently it was readily determined that consolidation of lung-tissue had occurred. Death took place on the sixth day. At post-mortem, consolidation of lung-tissue was found, small abscesses in direct connection with the clots, evidences of older pleurisy, and a large amount of plastic material at the lower portion of the pleural cavity.

Case VII.—A hospital patient, upon whom an operation affecting the jaw was to be performed, suddenly vomited while a tooth was being extracted. The tooth slipped from the forceps and disappeared. The patient coughed considerably on the next day, and also on the day following, when Dr. Lefferts, then house-surgeon, made the diagnosis that the tooth had entered the air-passages, had lodged in the left bronchus, completely obstructing it.

Evidence of pleurisy followed, and subsequently evidence of lung consolidation. The entrance of air into the left lung was completely prevented until abscesses had formed, when air could be heard passing the tooth. No operation was performed for the removal of the foreign body. The case terminated fatally.

At autopsy the tooth and abscesses were found as diagnosticated.

When the obstruction was such as to completely prevent the entrance of air into the lung, the complete absence of respiratory sound could be taken as evidence with regard to the position of the foreign body. That might occur with such a body as a tooth.

With such irregular bodies as coins or tubes, or buttons, their position could be determined by the location of the sound produced by the air as it passed them, provided they were above the residual air.

The first lesion in the case in which blood had passed into the bronchial tubes was the pleurisy.

Dr. F. V. White asked Dr. Leaming how he explained the common occurrence of the pleurisy in the cases reported?

Dr. Leaming replied that the sympathy between the bronchial tubes and the pleura was very marked, and that irritation of the bronchi was very commonly followed first by pleurisy and then by pneumonia.

Dr. Weber remarked that he was not able to accept the explanation of the occurrence of pleurisy, after the lodgement of foreign bodies in any part of the bronchial tube, upon the basis of sympathy between the bronchial tubes and the pleura. The foreign body doubtless would cause local irritation, and in response to that irritation a certain kind of pneumonia might be developed, which would rapidly extend, and produce a certain amount of pleurisy. There might be sufficient pleuritis to give rise to friction-sounds, but he believed that it was preceded by pneumonia; that the pneumonia existed, but was not sufficiently well developed to give rise to bronchial breathing. If the occurrence of the pleurisy was to be explained upon the basis of sympathy between the bronchial tubes and pleura, pleurisy should be a common complication of bronchitis.

Dr. Leaming remarked that bronchitis and pleurisy were very frequently associated with each other.

Dr. Weber thought it impossible that such an opinion could be correct.

Dr. Post referred to a case in which a persimmon seed passed into one of the bronchi, and there remained for a long time. The patient, one of his former pupils, had a cough, which was attended by a purulent expectoration and emaciation, and he presented the appearance of one suffering from pulmonary consumption. Hectic fever was well marked. Finally, during a violent fit of coughing, the foreign body was ejected, and the patient made a good recovery.

He further remarked that, in the English case referred to by Dr. Leaming, tracheotomy was first performed in order to avoid suffocation from spasm of the glottis in case the coin was dislodged and passed through the larynx. For the removal of such bodies as smooth pieces of coin, the operation and the sudden change in the position of the patient was proper; but if the foreign body was irregular in shape, and rough, probably not much could be accomplished in that manner.

Dr. Stephen Smith asked if it would be proper to perform tracheotomy in cases in which the coin was no larger than a ten-cent piece?

Dr. Leaming thought it would be well to have a surgeon ready in case the operation became necessary.

Dr. Post believed that it was better to first perform tracheotomy as a matter of safety, for the operation was not a dangerous one, and in case spasm of the glottis was produced by the foreign body, the patient might die from suffocation before relief could be afforded.

Dr. Weber thought it proper to first perform the operation of tracheotomy.

Dr. Post referred to a post-mortem examination which he made many years ago upon the body of a child who died in consequence of the inhalation of a piece of a peanut-shell into the trachea. Some time previously the child had swallowed the fin of a fish. The forcing body had perforated the intestine, had become surrounded by a band of false membrane, forming such attachment as to leave an opening through which, in a violent fit of coughing caused by the peanut-shell in the trachea, a large mass of intestine was forced, and then became strangulated.

Towards the close of the case the abdominal symptoms masked the thoracic symptoms.

In this connection mention was made of Dr. Buck's case, in which a fish-bone remained in the air-passages *fifteen years*, and was then expelled by coughing.

Dr. Robinson referred to the value of the laryngoscope in deciding that the foreign body was *not* in the larynx. He also inclined to the opinion that more recent observations had proven that it was not well to operate for removal of foreign bodies from the bronchi, for the reason that a greater number recovered when left to the efforts of nature.

Dr. Garrish referred to a case in which a cherry-stone dropped into a gentleman's mouth and disappeared. About four weeks afterwards he began to cough and expectorate, his health began to decline, and he became extremely emaciated.

At the end of eight or nine months the doctor saw him, and prescribed a cough mixture, which happened to cause the patient to vomit. While vomiting, the cherry-stone was thrown out, and from that time the man began to improve, and made a rapid recovery.

Dr. Burrall regarded the laryngoscope as a valuable instrument to give us negative evidence in these cases, when it could be employed.

He referred to a case in which a needle was swallowed and became fastened in the throat, and in that instance he thought he made a practical deduction. The spasm was so great that the laryngoscope could not be used. The needle could be touched with the finger. The finger in the throat excited efforts to vomit, and with each effort the needle was raised, but not expelled. Firm pressure depressed the posterior part of the larynx, so as to increase the space, and after two or three efforts at vomiting the needle was expelled.

In the previous efforts the larynx had been raised against the pharyngeal wall, and so occupied the space that the needle could not be removed.

Dr. Weber reported a case in which, at the request of another physician, he performed laryngotracheotomy for the purpose of permitting the removal of a growth from the larynx. The subsequent history of the case proved that the patient had cancer of the œsophagus. In consequence of the pressure produced by the growth in the œsophagus the mucous membrane of the larynx presented a tumefied appearance, which led the physician to believe he had to deal with epithelioma of the larynx.

The Section then adjourned.

Stated Meeting, February 11, 1879.

COMPOUND HARE-LIP.

Dr. James L. Little presented three cases of compound hare-lip with cleft palate. The patients were three brothers, aged 22, 18, and 9 years. The father was born in England, the mother was a native of the United States. No deformity could be traced upon either side. The family consisted of nine children, who were born as follows: First, a boy, with compound hare-lip and cleft palate. Second a girl, without deformity. Third, a boy, with compound hare-lip and cleft palate. Fourth and fifth, two girls without deformity. Sixth, a boy, with compound

hare-lip and cleft palate. Seventh and eighth, two girls without deformity. Ninth, a boy, who lived only a few hours, but was born with compound hare-lip and cleft palate. Four boys and five girls; all the boys born with deformity, and all the girls without deformity.

The only external deformity in the family, aside from the hare-lip, was absence of the ring-finger, and a peculiar twisting of the little finger, on the right hand of John Bocock, which gave it somewhat the appearance of a thumb. The index and middle fingers were also larger and longer than corresponding fingers upon the left hand.

On Wm. Bocock, æt. 22 years, four operations were performed. His lip before the operation had a wide cleft, the intermaxillary bone projected and held one incisor tooth, and there was fissure of the hard palate. The first operation was to close the fissure in the hard palate, and was only partially successful; the soft palate separated entirely, and the covering for the fissure in the hard palate almost entirely.

The second operation consisted in removing the projecting portion of the intermaxillary bone, and forming a septum for the nose with the integument by which it was covered. The operation was successful. Subsequently, an operation was performed upon the double hare-lip. That operation was followed by an attack of erysipelas, and was only partially successful.

Lastly, what is known as Nelaton's operation was performed, and the result was very satisfactory.

On John Bocock, æt. 9 years, two operations were performed. The intermaxillary bone projected and carried two incisor teeth. A septum was formed for the nose in the same manner as in the first case, and the operation was successful. Subsequently an operation was performed upon the double hare-lip, and the result was very satisfactory.

Chas. Bocock, æt. 18 years, had a very wide cleft in the mouth, but the projection of the intermaxillary bone was not so prominent as in either of the other cases. Dr. Little proposed to operate after the same general plan by which he had been guided in his operations upon the other patients.

Dr. Post exhibited a *daguerreotype* of a patient thirteen years old, upon whom he had operated for the correction of a deformity that equalled the worst features of any case which Dr. Little had presented. The result was such that no indentation was left in the margin of the lip. He thought it very important to make the incisions so that when the edges were brought together there would be considerable pouting at the junction on the margin of the lip. There was no danger of bringing too much material to that point.

Again, operations performed upon adults or half-grown children were usually followed by better results than in small children. The parts could be brought into more perfect apposition, etc.; still, it was not desirable to allow children to grow up with such a deformity. In cases in which there was fissure in the bony structure, early closure of the fissure in the lip exercised a certain amount of pressure, and diminished the breadth of the cleft in the hard palate.

Dr. Wm. T. White referred to a family in which three of the children were born with hare-lip and fissure of the palate. All died within a few days after birth.

Dr. Post referred to a family reported by Dr. Buck, in which the mother and five or six children had hare-lip.

Dr. Garrish referred to four families in which there were three children in each family who had hare-lip, either compound or simple.

Dr. Wiener referred to a family in which two children born of the first wife had compound hare-lip, but in none of the children born of the second wife did the deformity appear.

He thought it was next to impossible to secure such perfect coaptation of the parts at the first operation as could entirely correct the deformity. He had never seen a case in young children in which it was not necessary, after the child reached ten or twelve years of age, to operate to remedy the indentation in the margin of the lip.

With reference to closing the fissure in the hard palate, he thought an operation should be avoided, because the dentists had succeeded so well in making an artificial roof of the mouth, and at the same time the operation was quite commonly unsuccessful.

Dr. Little thought if the operation could be performed it was usually successful, and believed it to be bad advice to send such patients to the dentists. There were comparatively few patients who could bear the expense of the artificial appliance. In order to secure the best results so far as indentation in the margin of the lip was concerned, he thought it very important to secure perfect coaptation at the *upper* edge of the vermilion border.

Dr. Wiener referred to a case in which an opening in the hard palate about three-fourths of an inch in diameter was successfully closed by a button made of gutta-percha. The girl had learned to mould one herself, and made a new button as often as the old one became hard and gave her any discomfort. An artificial appliance was thus afforded which answered all practical purposes, and the expense was a mere trifle.

Dr. Post thought it well confirmed that a properly formed artificial palate was more useful than a united velum, and was preferable if the patient could afford the expense.

Dr. Little's communication was referred to the Academy.

DEFORMITY PRODUCED BY A BURN.

Dr. A. C. Post presented a cast representing the hand of a child two years old. At the age of eight months the child received a burn by falling upon a stove. The injury was followed by a deformity. The hand was bent forcibly backward, and the only part not seriously injured was the thumb and the ring finger. Dr. Post operated by first dividing the cicatricial mass upon the back of the hand, and then dissecting out the little finger, and bringing it into parallel position with the ring finger. The index finger was atrophied and unfit to preserve, therefore the bones were removed and the skin was used as a covering for the middle finger, which was dissected out from the cicatricial tissue upon the back of the hand. He succeeded in obtaining a hand which did not present much deformity except that it had only three fingers, and one of these was considerably increased in size. To diminish the size of the finger another operation was to be performed. Dr. Post believed he had proved that the tendency to contraction in cicatricial tissue following a burn could be overcome, but in order to accomplish it great perseverance was necessary.

REMOVAL OF FOREIGN BODIES AND GROWTHS FROM THE AIR-PASSAGES.

Dr. Clinton Wagner confined his remarks upon this subject to the removal of foreign bodies and growths from the larynx. With reference to lodge-

ment of foreign bodies in the larynx, according to his experience, it was exceedingly rare. In such cases if the foreign body could be seen by the laryngoscope, he would not be in haste to perform tracheotomy unless death from suffocation was imminent. He preferred to wait until tolerance had become established, and later on try to remove the foreign body by means of Mackenzie's forceps with the aid of a laryngoscope. He then referred to a case published in the London *Lancet* several years ago, in which a piece of bone one inch in length by three-fourths of an inch in breadth was successfully removed in that manner. With reference to growths in the larynx, his experience had been more extended. Nineteen cases had come under his own observation. In those cases he thought tracheotomy should not be performed unless breathing was interfered with, or death from spasm of the glottis was apprehended. Removal *per vias naturalis* should always be first tried.

With reference to preliminary treatment in such cases, he thought its necessity had been greatly overestimated. He rarely adopted any preliminary treatment, and made an effort at once to remove the growth. If unsuccessful the first time, he repeated the operation after the lapse of a few days. He never pressed the use of the forceps for a longer period than ten minutes at a single sitting. In the hands of one accustomed to their use, he thought Mackenzie's forceps devoid of danger. It had been claimed that lacerations, paralysis, perichondritis, or chondritis were apt to follow their use, but he had not seen any sueh unfavorable results.

In cases in which the growth had been allowed to increase in size to such an extent as to interfere considerably with respiration, no time should be lost by attempting to remove it through the mouth, and the extra-laryngeal method became necessary.

To summarize: in all cases of intra-laryngeal growths, removal through the mouth should be attempted, and he had not seen a case in which removal through the mouth could not be effected when the growth was situated above the vocal cords. The extra-laryngeal method of removal should be resorted to only when death was imminent from spasm of the glottis.

Dr. Garrish exhibited Dr. Physick's instrument for removing foreign bodies from the throat and œsophagus.

ENLARGED LYMPHATIC GLANDS—IODOFORM AND COLLODION.

Dr. Burrall referred to a single case in which there was a marked improvement in the general condition, and a diminution in the size of a bunch of enlarged lymphatic glands situated at the base of the neck in a scrofulous patient. The favorable change was apparently produced by applications of *iodoform dissolved in collodion*, one part of iodoform to fifteen of collodion, as recommended by Moleschott. He thought the remedy was worthy of a trial.

The Section then adjourned.

Coryza.—Dr. Rudolpho Rudolphi recommends the use of eucalyptus globulus for the rapid cure of *acute* coryza, or cold in the head. He has found, by numerous trials on himself and patients, that after chewing a few of the dried leaves and slowly swallowing the saliva, the affection is promptly relieved, often disappearing in the course of half an hour. The remedy is useful in acute cases only.—*Gazz. Med. Ital. Lombardia*, January, 1879.

Correspondence.

THE AMERICAN PUBLIC HEALTH ASSOCIATION AND THE WITHERS BILL.

To the Editor of The Medical Record.

Sir:—In your editorial comment on the excellent letter of Dr. B. F. Gibbs, published in the Medical Record of the 15th inst., you have adverted to the fact that the Withers Bill, based upon a recommendation of the Executive and Advisory Committees of the American Public Health Association, and supposed to embody their views, leaves the whole matter of sanitary legislation virtually in the hands of an extra-medical scientific body, though the aforesaid authorized representatives of the Association had only asked that the Academy of Sciences should designate the members of a Provisional Health Commission who should be charged with the duties now proposed to be assigned to that Academy.

Whether the Association is willing to father the bill as it now stands may admit of a difference of opinion, but that the committee charged with this duty had no alternative, and that they acted within the limits of their delegated powers, will clearly appear from a brief statement, which I trust will satisfy both the Association and yourself.

This committee, consisting of Dr. J. M. Toner, Chairman, Dr. J. S. Billings, and Gen. Eaton, Commissioner of Education, having prepared a bill in strict accordance with the section of the memorandum cited by Dr. Gibbs, requested me to show it to two members of Congress who were expected to be the patrons of the measure, and to request them to present it to their respective wings of the National Legislature. In conferring with these and other friends in Congress, I was at once informed that there were grave constitutional objections to that feature of the bill which required Congress to delegate to parties outside of the Government the authority to appoint a Governmental Commission, and that this difficulty would be obviated by calling on the Academy itself to report to Congress a plan for a permanent Public Health Organization. When this was made known to the committee they promptly and unanimously decided to modify their bill in accordance with the suggestion and advice of our friends in Congress. Though not *ex-officio* a member of the sub-committee, I, as representing in part the Executive Committee of the Association, did not hesitate to take a full share of the responsibility that might attach to this departure from the precise plan indicated in the "Memorandum." In point of fact there was no alternative, as that plan had been rejected by those very members of Congress by whose aid alone we could hope to succeed in our efforts to secure desirable legislation, and we were shut out from falling back on the Lamar Bill, or any similar bill, by the express declaration of the "Memorandum" that "political or local considerations should have no weight in the matter, nor, unless there are grave legal or constitutional objections, *should any officer of the Government be burdened with, or allowed to assume the responsibility of selecting" the members of the commission.*

Some objection to the bill as it now stands is based upon the implied assumption that the National Academy of Sciences is composed exclusively "of gentlemen who have never given any attention to the subject, and whose studies are confined to astronomy, geology, entomology, and kindred subjects." This

is a most unwarrantable assumption, not at all sustained by the actual facts. I understand that every branch of science is represented in the membership of the Academy, and that its *personnel* includes several gentlemen who have a recognized position among the sanitarians of the United States, such as Dr. J. J. Woodward, of Washington, Dr. S. Weir Mitchell, of Philadelphia, Dr. J. C. Dalton, and President F. A. P. Barnard, of New York. Doubtless there are several others, but as I have not the list before me, I cannot now certainly specify them. I understand further, that when any subject is referred to the Academy by Congress, as for example, the question of the proposed consolidation of the various surveys, it is the custom to appoint a special committee composed of such members as have made a special study of kindred subjects.

Moreover, the bill to which you take exception, expressly requires that the plan for a permanent Public Health organization, to be reported to Congress by the Academy, "shall be prepared after consultation with the principal sanitary organizations and sanitarians of the several States, and of the United States, and *shall be accompanied by the evidence of their opinions and recommendations.*"

With such adequate safeguards against incompetent handling of the subject, and against abuse of the special authority proposed to be conferred on the Academy, I cannot doubt but that the measure will meet with very "general approval among the scientific and professional men of the country." I am, very respectfully,

J. L. CABELL, M.D.,
President Am. Pub. Health Association.

UNIVERSITY OF VIRGINIA, February 17, 1879.

THE TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: In a recent number of your journal Professor Stillé makes the remarkable assertion that "*no* treatment was ever invented that stopped a case of acute articular rheumatism," and that therefore the cure may be abandoned "to nature, aided by palliatives." Had this statement been enunciated thirty years ago, little would have been thought of it; at this day a good deal will not only be thought about it, but probably written on the subject. My attention was early drawn to this painful affection from its prevalence in my own family; and the plan of leaving the cure to nature in a second attack, by the skilful physician who then attended our family, resulted in the death of the patient from endocarditis. Having shortly after the time alluded to engaged in practice myself, I treated another member of my family suffering with an extremely acute attack, and succeeded in decidedly shortening the period of his confinement to bed. The plan then in vogue—now nearly twenty years since—was crude as compared with the facilities we now possess, yet notable success always ensued in all cases *promptly* and *thoroughly* treated. The fact that various methods were urged by different authorities did not at that time militate against their value, for rheumatism, as any other disease, may be relieved or cured by more than one plan of treatment. After seeing a fair amount of rheumatic fever during nine years of army life, I came back to this city, in time to find the second case referred to convalescing from a bad attack which lasted *thirty-seven* days under "expectant" treatment in the hands of a well known Walnut Street practitioner. The next attack set in with violent symptoms, intense pain in all the articulations of the lower extremities, and in nearly all those of the upper extremities. I saw him twenty-four hours after taking to bed — his temperature 102⅘°, rapidly mounting to 104° before remedies could be thoroughly applied. There is no necessity for going into the daily symptoms, so much has already been published concerning salicylic acid as to make repetition useless. Suffice it to say that, under twenty-grain doses of salicylate of sodium, in forty-eight hours the temperature was reduced to the normal point, the pain was gone, the inflamed joints were free from swelling, not productive of agony when handled, and the patient—who was anxious to return to his business as soon as possible—was out of the house in seven days. More than that, he has never since then (1875) had a touch of his old enemy. This case is one out of many, and with uniform success in upward of a hundred cases since that time. Much as I respect the opinions of the distinguished Professor, I cannot help differing decidedly and strongly from his statement. The experience of physicians in many thousand cases has proved the value beyond question of the salicylates, and in closing I do not hesitate to say that in the salts mentioned we possess against rheumatism as decided a specific, and more so, than we do in quinia against the so-called malarial fevers.

WM. R. D. BLACKWOOD.

246 N. 20TH STREET, PHILADELPHIA.

UNGT. VASELINI PLUMBICUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: This preparation, referred to on page 168 of the RECORD as highly recommended by Prof. Kaposi, of Vienna, was published by him as new, in the *Wiener mediz. Wochenschrift*, No. 17, 1878. In the Transactions of the New York Dermatological Society, of April 11, 1876 (*Archives of Dermatology*, July, 1876), will be found the following: "Dr. Piffard showed some diachylon ointment prepared by melting together equal parts of the emplastrum plumbi and vaseline, working the mass in a hot mortar till cold. The preparation was very soft, and apparently a perfect combination. He had used it successfully in eczema." As this is not the first time that my own and other American work has been deemed worthy of notice in this country only after it has been appropriated, without credit abroad, I trust you will pardon this trespass on your space.

Respectfully yours,
H. G. P.

DR. BOZEMAN'S REPLY TO DR. SIMS'S LETTER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the letter of Dr. J. Marion Sims, published in the RECORD of February 8th, purporting to explain his operations in Vienna for the cure of cancer of the cervix uteri, he asserts that I did not perform any such dangerous operations while I was there, but confined myself to the simpler ones of vesico-vaginal fistula, of which he himself performed only one, and then institutes a comparison of our respective merits in these words:

"The only comparison I heard made in Vienna between my single operation for vesico-vaginal fistula and Dr. B.'s numerous ones was this—that I took only

hours instead of weeks to prepare a contracted vagina for operation; and that I took only thirty minutes to operate on a difficult case of vesico-vaginal fistula instead of three hours; and that the position of the patient for operation and the whole method of operating were in accordance with correct surgical principles, and void of pretension and mysticism."

Now, whether my operation for vesico-vaginal fistula deserves to be characterized by Dr. Sims as full of "pretension and mysticism" or not, I leave to the readers of the RECORD to decide. I must, however, positively protest against any such unwarranted and unprofessional reflection upon my character and reputation, calculated as it is to injure my standing in the profession.

I wish simply to call attention to two points contained in Dr. S.'s letter to the RECORD: first, to the adroitness by which he tries to cover up his failures and humiliation in Vienna, in the face of published and positive proof to the contrary, by saying that only two out of the three cases operated upon there by him for cancer of the cervix uteri died, instead of all three; and, second, to the adroitness by which he tries to make it appear, in the face of published and positive proof to the contrary, that the result of his only operation in Vienna for "contracted vagina" and vesico-vaginal fistula was of far more practical value than my numerous ones, because he required "only hours" to make the necessary preparatory treatment, and "only thirty minutes, instead of three hours" to close the complicating fistula, referring here to the time taken for the same purpose in my Case II., the worst of the four cases that I cured for Professor Brown at four operations.

With regard to the first point, let us read what is said of it by the Vienna correspondent of the *Chicago Medical Journal and Examiner*, September, 1878, who wrote under date July 15th, who was on the spot and who was in daily communication with Professor Salzer, whose service furnished the patient of reputed recovery, from six to eight months after all these cases of cancer were operated upon by Dr. S.: "Dr. Sims's patients operated upon here all died of peritonitis within ten days of the operation. I remarked to the Professor, who related the facts to me, that I supposed they selected desperate cases for Dr. Sims to operate upon. He replied, that although the cases were bad ones, that did not alter the fact that they had died of the direct effects of the operation."

With regard to the second point, it is only necessary to refer to the report by Dr. Ludwig Bandl, of my four cases of contracted vagina with vesico-vaginal fistula operated upon in Vienna, a translation of which from the *Wiener med. Wochenschrift* is to be seen in the *Richmond and Louisville Medical Journal* for November and December, 1877, and especially that of Case II. of mine, singled out by Dr. Sims for comparison with his case. This case, aged thirty-two, presented a vesico-utero-vaginal fistula, measuring five centimetres transversely and four longitudinally, about the size of a silver dollar; and a recto-vaginal fistula the size of a quarter-dollar, 11.5 centimetres from the perinæum. There was a broad, thick, and unyielding cicatricial band that encircled the vagina, and the left angle of the fistula was adherent to the posterior surface of the pubic bone. There was also complete immobility of the uterus. Superadded to all this there was a prolapsus of the superior wall of the bladder through the fistula and vulva to the size of a child's fist, and also abrasions and urinary concretions upon the labia.

On June 26th, my first incisions into the cicatricial bands were made, and the dilatation with cylinders of hard rubber commenced. Four days later the beneficial effects of the treatment were marked, as shown by the mobility of the uterus. The organ could now be hauled down with hooks, so as to place the borders of the fistula in contact about four-fifths of their extent; but the force required to do this, as accurately determined, was 2,800 grammes, nearly six pounds, an amount of resistance which certainly no form of suture could have withstood without cutting out; a repetition of the incisions as required, and gradually increased dilatation, were continued up to the seventeenth day, with the results as here stated by Dr. Bandl.

"July 13th, Bozeman concluded that the proper time for operating had arrived. The patient was secured upon his supporting-chair, chloroform administered, and the urinary fistula exposed to view in a splendid manner by the introduction of speculum No. 1, with the rectal blade. Professors Billroth, G. Braun, Karl von Braun, Spaeth, and many other physicians, were present. The spring-scales showed that now only 120 grammes (about a quarter of a pound) were necessary to approach the upper to the lower edge. . . . .

"July 20th, Bozeman proceeded to remove the wires (button suture), remarking, at the same time, that he would be satisfied if there was union only to the extent of five sutures. To our great surprise, however, the fistula was found almost completely closed; only a small opening remained between the seventh and eighth sutures on the left side, through which a surgeon's probe only could be passed into the bladder."

The plan of treatment and result in this case speak for themselves. The amount of resistance actually overcome in thirteen days from the time the estimate of it was made was just 2,680 grammes. I say thirteen days, because it will be recollected that the force was measured four days after my *first incisions*, the only thing insisted upon by Prof. Simon in his plan of *immediate preparatory treatment*, the course pursued in Vienna by Dr. Sims in his simple case. Here there was determined, by accurate mathematical demonstration, the precise difference between the two systems of *immediate and gradual preparatory treatment* four days after my first incisions. Of course, at the beginning of the treatment the resistance was far greater, perhaps double, triple, or quadruple the estimate given. The one system, therefore, in this case was proven, by exclusion, to be wholly inapplicable, even worthless, and the other was proven to be equal to the fulfilment of the highest aims of skill and science.

Then, of what consequence were these seventeen days, and a complete cure with preservation of her generative functions, to this poor woman, compared with the result of the inefficient system of immediate preparatory treatment, or kolpokleisis, advocated by Dr. Sims in his simple and comparatively uncomplicated case? And where is the proof, other than unwarranted assertion, that the procedure employed in her case, from beginning to end, was not "in accordance with correct surgical principles, and void of pretension and mysticism"?

Scarcely need I say it was this result, achieved under such difficulties, that convinced the surgeons and gynæcologists of Vienna of the great value of my operation, as a whole, for vesico-vaginal fistula, and caused them to estimate my labors in their midst in the complimentary manner as published by the Vienna correspondent of the *Chicago Medical Journal*.

A somewhat similar case to the one above related at such length was recently admitted into my service at the New York State Woman's Hospital, though far less

complicated and difficult to treat. Here also the upper border of the fistula, after the division on both sides of the broad cicatricial band, could only be put in contact with the lower by a force that would have resulted necessarily in the cutting out of my suture apparatus. Gradual dilatation, however, soon overcame the inherent resistance, and brought the parts into a favorable condition for closure of the fistula. The operation was performed in the presence of Drs. Noeggerath, Fitch, Janvrin, Goldthwaite, Tausky, and many other physicians, and the cure thus completed at a single operation.

In conclusion, I would say that I never went to Vienna to operate for the cure of cancer of the cervix uteri. Dr. Sims did this, I suppose, and is entitled to all the credit that attaches thereto. I went there simply to demonstrate the value of my system of *gradual preparatory treatment* as a means of curtailing or rendering unnecessary obliteration of the vagina in a very large class of urinary fistulæ in women.

Yours very truly,

NATHAN BOZEMAN.

296 FIFTH AVE., NEW YORK, Feb. 15, 1879.

REPLY OF DR. WYETH TO DR. STILLMAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The truth settles all questions of priority promptly. After reading your issue of Feb. 22d, I am convinced that my friend, Dr. Chas. F. Stillman, preceded me in the idea of continuous extension. He deserves, and I give him, the credit his genius demands. Up to the time my paper was read before the New York County Medical Society, I had never had the slightest intimation that any other individual had originated or applied the mechanism of continuous extension in this disease. In the discussion which followed, I was informed by Dr. Judson that Dr. Edmund Andrews had some years ago applied an extension apparatus by means of adhesive-plaster strips. I have written to Dr. Andrews, and, when the evidence is all in, the profession shall have the entire truth of it.

The method of continuous extension is now on probation. I am using it, and intend to do so through a few years and give my results. I believe the profession will endorse my claim that I was the first to apply the double plaster jacket with continuous extension, and to demonstrate its usefulness, and that the idea was entirely original.

Yours truly,

JOHN A. WYETH.

Feb. 24, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 16 to February 22, 1879.

NOTSON, WM. M., Major and Surgeon. To report in person to the President of the Army Medical Board, now in session in New York City, for temporary duty as a member of the Board. S. O. 38, A. G. O., February 15, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Leavenworth, Kan., to accompany Companies A, C, D, G, and K, 23d Infantry, to their new station (a point on the south side of the North Fork of the Canadian), and remain on duty with them as medical officer of the new post. S. O. 32, Dep't of the Missouri, February 15, 1879.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for fifteen days. S. O. 26, Dept. of the East, February 18, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending February 22, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 15, 1879.	0	3	207	3	3	63	0	0
Feb. 22, 1879.	0	10	165	1	6	49	0	0

DR. J. P. CREVELING.—The following were the conclusions given by Dr. Creveling, in his paper read before the New York State Medical Society. They differ from those given in our report, and therefore should be substituted:

1st. That abdominal section for the removal of intestinal obstruction is not only justifiable, but eminently proper.

2d. That in cases of intussusception, as soon as all milder means have failed, the operation should be immediately performed, provided the conditions are at all favorable; but if symptoms of strangulation, as peritonitis, hemorrhage, etc., have occurred, the operation is hardly warranted.

3d. That in obstruction from causes other than intussusception, the operation should be performed at once.

4th. That there is not the real danger in the operation itself that has been by many supposed.

CONVENTION OF AMERICAN MEDICAL COLLEGES.—A call has been issued for a convention of all American Medical Colleges to be held in the city of Atlanta, Ga., beginning at 10 A.M., Friday, May 2, 1879. In general terms the object of the convention is to adopt some "uniform system of instruction more in harmony with the requirements of the age." Although called by the "American Medical College Association," it is entirely distinct from that body. Those colleges which decide to attend the convention by delegates are requested to notify the Secretary, Dr. Leartus Connor, Detroit, Mich., at any time previous to April 25, 1879.

FILARIA IN THE EYE OF A HORSE.—Dr. Jesse Harris of Greeley, Colo., writes that *two* cases of filaria in the eye of a horse have come within his observation. One of the specimens was sent by him to Dr. Prout, of Brooklyn.

THE YELLOW FEVER FUND.—Fifteen hundred ($1,500) dollars have been sent to Memphis, Tennessee; six hundred ($600) dollars to Grenada, Mississippi; one hundred and fifty ($150) dollars to Nicholasville, Kentucky; three hundred ($300) dollars to Highlands, North Carolina; and eight hundred and sixty-six ($866) dollars remain for distribution. This balance will be sent to the same places unless new objects for consideration are soon made known to the committee. In addition, by the suggestion of the chairman, the Chamber of Commerce of the State of

New York was, perhaps, induced to turn over their final balance of eleven hundred and twenty-seven dollars and twenty-six cents ($1,127.26) for the relief of the families of physicians who died in the employ of the Howard Relief Association in New Orleans.

The committee will soon receive twenty-five hundred ($2,500) dollars from the Chamber of Commerce of this city, and two hundred and fifty ($250) dollars from the Hon. Mr. Evarts, Secretary of State.

The committee desire all the advice about the final distribution of the above-mentioned sum, viz., three thousand six hundred and sixteen dollars ($3,616) which they can obtain from the subscribers and others interested. Sixteen families have received aid, and more will be given to them, as they are all deserving and in want; but the committee are anxious that none should be overlooked until it is too late, and respectfully request information from all reliable sources.

J. C. PETERS, M.D., *Chairman.*

VISITING-PHYSICIAN TO GIRARD COLLEGE, PHILADELPHIA.—The Board of Philadelphia City Trusts, at their meeting on Wednesday evening, February 12th, refused to accept the recommendation of the Committee on Household, *i.e.*, that of Dr. T. B. Reed to fill the position of visiting-physician to Girard College, made vacant by the death of Dr. I. B. Biddle, and elected John J. Reese, M.D., Prof. of Toxicology in the University of Pennsylvania, to the position.

EMMA PLATT VS. THE CONTRIBUTORS TO THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.—An action to recover for damages sustained, it was alleged, by improper food furnished to the plaintiff at the Hospital. The patient claimed, by her lawyer, before Judge Finletter, in Philadelphia, on Wednesday, Feb. 19th, that she was a nurse at the institution in question in 1877, that when she went there she was enjoying excellent health, and was competent to do all the work required of her, but that, in consequence of the food and milk furnished her, which she alleged was adulterated, her health suffered to a great extent, causing her to become dizzy, have cramps, a feeling of nausea, etc., and that, notwithstanding her complaints and protests, the same quality of food was furnished her upon several occasions, in consequence of which her injuries had proved to be of a permanent character, and had incapacitated her from further work of this character and from earning a livelihood. While the plaintiff's counsel, in opening the case to the jury, used the word "adulterated," he would not specify in what the adulteration consisted, but, in the declaration filed, it was charged that the plaintiff's food had been poisoned, and the plaintiff, during her examination, testified, among other things, that tartar emetic had been put in her food, for the purpose of destroying, not her life, but her intellect. The testimony of the woman when put upon the stand was very flimsy, the only show of stability in her case being that the Hospital apothecary had examined some of the food furnished the patient at the time of her employment in the Hospital, and had told the woman that he thought it contained tartar emetic. At the time of the trial, however, this same apothecary stated that he was not at all sure of the accuracy of his tests. The general opinion was that the plaintiff was crazy. At the conclusion of the plaintiff's testimony the presiding judge ordered a non-suit to be entered against her, saying that an institution such as the above mentioned could become responsible only in three ways: 1st, if they compel or order their servants to commit a criminal act; 2d, if they knowingly permit a servant to do such an act; and 3d, if the act of their servants produces injury, that act being the result of carelessness on the part of their servants in the performance of their duty. That the plaintiff's case belonged to the first and second class; the charge being that they themselves did it—did it, of course, by their servants—but through their hand and direction and knowledge; and, secondly, that they knowingly permitted the drug to be administered. That at the conclusion of her testimony there was no evidence that the plaintiff knew that she was being either wilfully or negligently poisoned by any one. That he did not see that a single particle of testimony had been brought forward to justify any of the allegations that the plaintiff had made, and that, of course, there was nothing to sustain her case. While the case was on trial there was a good deal of indignation felt by the friends of the Hospital at the attempt made to drag its management into disrepute.

DINNER OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The Alumni Dinner will occur at Delmonico's, corner 26th Street and 5th Avenue, on this evening, Saturday, March 1st, at 6.30 o'clock.

DINNER OF THE ALUMNI ASSOCIATION OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—The eighth annual dinner of the Alumni Association of the Medical Department of the University of the City of New York, took place at Delmonico's on the evening of February 20, 1879. The occasion was a very enjoyable one, and the festivities were continued to a late hour. There were about eighty guests present. Toasts were responded to as follows: "The University of the City of New York," Rev. Charles F. Deems, D.D.; "Our Alumni," Prof. John C. Draper, M.D., Class 1857; "Our Sister Colleges," Prof. Henry B. Sands, M.D., Prof. Wm. M. Polk, M.D.; "Our Public Charities," Hon. Isaac H. Bailey; "The Pulpit," Rev. John Cotton Smith, D.D.; "The Bar," Col. Granville P. Hawes; "The Press," Noah Brooks, Esq.

The following officers were elected for 1879: *For President*—Dr. D. B. St. John Roosa. *For Vice Presidents*—Drs. William A. Hammond, John R. Dickson, S. Fleet Speir, J. J. Peterson, J. W. S. Gouley, W. E. Ford. The *Secretary*, Dr. Fred. R. S. Drake, was elected last year for a term of three years. *For Treasurer*—Dr. C. Dixon Varley. *For Executive Committee*—Drs. Stephen J. Clark, F. Le Roy Satterlee, A. E. MacDonald, Edward L. Pardee, Andrew Otterson, R. A. Witthaus, W. C. Lutkins, L. Goldschmiedt, Newton M. Shaffer, J. H. Hobart Burge, H. B. Conrad, R. A. Murray.

DR. JOHN BYRNE, of Brooklyn, describes and figures his new uterine repositor for inversion of the uterus in the December number of the *New York Medical Journal.*

BOOKS RECEIVED.

BRYANT'S SURGERY. Second American from Third English Edition. Philadelphia: H. C. Lea.

BILLROTH'S SURGICAL PATHOLOGY. From Eighth German Edition. HACKLEY. New York: Appleton & Co.

YELLOW FEVER. SUMMERS. Nashville, Tenn.: Wheeler Bros.

DISEASES OF WOMEN. Fifth Edition. ATHILL. Philadelphia: Lindsay & Blakiston.

LECTURES ON PHYSIOLOGY. WHITTAKER. Cincinnati, O.: Robert Clark & Co.

HEALTH PRIMERS. New York: Appleton & Co.

Original Lectures.

YELLOW FEVER—ITS ORIGIN, PROPAGATION, NATURE, AND MORBID ANATOMY.

A LECTURE DELIVERED BY SPECIAL REQUEST BEFORE THE GRADUATING CLASS OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA.

BY ALFRED STILLÉ, M.D., LL.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE AND OF CLINICAL MEDICINE.

PART II.

GENTLEMEN:—The hypothesis of the origin of yellow fever in specific microscopic germs is a very old one, and the arguments in its favor and against it were summed up by La Roche, in his great work on yellow fever, as long ago as 1855. Ten years later an English writer assumed that the virus of this disease and all "primary zymotic poisons owe their origin to the development of the humbler and more minute, and therefore more subtle forms, of animal and vegetable life." The ground of the claim made by the microscopists whom I have named is that they have demonstrated what before them was only supposed to exist. But admitting the facts which they have brought to light, that the renal and the biliary ducts, and the blood of persons who have died of yellow fever, are filled with the organisms they describe, we shall await with interest the counter-proof that similar organisms are not found in malarial fever and other so-called "zymotic" diseases. Until then we cannot admit that they have demonstrated that any such condition as they describe is peculiar to yellow fever. To adduce the presence of these organisms in the biliary ducts as a cause of the jaundice in this disease is to overlook the capital fact that in yellow fever, so far from their being an accumulation of bile in that organ, it is singularly pale through the absence of blood from its vessels and of bile from its ducts, and that the characteristic jaundice of the disease is due to suppression of the secretion of bile, and not to its retention in the liver. In regard to the accumulation of fungoid spores in the tubules of the kidneys as a cause of the alleged "diminution or suppression of urine" which is said to be "such a common and fatal symptom of the disease," it must be remarked that this statement is not borne out by clinical observation, nor is it consistent with what we know of the effects of suppression of urine in other diseases. Renal obstruction occasions convulsion or deep stupor, a totally different condition from that which characterizes the ordinary mode of death from yellow fever. It is often a state of conscious resignation or of apathetic indifference, or of a cheerful, delirious revery; and even when the coma is profound it is not so uninterruptedly, but often alternates with delirium. These are not the phenomena of uræmia. While it is very certain that suppression of urine is generally a fatal sign, it is equally so that death in this disease constantly occurs independently of any such symptom, and while the urine is freely secreted. In certain epidemics a majority of fatal cases present this symptom, but in others it is not the uniform nor even the usual precursor of death. It follows, therefore, that neither uræmic symptoms nor suppression of urine, nor the assumed cause of their production, can be accepted as a sufficient explanation of the phenomena of the disease. It should not be lost sight of that obstruction of the kidneys as a cause of suppression of the urine and of uræmic symptoms in this disease is a generally accepted pathological fact; but pathologists have hitherto recognized as a cause of the obstruction an infarction of the renal tubules, with desquamated epithelium, which they did not discern hypothetically, but demonstrated with the microscope.

YELLOW FEVER NON-CONTAGIOUS BUT INFECTIOUS.

Having thus sketched an outline of our knowledge of the origin, diffusion, and essential cause of yellow fever, there remains to be noticed the question of its contagiousness, *i. e.*, its propagation by something generated in and emanating from the body of the sick, and conveyed to the well by direct contact or indirect communication with them through any medium whatever. These are the essential conditions of contagion as we see it illustrated in the dissemination of small-pox, measles, scarlet fever, typhus and typhoid fevers. Yellow fever is not propagated in this manner. In a circular issued by the Surgeon-General of the U. S. Marine Hospital Service, in September last, it is stated that "yellow fever patients have been treated in the marine hospitals at St. Louis, Cairo, Louisville, and Cincinnati without communicating the disease, the simple precaution having been taken to disinfect the clothing and other effects immediately on receiving the patients. It is a well-known fact that the unacclimated attendants upon the yellow fever patients at the New York Quarantine do not contract the disease." And the Surgeon-General is justified in adding that "yellow fever is transported by *things*, and not by persons considered apart from their clothing." A similar judgment has been pronounced by all physicians residing in our yellow fever cities, whose professional rank entitles their judgment to the greatest weight. The late Dr. Nott, who spent nearly all of his professional life in Mobile, and whose competency in such a question no one will doubt, states his judgment thus: "Yellow fever is not generated in the human system, *nor transmitted from one person to another in any way;* its germ or poison is generated outside of the human system, and is taken into the system after the manner of the marsh malaria poison. But, unlike the latter, its germ is portable, and may be carried from one point to another, and thus propagated." And again he says: "Few of the old and experienced physicians of the yellow fever zone believe in the contagiousness of the disease, and their convictions are based upon facts coming under their observation. During thirty years' residence in Mobile my experience corresponded with theirs." The late Dr. Warren Stone, of New Orleans, who probably had more experience of yellow fever than any man who ever lived, stated emphatically the exact truth when he declared, "I am perfectly convinced, beyond all doubt or hesitation, that, personally, it is not contagious. I *know* that it is not." In this city, at various times during nearly a century, local epidemics of yellow fever have occurred from time to time, every one of which was distinctly traceable to vessels from infected ports. Many of the patients were received into our ordinary hospitals, and perhaps not always with due care to leave behind their infected clothing; and yet in no single instance has the disease attacked their attendants or the surrounding hospital patients. Similar illustrations without number might be cited to prove the absolute incommunicability of the disease from the sick to the well. It would be very instructive to contrast with these facts innumerable

others in which yellow fever was introduced into healthy ports by vessels on board of which not a single person had at any time during the voyage suffered from the disease, showing that, although not contagious, its cause is highly infectious.

This distinction is not a deduction from scientific principles, nor is it a convenient hypothesis; it is a plain lesson taught by plain facts, which, however, it required a modicum of common sense to interpret, seeing how difficult it is to distinguish between the agency of a ship and its crew, and between people and their clothing. But the truth has been made plain by the results of quarantine already adverted to. When the ship and its cargo, its crew and its passengers, have been purified of the perilous stuff they brought with them from yellow fever ports, they have become harmless in our docks and our houses.

These plain and well-established lessons were unheeded in the summer of 1878 at the port of New Orleans. Infected persons and goods found their way into the city, and in due time the germs which they introduced multiplied and spread the disease throughout the city. The panic-stricken people sought refuge in flight, and they, with their infected goods, spread the infection along the line of their exodus, eastward and northward to the Ohio River, and beyond it, until nearly 15,000 persons were sacrificed to the incompetency or connivance of those officials whose duty it was to protect the country against the entrance of the destroyer. And yet in all this desolation we do not learn that anything has occurred to prove the personal contagiousness of yellow fever. As a single illustration of the mode in which it spread, I may cite the case of Grenada, Miss., a town of 2,500 inhabitants, of whom 1,040 were attacked with the fever, and 326, or more than 30 per cent., died. The fever first broke out in a family of which the mother had been to the railroad depôt to see her daughter off to a neighboring town. The train was from New Orleans, where the fever was then raging, and the mother, it is thought, occupied a seat in the railroad car alongside of her daughter for about twenty minutes, while the New Orleans passengers were taking breakfast.

THE RAPIDITY OF THE DIFFUSION OF THE YELLOW FEVER POISON.

In the history of the late epidemic, as of many previous ones, there is much to illustrate the rapidity and extent of diffusion of the yellow fever poison. These qualities seemed to lend a strong probability to the zymotic hypothesis of the disease, for they seem to resemble those of fermentations as it occurs in certain liquids and in bread dough. "A little leaven leaveneth the whole lump," and a single infected bale of goods or garment may infect a whole city. The disease was introduced into New Orleans as early as May 23, 1878, and before July 12th, thirty or forty deaths from it had occurred, the reports of which were at the time suppressed. It broke out in the form of a series of groups of cases, each being connected with some other by personal association or by exposure in the same locality, and from these separate foci the conflagration spread over the whole city. Thence it was carried "in the clothing or about the persons of people going from the infected districts. In other instances, it was conveyed in such fomites as cotton bagging, or goods of some description, or bedding and blankets" (Dr. Bemiss's Report).

A LOW TEMPERATURE FATAL TO THE PROGRESS OF THE DISEASE.

Finally, as a high temperature is necessary to develop the disease from its germs, so a low temperature suspends or destroys their activity and arrests the progress of yellow fever epidemics. You must have noticed that, on the first occurrence of frost, the spread of the recent epidemic abruptly ceased, first upon the northern limits of the area within which it had prevailed, and rapidly thereafter at points more and more southwardly, until at last it ceased in New Orleans. But experience has shown that in this way it is not always absolutely killed, that its activity may be only suspended, and that where it has prevailed in the autumn it will perhaps reappear the following year at the same season, if the weather favors its revival. In that case it usually assumes a milder type, and may even reappear once more with lessened virulence the succeeding year, or until it fades entirely away. Again, a transient period of cold weather does not always put an end to an epidemic of yellow fever; if the temperature rises again, the disease may break out anew. But it should be remembered that, even in our southern seaboard cities, the subsidence of an epidemic is not always delayed until frost: and in Cuba, where frost is unknown, yellow fever subsides, like other epidemics elsewhere, for want of food to feed on, since all who are susceptible of having the disease have already paid their tribute to it.

THE PATHOLOGY OF YELLOW FEVER.

Having thus sketched the conditions under which yellow fever arises and prevails, we might proceed to consider the symptoms which characterize it. To render them intelligible, however, we should first learn what alterations of function and structure the disease occasions in the organs that inhibit its distinctive symptoms. I shall attempt nothing further on the present occasion. The symptoms point directly to the blood, the stomach, and the kidneys as organs which are most deranged in their structure, and so, in point of fact, they are. When venesection was practised in the treatment of yellow fever, it was observed that the coagulability of the blood was diminished in proportion to the gravity of the attack, and that the serum was yellowish or reddish yellow. It has shown more recently that its natural alkalinity has been replaced by acidity; that it generally contains a notable proportion of urea, especially in the advanced stages of the disease and after death; indeed, according to one observer, "it is seventy times more abundant in the yellow fever blood than in normal, healthy blood" (Jones). According to the same author, Dr. Joseph Jones, cases attended with suppression of urine are "characterized chiefly by great diminution of the fibrin, which, in some cases, he found to be not one-hundredth of the usual amount; and by the abnormal amounts of urea and ammonia, and other sulphates, phosphates, and extractive matters." He was unable, "even after the most diligent search with the highest magnifying powers, to discover in the fresh blood of yellow fever patients any living animalculæ, or vegetable cells, or sporules, or pigment-granules." The latter statement should be weighed against that of Drs. Richardson and White, who detected an obstruction of the kidneys by fungoid spores. As to the microscopical appearances of the blood itself, there is no doubt that a large proportion of the red corpuscles is found to be loosely scattered, instead of forming rouleaus, and that many are also disintegrated, the degree of

these changes varying with the malignity of the disease.

THE CAUSE OF BLACK VOMIT.

Identical, but more complete changes are found in the blood that constitutes the black vomit. It is not always black at first. It is due to two causes: the liquefaction or disorganization of the blood, and the inflamed and softened condition of the gastro-mucous membrane. Vomiting in this disease is at first bloodless, and is due to inflammation of the stomach. As the liver secretes but little bile, the rejected fluid is watery and mucous, and has at first an alkaline reaction. But later it becomes acid, and is shown, by appropriate tests, to contain muriatic acid. Its acidity is so great that it creates an acrid, burning sensation in the throat and stomach, and continues to do so even after basins of it have been vomited. When allowed to settle, the vomit separates into two portions, of which the lower is grumous and almost black, and the upper is as clear as pure water. On microscopical examination this deposit is found to consist of loose and disintegrated red-blood cells. "No animalcules are discoverable in either fresh or putrescent black vomit; but, as it decomposes, certain fungi are disclosed, which are most frequently, if not always, developed outside of the body during fermentation" (Dr. M. Michel). Urea is said to have been found in the contents of the stomach. The condition of the stomach is inflammatory, with a greater or less tendency to softening of its mucous coat. Sometimes it is of a deep brown color from the blood accumulated in its veins, and altered by the acid contents of the organ. When the black vomit has been copious, the vessels of the stomach are empty, and the mucous membrane pale. Specks or spots formed by ecchymoses or effused blood are often observed. The organ usually contains more or less of the "black vomit," varying in quantity from three or four ounces to a pint. It deserves notice that the inflammation of the stomach is pretty equally diffused throughout its mucous coat, and that there is no evidence that its glandular apparatus is specially involved. In this respect the condition of the organ contrasts remarkably with its state in remittent fever, in which disease the mucous glands of the organ at its pyloric end are greatly enlarged.

THE YELLOW FEVER LIVER.

Not less dissimilar is the liver in yellow fever from that which occurs in remittent fever. In the latter the organ is enlarged, distended with blood and with bile, and presents a characteristic dark bronze color; but in yellow fever the organ is pale, and appears to be devoid of even its normal proportions of bile and blood. This peculiar appearance was first described by Louis, in his account of the epidemic at Gibraltar in 1828, as "being sometimes of the color of fresh butter, sometimes of a straw color, sometimes of the color of coffee and milk, sometimes of a yellowish-green, mustard, or orange color." The change may probably be ascribed to a drainage of the blood of the liver into the stomach; it is in nowise a fatty degeneration, for in that condition the cohesion of the liver is softened, whereas in this it is increased or unaffected. To whatever cause it may be due, it is certainly peculiar to yellow fever. The gall-bladder is usually empty, or contains only a little viscid bile. These facts harmonize with the presence of an excessive quantity of biliary coloring matter in the blood, the urine, the skin and other tissues.

The kidneys do not present in their general aspect any characteristic appearances. Like the other tissues, they are yellow, but they are neither enlarged nor softened. On microscopic examination they present only the ordinary lesions of desquamative nephritis in their tubular portions; that is to say, the tubules are distended with epithelium, and more or less with albuminous casts. But this infarction of the organs is sufficient to account, in part at least, for the albuminous quality of the urine in the disease, and for the presence of so large a proportion of urea in the blood.

No other lesions found after death in this disease appear to be related to its symptoms. In the cerebro-spinal centres no alteration is observed except, perhaps, nervous engorgement. The spleen is not enlarged, nor is it softened out of proportion to the other tissues. Half a century ago Louis described the heart as being flabby with diminished cohesion of its muscular tissue. Riddell and others long ago laid much stress upon the quite constant molecular degeneration, and quite recently Dr. Joseph Jones claims to have determined, both by chemical analysis and microscopical examination, that the heart undergoes acute fatty degeneration in yellow fever. However this may be, it is very certain that during life no symptoms point to any special debility of the heart, such as would be occasioned by such a lesion. Indeed, "it has been known to preserve an apparently normal state, even coincidently with other portentous symptoms, and the pulsation of the heart may continue some time after all the respiratory movements have ceased." This clinical fact is of greater weight in establishing the essential integrity of the heart-muscle in this disease than are any number of microscopical observations that go to demonstrate the degeneration of its tissue in proving the organ to be functionally incapable.

In conclusion, gentlemen, I have endeavored to impress upon you the following propositions:

1. That yellow fever originates nowhere but in the West Indies.
2. That its morbid poison is conveyed elsewhere in ships and fomites.
3. That, wherever conveyed, a high temperature is essential to its propagation.
4. That a strict quarantine is always efficient in preventing its dissemination.
5. That it is not contagious.
6. That its essential cause cannot be isolated or defined, but must be assumed to be a specific poison.
7. That this poison in the system acts primarily in two ways, by disintegrating the blood and inflaming the stomach; and that, secondarily, it tends to impair the eliminating function of the kidneys.

A NOVEL METHOD OF SMUGGLING.—The tricks of the smuggler are certainly curious. A wagoner stopped, a short time ago, before the custom-house of Neuville aux-Jontes, a town in the north of France, and asked for a permit to enter the town. When the wagon was inspected, the bodies of two dead horses, far advanced in putrefaction and emitting a horrible odor, were found in it. The very strangeness of the load excited suspicion, and a closer examination revealed the fact that the intestines of the animals had been removed and replaced by tobacco. The quantity seized weighed 485 pounds. The smokers of that town have reason to congratulate themselves on their escape.

Original Communications.

THE TREATMENT OF HEMORRHAGE IN ABORTION.

By W. T. LUSK, M.D.,

PROFESSOR OF OBSTETRICS, AND DISEASES OF WOMEN AND CHILDREN IN THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

[Read before the Medical Society of the State of New York, February 5, 1879.]

I AM well aware that the subject I have selected possesses none of the charms of novelty. The ordinary necessities of practice make it one in which each individual member of this Society has had a large and varied experience. Nevertheless, the question involved in the title of this paper is never raised for discussion among professional men without bringing into strong relief the divergent opinions regarding the best methods of procedure. The directions contained in text-books are for the most part vague and unsatisfactory. Thus it comes to pass that the young practitioner, who finds himself for the first time brought face to face with a hemorrhage associated with abortion, is not a little embarrassed when he asks himself whether in the special case he is simply to use the vaginal douche, or whether he shall tampon, or whether he shall at once proceed to extraction of the ovum. Nor is this feeling of perplexity confined to the tyro alone. Hardly a month goes by that some poor exsanguined creature is not sent half moribund to my uterine ward in the Bellevue Hospital, a victim of indecision and halting practice on the part oftentimes of the senior members of our craft.

With faulty management, death from abortion is by no means an infrequent occurrence. The deaths from this cause, reported between the years 1867 to 1875 inclusive, to the Bureau of Vital Statistics in New York, were one hundred and ninety-seven, a number which falls in all probability considerably short of the truth by reason of the many circumstances which precisely in this condition tempt to concealment. The total number of deaths during the same period from metria were, according to the reports rendered, 1,947. Hegar reckoned one abortion to every 8 to 10 full-time deliveries,* a proportion, if correct, which would seem to show a mortality from abortion hardly second to that of puerperal fever itself. In addition to fatal cases, the large amount of uterine disease traceable to bad management at the time of abortion contributes still further to the grave responsibility which rests upon the physician.

And yet, excluding cases of criminal malpractice, and wilful neglect on the part of the patient, an abortion, unless it occurs as a complication to otherwise dangerous diseases, ought to be free from peril. I have made the exceptions advisedly. M. Tardieu found that in 116 cases of criminal abortion of which he was able to ascertain the termination, 60 died.† A few years ago a lady laughingly told me that she had made the trip from Paris to Havre, on her way to this country, the day following the occurrence of an abortion, in spite of the protestations and entreaties of her physician. Since then she has died of peritonitis consequent upon a similar act of imprudence.

In hospital practice where patients are under direct control, deaths rarely if ever occur. Dr. Johnston reports that during his seven years' mastership of the Rotunda Hospital, there were 234 cases of abortion. One of these died, but it was from mitral disease of the heart. In the history books of the Bellevue Hospital I find a similar clean record. That like favorable results have been obtained in other hospitals, and by many physicians in private practice, I do not doubt. Indeed, it is astonishing how large a proportion of cases do well under rest in bed, and careful nursing without the intervention of the physician. A lady belonging to my clientèle, aborted at the fourth month during the past summer, while at the sea-side. The physician of the place called daily, but never once came near the bedside of the patient. She lost a great deal of blood, but as she happened to be a strong woman, and as the entire ovum was expelled, she made a rapid recovery.

Now it seems to me such cases are calculated to mislead and to encourage a *laissez faire* practice in every way to be deprecated. As I look over the records of Bellevue Hospital I find a number of patients treated a few years ago with rest, ergot, and the vaginal douche. They all recovered, it is true, but many with long histories of repeated hemorrhages, fetid discharges, and local inflammations. They were doubtless discharged finally with subinvolution of the uterus, and uterine and cervical catarrh; to add to the already overgrown contingent of helpless broken-down women who seek relief in our public dispensaries. I have nothing but words of praise and honor for those who have contributed so much in the past ten years to perfect the practice of gynecology. I regret, however, that the flattering interest their labors have excited, have tended to weaken the interest in the sister department of obstetrics. While our young men seem all desirous to make a specialty of the diseases of women, it is hard to obtain a hearing for the statement of the very trite fact that it is faulty midwifery which gives to gynecology nearly all its importance.

During the past five years I have left very few cases of abortion to the unaided efforts of nature. I not only never have had occasion to regret intelligent interference, but contrasting my later cases with those in which the Fabian policy was adopted, the favorable results are such as to impel me to missionary efforts in behalf of bold and prompt procedure. I do not propose to take up the time of the Society with the relation of illustrative cases. I should only repeat what has been frequently paralleled in the experience of others. I shall simply endeavor to formulate the rules of practice, which, in the varied contingencies presented to us, have seemed to me satisfactory.

As it is practically desirable to make some distinction between interruptions of pregnancy taking place in the earlier and later months previous to the time when the child becomes viable, I shall use the term abortion to designate the discharge of the ovum in the first three months, and apply the expression "immature delivery" to the completion of labor from the fourth to seventh month inclusive.

THE TREATMENT OF INEVITABLE ABORTION.

In the first two months little treatment besides rest in bed for a few days is ordinarily required. In the exceptional cases the treatment does not differ from that in the hemorrhages of the non-pregnant uterus.* In the third month we distinguished:

I. Cases in which the ovum is thrown off entire.

* Hegar, Beiträge zur Pathologie des Eies. Monat Schrift, für Geb.-Kunde. Bd. XXI., Supplement-Heft, S. 35.

† Vide T. Gallard, De l'Avortement au point de vue Medico-légal, p. 45.

* In the discussion following the reading of this paper Dr. Barker drew my attention to the occasional severity of hemorrhages in the first two months of pregnancy.

II. Cases in which the sac ruptures, and the embryo escapes with the discharged fluid.

1st. When in the third month the ovum is thrown off without rupture of the fœtal membranes, the hemorrhage rarely assumes dangerous proportions. The uterine contractions press the ovum into the cervix, which dilates and, in primiparæ, becomes somewhat elongated. As the ovum descends, the body of the partially emptied uterus retracts. The effused blood coagulates in thin layers between the ovum and the uterine walls. The ovum forms a tampon which fills the cervix and restrains the hemorrhage.

No active treatment is therefore demanded. A vaginal douche, consisting of a pint of tepid water, may be used twice a day as a measure of cleanliness. All attempts to disengage the ovum with the finger should be avoided, as endangering its integrity. The vaginal tampon is unnecessary. It should only be used as a safeguard, where patients live at a distance from medical assistance, and can only be visited at long intervals. As it is never certain that the rupture of the ovum may not take place during the course of its expulsion the tampon may in such cases be employed in anticipation of a possible increase of hemorrhage from sudden collapse of the membranes. In multiparæ the ovum seldom remains long in the cervix. In primiparæ, on the other hand, the tardy dilatation of the os externum may lead to a retention of the ovum in the cervix lasting for days. As this condition is extremely painful, it is allowable to dilate the os externum with the index finger, or even by incisions through the ring of circular fibres which furnish the cause of delay.

Small portions of the decidua vera sometimes remain after abortion attached to the uterine walls. They commonly do no harm, but are discharged later with the lochial secretion.

2. When the sac ruptures, and the *liquor amnii* escapes, the removal of the pressure exerted upon the uterine wall by the intact ovum is followed by profuse hemorrhage from the utero-placental vessels.

The diagnosis of rupture may be made either from finding the embryo in the clots, or in the case of a dilated cervical canal by the direct examination of the uterine cavity. Although after rupture portions of the ovum may still be felt, we miss the smooth surface of the fluctuating amniotic sac. When the embryo cannot be found, and the cervix is closed, profuse hemorrhage alone would render the occurrence of rupture extremely probable.

The principles of treatment in these cases are very simple. The indications are to check the hemorrhage, and to empty the uterus. As to the best methods of attaining these results opinions widely differ.

When cases are treated with rest in bed, the internal administration of ergot, and cold cloths applied to the abdomen and vulva, the loss of blood is usually considerable, but the most of them terminate favorably. In some, however, the hemorrhage may prove so severe as even to threaten life. Now, it is in every way desirable, for the future welfare of the patients, to restrain the hemorrhage within the narrowest limits. The most effectual means of arresting the hemorrhage, is to clean out the uterus. If, therefore, the physician finds at the time of his visit the cervix sufficiently dilated to allow him to introduce his finger into the uterus, he should not hesitate at once to remove the retained portions of ovum. The operation does not require any considerable amount of technical skill, while the immediate results are in the highest degree satisfactory. The patient should be placed cross-wise in bed, with the hips drawn well over the edge. The legs should be flexed, and the thighs held, where assistants can be obtained, at right angles to the body, to secure the greatest degree of relaxation to the perineum and abdominal walls. The right index finger should be then passed into the vagina and through the cervical canal, while the left hand placed upon the abdomen gradually presses the uterus down into the pelvic cavity, so as to bring it within reach of the examining finger.* This portion of the act should be performed slowly, while every effort is made to divert the attention of the patient. Hasty manipulations invariably excite, in the most willing of patients, the full resistance of the abdominal walls. When the point of the finger reaches the os internum it is sometimes necessary to pause for a minute or two, to await a sufficient degree of dilatation to allow the finger to pass beyond the insertion of the nail. When the right finger is used, it should be made to pass upward with its dorsal surface along the left side of the uterus to the opening of the Fallopian tube, thence across the fundus to the right side. As the tip of the finger passes down upon the right side it presses the detached ovum before it toward the os internum. By the time the finger has thus made the circuit of the uterus, the ovum is pressed into the cervical canal, and thence passes easily into the vagina. With the left finger the movement is exactly the reverse. The finger passes first with its dorsal surface directed to the right side, from the right Fallopian tube across the fundus, and downward along the left side of the uterus. The only resistance the finger meets is at the placental insertion, where a certain amount of manipulation is required to complete the detachment.†

When the uterus cannot be pressed down within reach of the index finger by force exerted above the symphysis pubis, it is permissible to introduce the hand into the vagina; but, in such a case the fingers are apt to become cramped, and all freedom of manipulation to be destroyed. A better means of overcoming the difficulty consists in the administration of an anæsthetic. In cases of extreme anæmia, chloroform should be discarded as too dangerous. Ether, however, has often seemed to me, on the contrary, to possess a stimulating action, and its use to be followed by increase in the volume and force of the pulse. The relaxation produced by the anæsthetic makes it easy to depress the uterus down to the pelvic floor, where it can be reached with comparative ease.

After the removal of the ovum, the cavity of the uterus should be washed out with a stream of tepid carbolized water, in order to bring away any small detached portions of the ovum.

In the manual extraction of the ovum, deliberation and perseverance are the main elements of success.

If, when the patient is first seen by the physician, the cervix is not sufficiently dilated to allow the finger to pass without force, the vaginal tampon should be employed.

The tampon restrains the hemorrhage, stimulates the uterus to contraction, and allows time for the em-

tampon is made is a matter of indifference, provided only it fills the vagina to its utmost capacity. In cases of urgent need, a soft towel, handkerchiefs, strips of cotton cloths, dampened cotton, wool and the like, may be seized upon to meet a temporary emergency. The time-honored sponge, on account of its porosity, is least deserving of favor. When, however, the physician proposes to leave his patient for a number of hours, the mere hasty filling of the vagina through the vulva will not suffice. On the contrary, the highest degree of safety can only be secured by the closest observance of the rules of art.

The first essential of a good tampon is, that it be carefully packed around the cervix uteri, and fill out the more dilatable upper portion of the vagina. This can be accomplished only by the aid of a speculum. The method I usually employ is one, the credit of which, so far as the general features are concerned, I believe belongs to Dr. Marion Sims. It consists in soaking cotton-wool in carbolized water, and then, after pressing out any excess of fluid, in forming from the carbolized cotton a number of flattened disks about the size of the trade dollar. The patient is then placed in the latero-prone position, and the perineum retracted by a Sims' speculum. The dampened cotton disks are introduced by dressing-forceps, and under the guidance of the eye are packed first around the vaginal portion, then over the os, and thence the vagina is filled in from above downward, until the narrow portion above the vestibule is reached. No other plan of tampon with which I am acquainted can compare in solidity and effectiveness with this. Its removal is accomplished by the detachment with two fingers of a portion at a time. This part of the procedure is moderately painful. Many methods have been suggested to overcome, in the removal, the necessity of introducing the fingers into the vagina. A very ingenious one consists in attaching the cotton to a piece of twine, so as to form a kite-tail, which can be withdrawn by simply making tractions upon the extremity of the string left hanging outside the vulva. Prof. I. E. Taylor uses a roller bandage. It is efficient, and, like the kite-tail described, can be easily removed.

Before the introduction of the tampon the vagina should be thoroughly washed out. No tampon should be allowed to remain in the vagina much over twelve hours. Immediately after withdrawing the tampon, before proceeding to the examination of the uterus, the vagina should be cleansed by an injection of tepid carbolized water (gr. xxx. ad Oj.). Often, after the removal of the tampon, the ovum is found in the upper portion of the vagina, or filling up the cervix. If this is not the case, and the cervix is not dilated, so that manual extraction may easily be performed, the tampon should be reintroduced.

It is customary from the outset to sustain the action of the tampon by the administration of ergot, either in the form of the fluid extract (thirty drops every three to four hours), or of a solution of ergotine given hypodermically. (Ergotine, gr. xij., glycerine, ʒ i., ten minims twice in the twenty-four hours.) In women with abundant adipose tissue, the injection should be made into the subcutaneous tissues of the lower abdomen. In others, the outer surface of the thigh should be selected.

If the patient is collapsed from loss of blood, after tamponing, opiates, tea, and alcoholic stimulants should be administered; the latter in small, but frequently repeated quantities, until the cerebral anæmia is relieved, and the capillary circulation restored.

If after its removal the cervix is found not to be dilated, the tampon may be reintroduced and left *in situ* for another period of twelve hours. The employment of the tampon is not, however, to be recommended for a period much exceeding twenty-four hours. Its continued use is apt to irritate the vagina. In spite of carbolic acid it acquires an offensive odor. It generates septic matters which, in the long run, creep upward through the cervix into the uterine cavity, and produce decomposition of the ovum. I prefer, therefore, in cases of undilated cervix, after twenty-four hours of vaginal tamponing, to resort to sponge-tents. The tent should be long enough to pass well up through the os internum. After six to twelve hours the tent should be removed, and, after a preliminary vaginal douche, manual extraction be proceeded with in accordance with the rules already given.

In manual delivery it is desirable to remove the decidua as well as the ovum. When the cervix is patent this is easy, as the decidua is then detached from the uterine walls. When the cervix is unchanged the detachment is usually incomplete. In such cases it is advisable, therefore, to try first the tampon before the sponge-tent, as the former stimulates the uterus to contract, and promotes the separation of the decidua, even when it fails to secure the discharge of the ovum.

Inside the uterine cavity ovum-forceps should be used with great caution. I have discarded them altogether. In the first place they are dangerous. In the second place they are unnecessary. When, however, the retained portions of ovum have left for the most part the uterine cavity, and occupy the cervical canal, the delivery may at times be advantageously hastened by placing the patient upon her side, and, with the cervix well brought into view by a Sims' speculum, applying the ovum-forceps, under the guidance of the eye, within the cervix to the sides of the placenta (Skene). But great care requires to be exercised not to break away the fragile structures, and leave material portions behind.

Under like circumstances Hoening* recommended a modification of Crede's method for expression of the placenta. With the patient lying upon the back, the operator, according to Hoening, should seek to compress the body of the uterus between the left hand, laid above the symphysis pubis, and two fingers of the right hand, introduced into the vagina. The measure is only practicable when the ovum has, to a great extent, passed from the uterine cavity. As it is somewhat painful, and requires, for success, lax abdominal parietes, it possesses a limited range of applicability.

Treatment of Neglected Abortion.—When, following abortion, the uterus has once been completely evacuated, hemorrhage ceases. A slight lochial discharge persists for a few days during the period in which the uterine portion of the decidua vera completes its period of repair. If, therefore, a patient comes to us two to three weeks after the supposed conclusion of an abortion, with the story of recurrent hemorrhages taking place in the rule whenever she leaves her bed and assumes the upright position, it may be assumed, with an approach to certainty, that portions of the ovum still remain within the uterus. Oftentimes a fetid discharge points to the fact that decomposition has been set up. The absorption of septic materials may furthermore become the source of chills, of fever, and of great uterine tenderness. In most cases, with rest in bed, the contents are discharged by suppuration,

* Hoening, *Schmidt's Jahrbücher*, Bd. viii., S. 213.

and recovery ultimately takes place, but only after a slow protracted convalescence, during which pelvic cellulitis and pelvic peritonitis occur as not uncommon complications. Hemorrhage, peritonitis, and septicæmia may, however, bring the case to a fatal issue. The removal of the retained placenta and membranes is therefore indicated not only as a measure calculated to promote recovery, but to avert possible danger to life.

With regard to the operation for removal, the rules already given are applicable. The following peculiarities should, however, be borne in mind. In case the retained portions are undecomposed the cervix is usually found closed, and requires preliminary dilatation with the sponge-tent. When decomposition has once set in, the os internum will, in the rule, allow the finger to pass into the uterus. When a decomposed ovum is removed by the finger, a chill and a septic fever, which rapidly exhausts itself, however, is apt to follow in the course of a few hours. This chill and fever result from the slight traumatic injuries inflicted by the finger upon the uterine walls, whereby the capillaries and lymphatics become opened up to the action of the septic poisons. The fever ends in a short time because the reservoir of supply is removed with the *débris* of the ovum. If the uterine cavity, after the operation, is carefully washed out with carbolized water, the septic fever is often averted. The beneficial results following the complete emptying of the uterus in these cases are so decided, that of late years I have not allowed myself to be deterred from proceeding actively, even when perimetritis and parametritis in not too acute a form already existed. In practice, multitudes of examples show that the products of inflammation situated in the pelvis, do not absorb so long as putrid materials are generated in the uterine cavity.

The removal of a fibrinous polypus, owing to its smoothness and the small size of the pedicle, is often a Sisyphus task. The separation can only be successfully accomplished when the palmar surface of the index finger presses from above upon the point of attachment. This necessitates a choice of hands. Thus, when the polypus is situated to the right, the right index finger should be employed; and the left index finger when the polypus is situated to the right. After the detachment is complete it is necessary to press the polypoid body firmly against the uterine walls and proceed with its withdrawal slowly. If, as sometimes happens, the polypus slips from under the finger, it is necessary to pass the finger again to the fundus of the uterus, and repeat the attempt. Small portions, not larger than a pea, can be washed out by the uterine douche. When the polypus is attached near the os internum, the latter will be found patulous, but, when it is well up in the body of the uterus, dilatation with sponge-tents is a frequent prerequisite to removal.

A good deal of testimony has been offered of late, by Skene, Spiegelberg, Mundé, Boeters, and others, in favor of the use of the curette for the removal of retained portions of ovum. To whom, exactly, the honor of this method belongs it is difficult to say. Accidentally, I read in a record book of Bellevue Hospital, a few days ago, an account of the operation performed by Dr. Fordyce Barker in 1870. With the curette the dangers from dilating the os and manipulating the uterine cavity are avoided. For myself, however, I confess I never feel quite safe until my [illegible] has made the complete tour of the uterine cavity. Still, the method has its advantages in cases where the removal of bodies retained within the uterus is complicated by the existence of extensive peri- and parametritis.

The Treatment of Immature Deliveries (fourth to seventh month).—Distinctive of immature deliveries are: painful periodic uterine contractions, which can be recognized by the hand applied above the symphysis pubis; rupture of the membranes, and discharge of the fœtus; the complete formation of the placenta and umbilical cord; while in abortion the uterine contractions are obscure, the placenta rudimentary, and the ovum is frequently expelled entire. In the treatment of immature delivery the tampon may usually be discarded. After rupture of the membranes and expulsion of the fœtus, the hemorrhage should be controlled by grasping the fundus of the uterus in the hand through the abdomen and compressing the uterine walls firmly together.

The passage of the fœtus opens the uterus so as to allow, in the fourth and fifth month, the introduction of two fingers; in the sixth and seventh month, that of the half-hand. In case compression of the uterus does not arrest the hemorrhage and expel the placenta, the cord should be carefully followed to its insertion, to determine the side upon which the implantation exists. If the placenta is implanted upon the right side, two or four fingers of the right hand, according to the degree of cervical dilatation, should be passed up along the left side of the uterus, across the fundus to the placental site. The detachment should be effected with the tips of the fingers, and the placenta pressed downward as the fingers descend along the right side of the uterus. The left hand should be employed, in the reverse direction, when the placenta is situated to the right.

In conclusion, the following summary of the views which have been expressed is respectfully offered:

1. In the first two months an abortion needs no special treatment. The hemorrhages of early date are amenable to the same principles of treatment as those from the non-pregnant uterus.

2. In the third month no treatment is required when the ovum is expelled with intact membranes.

When the membranes rupture previous to expulsion, and hemorrhage takes place, immediate removal should be attempted, provided the cervix be sufficiently dilated to admit the index-finger. When the cervix is closed, the tampon should be tried for twenty-four hours. If the tampon proves ineffective, the cervix should then be dilated with a sponge-tent, and the ovum removed with the finger. The finger should pass up along the side of the uterus, across the fundus, and complete the circuit of the uterine cavity.

3. In cases of neglected abortion, retained portions should be removed by the finger or the curette. When the ovum is decomposed, no dilatation of the os is usually necessary. When the ovum is fresh, the preliminary use of sponge-tents is usually demanded if manual delivery is resorted to.

4. Fibrinous polypi, when situated near the os internum—a rare occurrence, indeed—arrest the involution of the lower portion of the uterus. The os is [illegible] the finger. When the polypus is attached to the fundus, the cervix is usually closed. Small, smooth, slippery bodies, like fibrinous polypi, are rarely to be detached, unless the finger operates from above, so that the choice of hands depends on the side to which the polypus is attached.

5. In immature deliveries hemorrhage can usually be controlled without the tampon, by compression of the uterus, and, in cases of delay, by the manual extraction of the placenta.

INDEX OF AUTHORS.

Hegar: Beiträge zur Pathologie des Eies. Mon.-Schrift für Geb.-Kunde. Bd. XXI. Supplement Heft. S. 1.

Dohrn: Die Behandlung der Fehlgeburt. Volkmann's klinische Vorträge. No. 42. 1872.

Hoening: Zur Pathologie und Therapie d. Abortus. Scanzoni's Beiträge. Bd. VII. 213. 1873.

V. Huter: Compendium der Geb.-Operationen. Leipzig, 1874.

Skene: THE MEDICAL RECORD. 1875. p. 59.

A. R. Simpson: Complete Evacuation of the Uterus after Abortion. Edin. Obst. Trans. Vol. IV., p. 221.

Spiegelberg: Lehrbuch der Geb.-Hülfe. 773. 1877.

Mundé: Centralblatt. No. 6. S. 1. 1878.

Reports of Hospitals.

CHARITY HOSPITAL.

SERVICE OF DR. F. N. OTIS.

PROBABLE SYPHILITIC INFECTION WITHOUT THE CHARACTERISTIC INDURATION ABOUT THE INITIAL LESION.

THE patient gave the following history: About five weeks previous he had connection (for the first time in a number of months). This was followed by a slight abrasion on the penis, of which he took very little notice. Two weeks afterwards he again had connection, and a few days later the present sore made its appearance, and the glands in the groin became enlarged. Upon examination there was found upon the under surface of the penis, near the frenum, a sore somewhat circular in outline and considerably more than half an inch in diameter. This had recently been cauterized by the house-surgeon, and was now covered by a crust. It was stated, however, that the sore presented very much the same appearance before cauterization, its surface being well scabbed over. Dr. Otis remarked that if this had been a chancroid there would probably have been a considerable destruction of tissue, while here there was little, if any such loss; although the activity of the inflammatory process in chancroid varied greatly in different cases, and was sometimes of a very low grade. On the other hand, there was nothing whatever of the characteristic induration ordinarily associated with a true syphilitic sore, usually occurring in from ten days to three weeks after exposure. Still it would not do to judge from this fact that the presenting lesion here was not a syphilitic one. Although there was no induration, the glands of the left groin were found to be enlarged, insensitive, indurated—in other words, typical of syphilitic infection. This is the condition which Ricord has called "the venereal period." No gland enlargements were discovered at other points, and no trace of any eruptive trouble was present.

The chief points of interest about the case were the early affection of the glands of connection, and the difficulty of explaining this glandular induration without, apparently, any induration being previously associated with the initial lesion. Dr. Otis accounted for both these points on the supposition that in this particular instance, owing to certain peculiar circumstances, the syphilitic virus had reached the lymphatic system of the patient in an unusually short space of time. It was thought that the implication of the glands of connection would take place in a longer or shorter period in any given case, according as the distance from the initial sore to the underlying lymphatic vessels of the part was greater or less. It had been proved by anatomists that the lymphatics approach very near the surface in the vicinity of the *frenum preputii*, being just underneath the epithelium, and the occurrence of the sore in this situation here would satisfactorily explain the promptness of the enlargement of the inguinal glands, as well as the absence of induration about the initial lesion. The reason why the latter had not become indurated was because, on account of its position, there had not been sufficient time for an accumulation of cells at this point before the lymphatic vessels of the part had been reached by the syphilitic infection. Ordinarily this took place in from two to three weeks, and Ricord used to say that, if a sore had not become indurated within three weeks after exposure, it would never become so. This was certainly true as a general rule, although in very rare instances induration had been known to occur after a longer period than this. One case was on record in which it was said to have occurred seventy days after exposure.

In support of the above idea Dr. Otis mentioned the case of a very noted southern surgeon who, while performing some operation upon a syphilitic patient, received a slight puncture in the end of his finger by a spicula of bone. Within twenty-four hours there was a line of swelling and slight redness extending up the arm. The glands of the axilla at once became enlarged and indurated. Then followed a well-marked general roseolous eruption, and the other ordinary manifestations of secondary syphilis; and still later tertiary symptoms appeared. At no time was there any induration about the initial lesion upon the finger, and the only reasonable explanation of the whole course of the phenomena in this instructive case was that the syphilitic virus had been introduced at once into the lymphatic system, without any preliminary interval, as is ordinarily the case. It would be interesting to watch the future of the present patient in order to see whether or not a correct view of its true character had been taken.

PHIMOSIS FROM PROBABLE CHANCRE.

The patient had had connection seven weeks before, and this was followed by a sore which he said looked like a simple raw and moist surface. Five weeks later, while he was drinking very hard, phimosis came on, and had continued up to the present. When admitted to the hospital, four days previous, the penis was greatly swollen and the redness of the surface extended almost to the pubes. The organ was now much reduced in size, and the redness was confined to the region near the glans; but there was still a considerable purulent discharge. The house-surgeon had been making applications of a solution of nitrate of silver, and, in consequence of the marked improvement that had taken place, had refrained from cutting.

Dr. Otis remarked that phimosis might depend upon either chancre, chancroid, gonorrhœa, or balanitis (inflammation of semi-mucous membrane covering the glans penis). On examination it was found that the inguinal glands on one side were enlarged and indurated, and although their condition was not so characteristic of syphilis as those in the preceding patient, it was sufficiently marked to render it, in connection

with the history of the sore, probable that the man had an infecting sore upon his penis. No eruption or glandular enlargements in the cervical or epitrochlear regions, however, could as yet be detected.

In all cases where chancroid was present or suspected, it was best to avoid a cutting operation if possible, on account of the danger of the raw surfaces becoming inoculated with the chancroidal virus; and in view of the improvement that had already taken place, Dr. Otis thought it was not necessary to operate here, at least not unless some more urgent symptoms should arise. As to the treatment, he believed that it should be very simple. The patient should have perfect rest in bed, and all sources of irritation be kept away from the affected parts. Locally the two indications were simply to keep the latter perfectly clean and to apply some efficient local stimulant and disinfectant. For this purpose carbolic acid, of not greater strength than forty drops to the ounce, would probably be preferable.

OBSCURE TERTIARY SYPHILIS.

This was the case of a young girl, to whom Dr. Otis's attention was called about three weeks previously. At that time patient lay with her knees drawn up, and intolerant of the slightest pressure over the left side of the abdomen, or even touch of the fingers; some febrile excitement; pain was complained of as most severe over a space of three inches square to the left of the umbilicus. Examination under ether revealed a tumor about the size of the closed fist, solid, fixed, and irregular, over the course of the common iliac artery. Auscultation gave no abnormal sounds, no thrill or other evidence of aneurismal trouble, which was at first suggested by the location of the tumor in relation to the iliac and mesenteric arteries. After a few days a small, soft tumor was discovered over the spine at the junction of the lumbar with the dorsal vertebræ; this was about two inches in diameter, elevated about half an inch, slightly tender, obscurely fluctuating, and at first thought to be connected with the deeper parts. A careful examination proved it to be superficial and movable. There was no clear history of syphilis, but an account of local venereal sores several years previously; and the patient was then suffering from chancroid of the vulva. She was at once put upon iodide of potassium, with small doses of the biniodide of mercury. The iodide was gradually increased to ʒ j. three times daily, well diluted. This was well borne, and under its use the pain subsided; the tumor in the iliac region was free from tenderness, and had decreased fully one-third in size, and that over the spine was one-half less in size, painless and boggy. Dr. Otis then remarked that not unfrequently in cases of obscure tumors, where there was no reliable evidence of antecedent syphilis, the touchstone of treatment cleared up the diagnosis in a prompt and satisfactory manner, as in the present instance, where the suspicious tumors were thus proven to be syphilitic gummata. In addition to the local effects of the specific treatment, the general health of the patient had also improved in a marked degree.

HYDROA FROM IODIDE OF POTASSIUM.

In a female patient, who had been suffering from syphilitic rupia and other constitutional trouble, and had been taking iodide of potassium freely for their relief, there had suddenly broken out upon the face, arms, and other parts of the body, the remarkable pustular eruption known as hydroa, which in occasional rare instances becomes developed during a prolonged course of this remedy. On first appearance the pustules were more or less circular in outline (some of them being umbilicated), while some bore considerable resemblance to the blebs of pemphigus. As soon as the eruption was discovered, the iodide of potassium had been suspended altogether, and cod-liver oil and iron substituted for it; and the patient at once began to improve. At the time she was seen the pustules had dried, and the eruption presented merely the appearance of thick crusts scattered over the surface that had been affected.

Dr. Otis stated, in connection with this case, that during the course of syphilis, and especially in the later stages of the disease, cachectic conditions were sometimes developed under the persevering use of specific remedies, and apparently as a consequence of their action; it was then advisable to drop them altogether, at least for a time, and to administer such agents as cod-liver oil and iron in their place. It was not unfrequently the case that these seemed to have a beneficial effect not only upon the general condition, but also upon the syphilitic troubles; when, however, the specific developments advanced, it became necessary to return to the former remedies. In the present case, Dr. Otis said, he would not hesitate to resume the iodide of potassium if any aggravation of syphilitic manifestations should be noted; because, if it gave rise to any difficulty, the trouble could be easily controlled, as had been done in this instance. Thus far, however (a week from the cessation of the iodide of potassium and the mercurial fumigations which she was taking), the patient had not only improved in general health, but extensive superficial ulcerations of the limbs had quite healed.

DOUBLE SYPHILITIC IRITIS.

In the female venereal ward there was also a patient suffering from double iritis, in connection with a very bright and well-marked syphilitic roseola, associated with a characteristic enlargement of the post-cervical glands. In regard to the diagnosis here, Dr. Otis remarked that when in any case we found painless enlargement and induration of the inguinal glands following a suspicious sore about the genitals, the probabilities were that the patient was affected with syphilis, and that when a little later there followed a roseolous or papular eruption, accompanied by enlargement and induration of the post-cervical and other distant glands, there was no reasonable room for doubt about the matter; but that when, in addition to the above signs, there developed an iritis, the diagnosis was absolutely certain.

He considered it of great importance to recognize the presence of iritis as early as possible, so as to prevent the formation of inflammatory adhesions. When these had occurred, the fact was indicated by the irregular outline of the pupil, due to a certain amount of fixation of the iris on account of their presence. The recognized way to prevent such adhesions, as well as to break them up when recent, was to dilate the pupil fully by means of atropia, and keep it in this dilated condition until the inflammation was subdued. When these adhesions had become very firm, atropia was of no use for this purpose, and the only method of securing the patient's vision in the future was by the performance of [illegible]

This case was an exception to ordinary syphilitic iritis, from the fact that it was double instead of single, and there was also a [illegible] as well as of conjunctivitis, which is not always present. The action of mercury was of especial value in such cases, not only aiding in a solution of the adhesions, as

well as in their prevention, but in allaying the characteristic supra-orbital pain, which, like that of all syphilitic neuroses, was chiefly nocturnal.

ABNORMALLY CONTRACTED MEATUS URINARIUS, WITH PROBABLE STRICTURE OF THE URETHRA MORE DEEPLY SEATED.

The patient was a man in whom there were some evidences of constitutional syphilis, who complained of great pain over the bladder and in other parts of the pelvis (as well as in different portions of the body, though less marked), of frequent micturition, and of occasional difficulty in passing his water. The centre of the penis measured slightly more than three and three-quarters inches in circumference, and, according to the proportional standard adopted by Dr. Otis, the meatus should have admitted a No. 36 or 37 sound (French scale). Instead of this, however, it was found to be quite contracted in calibre.

In order to make an exploration of the canal, Dr. Otis introduced a urethrometer as far as the bladder, and gradually turned the scale until it marked 40, when the bulb gave the patient the sensation of just filling the urethra. The instrument was then gently withdrawn without meeting with any obstruction until the bulb came within four inches of the meatus, when it was caught. Dr. Otis remarked that just at this point, where the bend in the penis takes place in its flaccid condition, there is a natural contraction of the canal of greater or less degree, due to the folds of the mucous membrane gathered there. He therefore diminished the size of the bulb to the extent of three or four millimetres, but finding that it still could not pass, he pronounced the condition pathological; and it was not till it had been brought down to 33 that it could be gotten through the constriction. At the meatus it became necessary to reduce the instrument to 24 before it could be withdrawn.

With a probe-pointed bistoury he then slit up the orifice and the canal for about an inch beyond it until a No. 38 sound could be passed through it with ease; and stated that it was quite possible that when the wound had healed up (as he had frequently seen in other cases), it would be found that the apparent stricture beyond had been more or less spasmodic, and was due to reflex irritation caused by the constriction at the meatus. Even if it should be ascertained that there was a purely organic stricture, he would not advise that any measures should be adopted for its relief at present, for he deemed it prudent to avoid all such operations, if possible, in persons still suffering from syphilis.

With regard to the contraction of the meatus which had been present in this case, Dr. Otis remarked that the ordinary symptoms found in certain cases to be dependent on this condition were more or less constant pain in the pelvis, and extending down the thighs, frequent micturition, a sense of sudden restriction occasionally during urination, dribbling after passing water, and certain reflex nervous symptoms in various parts of the body, which varied in different individuals. Quite recently, he said, he had been consulted by a physician of this city, who for years had suffered great pain after defecation. His rectum had been examined, with a negative result, by competent surgeons, and finally, as a last resort, the sphincter ani had been ruptured in the hope of giving him relief, but still the trouble continued the same as before. Dr. Otis, on making an examination, found that the orifice of the urethral canal was abnormally contracted, and advised its enlargement; this was accomplished, and the result had been so extremely satisfactory that the gentleman now considered himself practically cured.

ABNORMAL CONTRACTION OF THE ORIFICE OF THE URETHRA WITHOUT SYMPTOMS.

Dr. Otis called attention to this case in order to contrast it with the preceding. Not only was the meatus unusually small naturally, but the patient, who was now suffering from constitutional syphilis, had formerly had a sore just at this point, which had still more markedly diminished its calibre. Yet, strange to say, the man suffered no inconvenience whatever, as far as could be made out, from having an orifice which could almost, without exaggeration, be called a "pin-hole meatus." It was one of those exceptions, Dr. Otis remarked, to which all general rules are subject; but, at the same time, he did not doubt that if the patient's life was spared, the condition would almost certainly give him more or less trouble in the future.

Progress of Medical Science.

CAFFEIN AS A DIURETIC AND CARDIAC STIMULANT.—Some time ago Prof. Gubler stated that caffein induced abundant and instantaneous diuresis in cases of cardiac dropsy. Dr. L. Shapter has recently reported cases which confirm this observation, and indicate a stimulating action of the drug upon the heart. In these cases the patients were in the latter stages of heart disease, with dropsy, dyspnœa, weak and irregular heart action, and diminished renal excretion. Caffein, in gr. iii. doses from one to three times a day, was given, after digitalis and potash had been tried unsuccessfully. All of the four reported cases showed rapid and marked improvement, the urine generally doubling in amount within twenty-four hours.

Caffein has been shown to be a vascular and cardiac tonic. Whether in these weak and dilated hearts it acts as a direct stimulant or chiefly by increasing diuresis and thus unloading the circulation it is impossible to say, but at any rate, its special value seems to be pretty well shown.—*The Practitioner*, Jan., 1879.

ANOTHER ANÆSTHETIC.—The Committee of the British Medical Association on the Action of Anæsthetics reports the results of six experiments with dichloride of ethidene, and is of the opinion that it presents all the advantages of ether or chloroform without their disadvantages. Its odor is agreeable, it produces rapid narcosis without much previous excitement, and its use is rarely followed by nausea or vomiting. It is administered by pouring the liquid on a piece of lint placed in a tumbler and this held over the mouth and nose. In from eight to twelve minutes complete anæsthesia and muscular relaxation are produced. During the anæsthesia respiration goes on regularly, the pulse is full and slow, and there is no pallor or blueness of countenance. From half an ounce to an ounce of the substance is used.—*Brit. Med. Journal*, Jan. 25, 1879.

IODIDES OF QUINIA AND CINCHONIDIA.—Dr. John Vansant, of the Marine Hospital Service, has discovered a method of obtaining the above iodides, and considers them very effective preparations. To a solution of equal weights of sulphate of cinchonidia and citric acid a like weight of potassium iodide is added. A yellow precipitate is formed, and this

being washed in ice-cold water, the protiodide of cinchonidia is left. It is a yellow crystalline powder, soluble in alcohol and hot water; it is odorless, but intensely bitter to the taste. Chlorine water added to a watery solution of this protiodide precipitates the biniodide of cinchona. This is a brownish-red powder, soluble in alcohol, and having a disagreeable metallic taste. When quinia is substituted for cinchonidia in these processes similar reactions occur, and the resulting compounds have nearly the same characters.

In regard to the therapeutic value of these substances, Dr. Vansant cannot speak positively of the biniodides, but he gives strong testimony in favor of the protiodides which he has used in a great many cases with the best results. They are indicated in conditions where both quinia and iodide of potassium are needed. In malarial fevers they are more prompt and efficient than twice the weight of any other preparation of the cinchona alkaloids. The watery solution can be combined with many other medicines without decomposition. The prescription which Dr. Vansant uses and recommends is as follows:

℞. Cinchonidiæ sulph.,
Potassii iodidi,
Acid. citric..... āā gr. xxiii.
Aquæ destillat..... ℥ vss.

Dissolve the cinchonidia and acid in the water, then add the pot. iodid., and agitate.

Sig.: Dose, ℥ ss. t. or q. i. d.—*American Practitioner*, January, 1879.

Case of Polypus of the Œsophagus Successfully Removed.—Mr. Annandale reports a case of œsophageal polypus which he removed from a patient aged seventy-six years, and which he considers worthy of record, as cases of polypus growing in this situation are rare. The tumor had been growing for five years, and used to "come out of his throat on to his tongue" upon coughing, after which it would return to the œsophagus spontaneously, or it could be easily reduced with the finger. It never gave any inconvenience except by its protrusion, there being no interference with swallowing or respiration. At the time of the operation the tumor measured four inches in length by one inch and a half in width, gradually tapering towards its peduncle, which was fully two inches long, and about the size of a lead-pencil. The attachment was to the left side of the œsophageal tube, immediately below its commencement. The peduncle was surrounded by the chain of an écraseur, and slowly divided about one inch from its origin, thus removing about five inches of tumor. The structure of the growth was fibrous, resembling in appearance that of the dense fibrous polypus which grows in connection with the nasal cavities and the base of the skull. It was covered externally by mucous membrane. For some hours after the operation there was slight oozing of blood from the stump, but this soon ceased. The patient was able to return home in a fortnight. *The British Medical Journal*, November 23, 1878.

Surface Thermometry. — Surface thermometry is as yet in its infancy, but it is already of service in the diagnosis of disease, the prognosis, and in the treatment. The investigations of Dr. Squire demonstrate that the surface temperature of the chest is not always raised in the neighborhood of tubercular deposits, but when recent active disease exists such elevation is always present. Less recent disease, while undergoing active change, still shows an increase both of surface temperature over the site of the morbid process, and of the axilla on the affected side. This local temperature subsides when local or general improvement is manifest, and is often entirely absent from an old deposit, now quiescent or not producing general disturbance. A useful means is thus afforded for recognizing the progress of the disease. With pleurisy and recent pleuritic adhesions the surface temperature is raised more than when these complications are absent. Acute pleurisy may raise the local temperature 4° or even 5° Fahr.; the affected side is always a full degree higher than the unaffected. Neurosal affections, so far as traced by the surface thermometer, seem to be attended by a lowering of temperature at the seat of a referred pain, or of a reflected irritation, and by an increase of heat on that of the originating centre.—*The Practitioner*, November, 1878.

Contagiousness of Phthisis.—An attempt has been made by Dr. Tappeiner, of Meran, to induce tuberculosis in dogs, by causing them to inhale phthisical sputa. The animals were confined for several hours daily in a chamber, the atmosphere of which held in suspension the sputum of a case of phthisis distributed by means of a steam atomizer. Of the eleven cases experimented upon, all, with one doubtful exception, presented at the autopsies, after a period varying from twenty-five to forty-five days, well-developed miliary tubercles in both lungs; and in most cases tubercles were present to a smaller extent in the kidneys, and in some cases also, in the liver and spleen. The quantity of sputum necessary for the effect is certainly a very small one, for in three experiments, only one gramme was daily atomized in the air of the chamber. Miliary tubercles were also found at Munich, in the lungs of two dogs fed for six weeks with fifteen grammes daily of the same sputum as that used in the inhalation experiments; in six similar experiments at Meran the results were negative, all the organs being normal. It is remarkable that, with two exceptions, the animals, up to the time at which they were killed and found diseased, were well and lively, and indicated their disease neither by emaciation nor by other external symptoms. A preliminary account of these experiments of Tappeiner led Dr. Max Schottelius to make some similar experiments, not only with the sputum of phthisical individuals, but also with that of persons suffering from simple bronchitis, and with cheese, brain, and cinnabar. The result was that miliary tubercles were found in the lungs in all cases, and in equal quantity with both phthisical and bronchitic sputum. Cheese produced a smaller quantity; pulverized brain still less; and the cinnabar the least effect of all, merely a few whitish tubercles with pigmented centres, with an interstitial deposit of the substance, which had caused no inflammatory reaction. Tappeiner has also experimented with calves' brain in two cases, but with purely negative results. No changes in the lung followed, such as resulted from the inhalation of tuberculous sputum.—*The Lancet*, Nov. 23, 1878.

On the Use of Thymol. Dr. Seyferth has published the results of his experience with thymol, which he has latterly employed exclusively in all surgical cases, and also in other cases requiring local antisepsis. In several cases of extensive burns it acted very satisfactorily, stopping at once the offensive discharge in cases that had been treated for days with carron oil, relieving the pain entirely, and producing a rapid recovery. The deep sloughs separated more rapidly than usual, and the granulations were not so exuber-

ant as in cases treated by carbolic acid; the resulting cicatrices also were not so deep and firm. A violent stomatitis due to the inhalation of caustic vapor, which had been treated for two days without relief by potassium chlorate and solutions of boracic acid, was quickly cured by a solution of thymol, of the strength of 1 : 3000. The same solution proved very effective in seven cases of diphtheria, three of which were very severe, and accompanied by great fetor of breath. Here it was used by injection into the nose, as well as into the mouth. Purulent coryza and suppurative aural catarrh do well under the thymol treatment; solutions of 1 : 4000 are well borne, and do not irritate either the nose or the auditory canal. Two cases of ophthalmia neonatorum were cured by the thymol solution, with which the eyes were washed out every hour; between the washings the eyes were kept constantly covered, at first with ice-compresses, and later with compresses of cotton soaked in the thymol solution. In some puerperal cases with offensive lochia, the vagina was washed out repeatedly, at first with solutions of 1 : 1000, and later with solutions 1 : 2000 and 1 : 4000; the results were rapid deodorization and a favorable action in the general condition of the patients. In two cases of old vaginitis with profuse, stinking discharge, a cure was obtained in fourteen days by irrigations with a solution of 1 : 4000, repeated three times a day, and followed by the introduction into the vagina of plugs of cotton dipped in thymolized glycerine. Dr. Seyferth keeps the following solution constantly on hand, and dilutes it to the desired degree whenever it is needed: Thymol, 1.0; spir. vini, 10.0; glycerin., 20.0; aquæ destil., 70.0. M.—*Allg. Med. Cent. Zeit.*, No. 62, 1878.

Perforation of the Appendix Vermiformis as the Result of a Tubercular Ulcer.—In October 1876, a woman, 25 years of age, was admitted into the Vienna General Hospital with a history of amenorrhœa for four months, and occasional pains in the abdomen for six weeks. Examination of the lungs, heart, liver, and spleen revealed nothing abnormal. The abdomen was moderately distended, and presented a transverse tumor below the navel, which was displaced upward. The skin over the tumor was red and injected. The tumor itself was soft, compressible, and contained air. It could be made smaller by pressure, and the anterior abdominal wall could then be felt at the bottom of it; an opening with infiltrated edges could be made out by palpation in this wall. The hypogastric region was firm and resistant, especially on the right side. The tumor was slightly enlarged by coughing. The percussion note over it was high-pitched and tympanitic. In December the tumor opened externally, and an artificial anus formed. The patient died of exhaustion in April, 1877. The autopsy revealed tuberculosis of the lungs, and peritonitis with adhesions of the intestines. In the fossa iliaca there was a large abscess which inclosed the vermiform process that had been perforated by a tubercular ulcer. A fistulous canal led upward and inward from the abscess to the abdominal opening. *Bericht der k. k. Krankenanstalt in Wien*, 1877.

Osseous Tumor of the Mamma.—At a recent meeting of the *Société de Biologie*, in Paris, M. Leloir presented an osseous tumor of the mamma, that had been removed from a slut in the laboratory of M. Vulpian. There was partial ossification of the fibrous tissue of the gland. According to M. Malassez, tumors of this nature are not rare in dogs.—*Le Progrès Médical*, December 7th.

A New Modification of the Anterior Splint.—Dr. Roswell Park has made a modification of Nathan R. Smith's "Anterior Splint," which he claims to be an improvement both on it and on Hodgen's modification. The principal novelty in the splint as modified is the addition of an arrangement permitting movement of the knee-joint without interference with the position of the fragments, in cases of fracture of the femur. Dr. Park states, however, that it would hardly be justifiable to make any changes in the position of the limb until after the formation of callus. Another new feature in the splint is the introduction of an arrangement by which elastic extension can be made. The modified splint can be taken apart and packed in small compass, and is so arranged that it can be fitted to a leg of any size. It is applicable to almost all fractures between the hip and ankle, except those of the patella.—*Transactions of the Illinois State Medical Society* for 1878.

Treatment of Popliteal Aneurism by Esmarch's Bandage.—Mr. Jonathan Hutchinson, at a meeting of the London Clinical Society, *Lancet*, *Dec.* 21, 1878, read the notes of two cases of popliteal aneurism treated as above. One was in a gentleman twenty-six years of age. An Esmarch bandage was applied, while the patient was under ether, to the entire limb, tightly below the knee, very lightly over the tumor, and tightly again on the thigh. The elastic strap was applied as tightly as possible in the upper third of the thigh, and after a little time the bandage was removed. Ether was kept up for an hour, and at that time the strap was removed and a horse-shoe tourniquet substituted. No pulsation ever returned in the tumor. The subsequent recovery was rapid and complete. The second case was less speedily successful. It was treated exactly as the first case, but pulsation returned. Three days later the same plan was adopted. The man was kept under ether for two hours; at the end of that time the strap was removed, and digital pressure was kept up for seven hours, at the end of which time pulsation had quite ceased.

Control of Hemorrhage in Amputation at the Hip-Joint.—Mr. Alfred Pearce-Gould, in amputating at the hip-joint, at Westminster Hospital, Dec. 7th, adopted the following plan of Mr. R. Davy's to control the hæmorrhage, and so completely that only about three ounces of blood were lost. The common iliac artery was compressed by carefully introducing a straight wooden rod, with a bulbous end, into the rectum for about nine inches. The length of the rod was about twenty-two inches. Slight elevation or depression of the handle, when once the instrument was brought to bear on the vessel, was enough to stop, or to allow the flow of blood.—*Lancet*, Dec. 21, 1878.

Milk a Solvent of Quinine.—Mr. Batterbury calls the attention of physicians to the fact that milk is a good solvent for quinine, and also covers its bitterness. He has found that one grain of sulphate of quinine, dissolved in one ounce of milk, gives a solution with scarcely perceptible bitterness. Five grains can be administered in two ounces of milk without imparting to it a very disagreeable taste, and when the same quantity is added to a glass of milk all bitterness disappears. Mr. Palmer, of Birmingham, has confirmed these observations. He recommends, however, that the quinine should first be dissolved in glycerine in the proportion of a grain to a drachm.—*Gazette Obstétricale.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 8, 1879.

THE OVER-CROWDED PROFESSION.

THE three medical colleges of this city have just graduated over four hundred and fifty doctors of medicine. It is fair to presume that other schools throughout the country have contributed a proportionate number of recruits to the army medical. To the ordinary practitioner, not interested in the pecuniary success of any of these institutions, this increase of young doctors will be looked upon with considerable concern as to what the end may be. It is so universally admitted that the profession in this country is overcrowded, that it would seem like a work of supererogation to refer to the fact in the way of argument against large graduating classes. Still it is not only natural, but it is opportune at this time, to refresh our memories in regard to some points which refer to the present yearly system of glutting the market with medical talent.

The number of medical students in a series of years may be taken as a fair exponent of the number of the profession itself. The number of medical students in 1810 was 600; in 1871, 7,046; in 1876, 8,689; and in 1877, 9,646.* And we find that the proportion of these to the population was in 1810, 1 to 12,000; in 1840, 1 to 6,800; in 1871, 1 to 5,700; and in 1877, 1 to 4,700.*

These figures show very plainly a steady increase of students every year which is out of all proportion to the increase of population. The same may be said for the profession, the members of which, by the continually increasing yearly additions, have swelled the proportion of one to six hundred of the population.

It is noticeable that the professions of law and theology, though both overcrowded, do not show of late years this same steady increase of students. The number of theological students in 1871 was 3,204, while in 1877 it had only increased to 3,965. In 1871 there were 1,722 law students in the law colleges; in 1876, 2,174; and in 1877, 2,811. While the increase in medical students amounts to nearly a thousand every year, that of the other professions has averaged within a hundred.

The medical colleges have not been behindhand in ministering to this much diffused aspiration to enter the noblest of professions. There were in 1877 eighty-two of these chartered institutions. These are distributed somewhat curiously throughout the States. Thus there are three at Washington, D. C., a city of 140,000 inhabitants; there are two in Massachusetts; ten in Ohio; all New England has six; all Missouri seven; Pennsylvania has four; Illinois and Kentucky each five. As a general thing it may be said that where there are few colleges in a State they supply a demand; where there are many, they demand a supply—and get it by superior inducements in the line of economy to the student of time and money.

Prof. Alfred Mercer, in an interesting address recently made to the council of the Syracuse (N. Y.) University, very pertinently says:

"From the cheapness of American diplomas, and from the few unenforced legal restrictions on the practice of medicine, with or without a diploma, or any known qualifications whatever, we have one doctor to every six hundred inhabitants, while a few miles from here, just over the Canadian border, they have only one to 1,200 inhabitants, while in Great Britain there is but one to 1,672.

France has	one to	.....	1,814
Germany	"	"	3,000
Belgium	"	"	2,048
Austria	"	"	2,500
Italy	"	"	3,500
Norway	"	"	3,480

Thus, we have two doctors in the United States to one in Canada, nearly three to one in Great Britain, more than four to one in France, and five to one in Germany. The just relative proportion of doctors to population has been variously estimated at from fifteen to twenty-five hundred. The present average of the civilized world would probably fall within these limits."

We do not care to enlarge much upon the indications furnished by these statistics. The continual forcing of a larger and larger number of youths into a profession which they can never ornament and are likely to disgrace, is an evil that has been often enough discussed. Competition is very beneficial; over-competition begets envy, poverty, and dishonesty. When the proportion of physician to population is one to four hundred, medical ethics will probably cease to exist. The proportion as already stated as one to six hundred.

It is expected that they who proclaim evils will furnish remedies, and several such have been suggested. The endowment of the colleges so as to render them independent of the student's fees is a plan that is strongly recommended. But this project has violent opponents; besides, it would not alone be effec-

* Report of the Commissioner of Education for 1877.

tive, and it is at present impracticable. It certainly is a misfortune that medical colleges are now the poorest of all institutions of learning, and are compelled to obtain their incomes from the fees of their students. Hence, large classes mean pecuniary success, each year the number of graduates is increased, and each year the profession gets poorer. It is the State which can and ought to remedy the evil. Let it do here what is done in other countries take from the colleges their indiscriminate licensing power and bestow it on a board who shall admit to medical practice only those whose thorough education proves them worthy of it. By some measure of this kind we may be able to avoid that condition to which statistics now point, where every man will be his own doctor.

THE PLAGUE.

Although reports concerning the progress of the plague in Europe are quite contradictory, there does not seem to be a doubt that the epidemic is of considerable magnitude, and that it has spread from the localities in which it has been said to have originated. From Astrakhan it has extended to the adjacent villages on the left bank of the Volga, and has made its appearance at Saratoff and neighboring localities. The different governments of Europe have united for self-protection, and representative medical and sanitary commissions have been delegated to study the disease. As a result of these investigations, numerous data have been presented which are extremely interesting, both from a historical and scientific point of view. Our foreign contemporaries vie with each other in the amount of information upon these topics which they furnish to their readers.

The general characters of the present epidemic are in keeping with those which have been heretofore associated with the disease. The period of incubation is exceedingly short. In fact, the rapidity with which the majority of the victims are stricken is one of the appalling features of the disease. The duration of the disease, the average being three days, is also in keeping with the history of other visitations. Although this is the same form of bubonic plague which was observed in the beginning of our century in some parts of the East Indies, the glandular complication does not appear to be as prominent a condition as does the pulmonary affection, which is a rapid and destructive gangrenous pneumonia. The real cause of the disease is believed by Prof. Hirsch to be a blood-poison, which produces not only very serious typhoid symptoms, but induces local affections of the glandular system, in the shape of buboes, axillary and cervical enlargements, as well as destructive inflammation of retro-peritoneal glands and the spleen. The follicles of the intestines are never affected as in typhoid fever. Prof. Hirsch is of the opinion that the disease does not belong to the contagious group, but is of a zymotic type. In regard to the latter point, his views coincide with the leading Russian authorities.

We are informed that a strict quarantine is maintained along the whole line of the Volga, that the province of Astrakhan is completely surrounded with troops, that infected villages have been burned, and that the most stringent measures are employed to limit the epidemic. In view of the extraordinary means adopted, and the privations to which the inhabitants of the infected districts are subjected, the end is not yet. There is, perhaps, nothing which is so liable to be overdone as a quarantine based upon the fears of an ignorant people. It so often defeats itself that practically it does more harm than good. Russia appears to be adopting the extremest measures, with a result which it is not difficult to anticipate. We know that quarantine to be effective must be reasonable, and that some middle ground must be taken between the means of preventing the extension of the disease on the one hand and the protection of the people exposed to the disease on the other. That the latter condition is not appreciated by the Russian government as it should be is quite evident. The *cordon sanitaire* is complete in its way, but this of itself will serve to explain why the people subjected to the same are demoralized, deprived of many of the necessaries of life, and are subjected to the usual unsanitary conditions which obtain under such circstances.

THE ALTERATION OF PRESCRIPTIONS.

The correspondent who favors us with a communication concerning the alteration of prescriptions by druggists is very unfortunate in his relations and surroundings. The facts which he presents show an amount of turpitude on the part of his pharmacist which is certainly alarming. We do not suppose that such experiences are by any means unique. In fact, we have in mind many instances that have come to our knowledge in which either the substitution of drugs has been made, or the quantities altered, at the discretion of the compounder. Of course this has been done by unprincipled and irresponsible druggists, and the physician who discovers the wrong is very quick to advise his patients to go to some trustworthy dispenser. Our correspondent has a similar method of remedying the evil. If, however, there is but one pharmacy in his village, he must dispense his own medicines.

A Searcher for Urinary Calculi.—Dr. Edmund Andrews (Professor of Surgery in the Chicago Medical College) has devised a "searcher" for urinary calculi, which consists of a combination of Toynbee's otoscope and an ordinary short-curved, non-fenestrated catheter. It is claimed that by this instrument very small fragments of stone can be detected within the bladder. (For details see *Med. and Surg. Reporter*, Oct. 12th.)

Reviews and Notices of Books.

THE PHYSICIANS AND SURGEONS OF THE UNITED STATES. Edited by WILLIAM B. ATKINSON, M.D., Author of "Hints on the Obstetric Procedure," Permanent Secretary of the American Medical Association, etc. 8vo, pp. 788. Philadelphia: Charles Robson, 1878.

THERE is a Spanish proverb to the effect that no man can be considered as having lived to any purpose who has neither written a book, built a house, or become the father of a boy. If to this standard the additional provisions are made that such a person, being a physician, must have written an article for a medical journal, must have been an officer in his county society, or have been, according to his own testimony, "an active worker in the profession," we can safely say that every one referred to in the volume before us is a man of reputation and "adorns the profession of his choice." Very much has been said in condemnation of the purposes for which this book was published; but, taking all the objections into account, we cannot look upon the venture as any more or less than a successful attempt to minister to the vanity of men who are either great already, or who wish to be. The histories are presumed to be truthful, because for the most part they are written under the direct supervision of the subjects themselves. From this point of view they are valuable as furnishing trustworthy data for obituary notices. As far as the records of facts are concerned, we believe the histories are trustworthy; but when any comments are indulged in, or attempts made at analyzing characters, considering the authorship of the same, there is naturally engendered that prejudice which lawyers attach to willing and perhaps partial witnesses. Still it is pleasant to know how old your friend is, where he was born, whom he married, how many children he has, and whether or no his wife or himself descended from any of the older and more influential families. All of this goes to prove that blood will tell. In proof of this we can refer to at least one hundred and twenty-five physicians so descended, who arose in their profession, became either secretaries of their county societies, aldermen of their villages, or made themselves specialists, and enjoyed large and lucrative practices. One of these gentlemen performed tracheotomy six times, another cut for hernia three times, another wrote a pamphlet which was reprinted in his village paper and resulted in his appointment as inspector of the school board, while another became trustee of a female seminary.

But Dr. Atkinson, in the generosity of his spirit, has doubtless found it hard to draw the line of distinction, and has perhaps trusted too implicitly to the statements of the subjects themselves. Under the circumstances, he has done much better than we could have expected, and, on the whole, has used his facilities to great advantage in publishing from different parts of the country interesting and instructive histories of many truly representative men. Of the whole number of autobiographies given (over twenty-six hundred) there are but two hundred, or, at most, three hundred subjects who have reputations which warrant any history whatever. These are the sketches which are interesting, and fully redeem the purposes of the publication. With the other two thousand or more there is much amusing reading, showing poor, vain human nature in all the various phases in which it can be studied. Particularly is this the case when an autobiographer gets upon a hobby, and reminds us of the boy in the corner who succeeded in finding the plum in the Christmas pie. The establishment of a principle is a grand thing, whether it refers to the foundation of an empire or a new treatment for an ulcerated os, but it is hard to make unprejudiced persons think so. The work is illustrated with fifty steel portraits of the chiefest among the two thousand. The majority of these men are well known, and the likenesses are as good as could be expected when obtained without, of course, the consent of the originals. Of the remaining portraits, there are several which we presume are fine pictures; at all events, as mere works of art, they help to embellish the book and add to the general amusement of the reader.

In conclusion, we congratulate Dr. Atkinson on the success of his undertaking. He has certainly given us a very entertaining, well written, and instructive volume. If anything, he has done more than he promised. In a future edition we hope he will keep an eye on the man who has invented a speculum or a splint, who has found out a new method of extension, who was an officer of the American Medical Association, who calls a one-horse dispensary a hospital, or who has helped in any other way to make a reputation by "revolutionizing the practice of our art."

The work is supplied with an analytical index of subjects treated of by the distinguished men mentioned, but, being a very partial record, is of little value to the student. The typography of the volume is very bad, the ink inferior, and the paper poor.

AIDS TO CHEMISTRY: Specially designed for Students preparing for Examination. Part II. The Metals. By C. E. A. SEMPLE. London: Baillière, Tindall & Cox, 1878.

IN a little work of about fifty pages, the most important facts about the metals have been very well condensed and arranged. A brief appendix gives a synopsis of the theory of chemistry. The book will be a very useful one to the student, for whom it is designed.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHHURST, JR., M.D., Professor of Clinical Surgery in the University of Pennsylvania, Surgeon to the Episcopal Hospital and to the Children's Hospital, etc. Second edition, enlarged and thoroughly revised, with five hundred and forty-two illustrations. 8vo, pp. 1,040. Philadelphia: H. C. Lea, 1878.

THE second edition of this work comes to us with a declaration on the part of the author that no pains have been spared to render it worthy of a continuance of the favor with which it has heretofore been received. To this end, every portion has been revised, and a considerable amount of new material has been added. The reputation which this work has made for itself as a clear, concise, comprehensive and scholarly treatise upon surgery, is unquestioned. The large experience of the writer as a clinical teacher, his intimate knowledge of the literature of his subject, his authority as an accomplished scholar, have tended to make the work one of peculiar value and excellence. The arrangement of subjects is systematic and natural, while their treatment is surprisingly exhaustive, showing a most thorough acquaintance with the ancient and modern literature of surgery. The peculiar excellence of this edition is that the most recent improvements in surgical practice are noted, many of the references being made to articles which have appeared in the journals only a few months since. All authorities are carefully named, and the greatest pains seem to have been taken to

give each observer his due amount of credit. As a practical work for ready reference it is unsurpassed, and although compressed within the compass of an ordinary octavo volume, it has the scope of an encyclopædia of surgery. It is well printed and profusely illustrated. The cuts are well selected, and many are original.

Reports of Societies.

MEDICAL SOCIETY OF STATE OF NEW YORK.

Stated Meeting, February 5, 1879.

HEMORRHAGE DURING ABORTION —DISCUSSION ON DR. LUSK'S PAPER.

DR. FORDYCE BARKER, of New York.—MR. PRESIDENT:—I shall detain the Society but a few minutes in discussing the questions brought forward in the paper to which we have listened with so much interest, and shall simply speak upon a few special points. The paper is one of great importance, and I have no doubt the statements with regard to the great mortality resulting from hemorrhage associated with abortion will strike many of the profession with surprise. And yet I am sure that these statements will be confirmed by every one who carefully examines statistics upon the subject, and by all who have a large consultation practice. For my own part I have known of a greater number of deaths from hemorrhage occurring at the time of abortion than I have known from hemorrhage occurring at the time of labor. Indeed, I have seen but one case of death from hemorrhage occurring at the time of labor. But I have seen in consultation at least fifteen or twenty cases in which death occurred as a consequence of hemorrhage in connection with abortion. In fact, hardly a year passes that I do not see one such case. The importance, therefore, of arresting hemorrhage in connection with abortion has, to a considerable extent been overlooked by the profession.

But this is not all; even where death does not result at the time, there is a large class of cases in which the health of the patient is broken down by a hemorrhage which continues persistently, perhaps only moderate in degree, for weeks or months after the occurrence of an abortion.

Of this class of cases I see very many every year. And here is almost the only point where I shall take issue with the author of the paper, upon the statement that in abortions which occur within the *second* month of utero-gestation but little treatment is required. If he had qualified the statement by saying that *ordinarily* but little treatment is required I should have accepted it. But I have seen patients—it is only last week that I saw one who was perfectly exsanguinated by a hemorrhage which occurred, it was supposed, and I argued, from the size of the ovum, within the eighth week of pregnancy. When I saw her she was perfectly pulseless; her respiration was rapid, and the surface of the body was covered with a clammy cold perspiration. The vagina was tamponed; the foot of the bed was raised, the patient's head was lowered, and stimulants in small doses were administered before I saw her. On examination soon after it was found that the tampon was getting quite moist with blood. It was removed, and then, by manipulation very much in the manner described by the author, I succeeded in removing the ovum, which certainly could not have been more than eight weeks old.

So also in other cases I have several times been called to see patients who had profuse, even dangerous hemorrhage, from abortion occurring at this very early period in pregnancy. But I will agree with the author of the paper that these are rare cases.

Just this moment there comes to my mind the case of a lady, who, while at church on a Sunday, suddenly found herself flowing. She had only passed one menstrual period. She was taken from the church, placed in a carriage and carried home, and a physician was sent for. When, a few hours later, I saw her it seemed almost hopeless to attempt to save her life, she was so perfectly exsanguinated. This gives me an opportunity to speak of one resource for averting hemorrhage, sometimes dangerous in early abortions, almost the only resource not alluded to by the author of the paper. In early embryonic abortions the manipulations for the removal of the ovum described by him are not practicable, because the uterus is not yet sufficiently developed.

In these early abortions attended by profuse hemorrhage I am accustomed to place the patient in the position described in the paper, then place a rubber sheet under the patient, so as to protect the clothing and the bed perfectly, and conduct the water to run into a pail below, and then inject into the vagina a large quantity of very hot water, from 104 to 110° F. I believe that one may always be sure that this will positively, absolutely, and efficiently arrest the hemorrhage. In all the cases where I have resorted to this method I have never found it necessary afterward to subject the patient to manipulations for removal of the ovum. It has always come away spontaneously, sometimes the next day, or the next day but one, and absolutely without hemorrhage.

But, to return to the class of cases, to which I have already alluded, still in connection with the question of abortion occurring within the first two months, I see cases where the accident has occurred two or three months before, and the patient has become exceedingly anæmic, and the general system has become broken down by a constant and persistent daily loss of a small quantity of blood.

It is in this class of cases where I have found the wire curette most useful, and have seen the greatest benefit follow its employment. Sometimes its application is followed by one free hemorrhage, but it ceases entirely afterward. I have seen cases of this kind where the loss of blood continued for two or three months, although the abortion occurred when the patient had missed only one menstrual period.

One such case was a very curious one, inasmuch as the patient was a maiden lady, thirty-three years old, and whose character had never been called in question. She had passed but one menstrual period, and just before the eighth week after the last menstruation she was attacked suddenly with profuse flooding, which was arrested by the means then employed. But from that time she continued to loose blood in small quantities, perhaps not more than an ounce daily, and the loss persisted for nearly three months, when I was asked to visit her in consultation. I found that no vaginal examination had been made, because the patient had refused to submit to it. I insisted upon an examination, which was finally granted, and I found the uterus somewhat enlarged, the os somewhat patulous. On the following day I made use of the wire curette, and brought away nearly a wine glassful of material which, when submitted to one of our most competent microscopists and histologists, was found

to be the remains of a decidual formation. I was not nearly so surprised at the result of the examination as was the attending physician.

There is only one other point to which I will allude, and that is in relation to the tampon.

In cases of abortion, where I find it necessary to tampon, I never trust any kind of vaginal tampon, but always tampon the cervix uteri with a compressed sponge of proper size, and then only fill the vagina just sufficiently to keep the sponge in place. This, if properly done, is certain to arrest the hemorrhage, and, in from eight to twelve hours, during which the patient rallies from the dangerous exhaustion following the loss of blood, the cervix is sufficiently dilated to permit the safe removal of the entire ovum by the procedure described by the author of the paper.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 25, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

ACUTE OSTITIS — ITS DEVELOPMENT.

DR. HEITZMANN presented a microscopic specimen of acute ostitis, and made the following remarks upon the development of the condition:

The process of inflammation can best be studied experimentally on compact bone, which, by being touched with hot iron, promptly reacts upon the irritation. Besides the well-known disturbances in the vascular system, the tissue itself also invariably partakes in the reaction. First the lime-salts are dissolved out in certain territories around the bone-corpuscles, this being a merely chemical action; next the glue-giving basis-substance is liquefied, and thus the protoplasmic condition of the bone-tissue re-established. As the network of living matter is present also in the calcified basis-substance, the liquefaction of the latter is the only requirement for re-establishing the embryonal or medullary condition of the bone. By increase of the size of the granules of living matter within the protoplasm, new medullary elements originate, these representing what has been termed the inflammatory infiltration. Up to the eighth day the compact bone, through the process of inflammation, is transformed into cancellous structure, and all medullary spaces are crowded with medullary elements, newly formed blood-corpuscles, and capillary blood-vessels. The medullary elements are connected with each other by delicate threads of living matter, and represent a tissue, though an embryonal, undeveloped tissue. Through rupture of the connecting threads isolation of the medullary elements results, and then we have pus-corpuscles before us, the sum total of which is termed an abscess. Against the views of S. Stricker, who considers all inflammatory elements as pus-corpuscles, H. maintains, that even the inflamed tissue remains a tissue with union of all constituent elements, lest suppuration should be the termination of the inflammatory process. The old doctrine of the two main varieties of inflammation, viz., the plastic and the suppurative, is fully corroborated by his recent microscopical researches.

COMPOUND PUNCTURED WOUND OF CRANIUM — REMOVAL OF FRAGMENTS — MENINGITIS — DEATH.

DR. BRIDDON presented a specimen of the above and gave the following history:

E. B. S——, aged 61, native of New Jersey, married; carpenter; was admitted to the Presbyterian Hospital, January 11, 1879.

On the previous day, whilst passing a building in the course of demolition, he was struck on the head by a falling brick and knocked down insensible; he came to himself in a few minutes, and then observed that he could not see with his left eye, which condition also passed away in a short time.

There is a linear wound of the scalp about an inch and a half long, situate on the summit of the vertex, and about an inch to the right of the median line; beneath it is a fracture of the skull, small, and in the form of a semicircle, the convex border of this fragment driven in beneath the inner table of the adjoining bone, and impacted between the fragments was a small lock of hair; a hole was nibbled away from the adjacent bone large enough to admit an elevator, with which the depressed bone was raised and detached, and immediately beneath was found a small pointed and detached fragment from the inner table about a quarter of an inch long, its apex pointing toward the dura mater.

The margins of the bone were smoothed off by the rongeur, and the wound was dressed with proof-spirit.

Everything went well until the 14th, when he had a chill followed by rise of temperature and headache; pupils were rather contracted, and there was some intolerance of light.

Headache continued about the same until the 17th, when it was aggravated by two or three attacks of vomiting, and it was then remarked that he did not respond with his usual promptness to questions.

19th.—Mental lethargy has deepened into stupor; pupils much contracted; pulse, which has never been over a hundred, is now below 80. The dura was found bulging in the wound, and there was no pulsation in it. An incision half an inch long was made through the membrane, giving exit to a tiny rivulet of pus, which could not be estimated on account of a pretty free venous hemorrhage. The blood was purposely allowed to flow for a few minutes, and was then readily arrested by very moderate pressure. While the flow continued, he quite lightened up, and it was noticed that his previously contracted pupils dilated; but the improvement was evanescent, and he relapsed again into a condition of stupor.

On the night of the 20th he had a severe chill, several involuntary discharges from the bowels, and retention of urine. His temperature on the following morning 103°. Coma was profound; there was occasional twitching of the muscles of the face; no convulsive movements of the extremities; reflex movements abolished on the right, and only very slight fibrillary movements could be elicited on the left side.

He continued in about the same condition until the 21st, when he died. Twenty minutes before death his temperature was 104°.

Autopsy, twenty-six hours after death.—Rigor mortis well marked. A crucial wound of scalp midway between nasal eminence and the occipital protuberance, and one inch to the right of mesial line. Opposite the centre of this was a circular opening in the skull. The floor formed by the dura was depressed. On removing the calvarium, which was very thin, there was found considerable injection of the sinuses, and a layer of false membrane capping the left hemisphere and adherent to the parietal arachnoid. The pia on both sides was injected, but much more so on the side opposite the injury. There was a layer of greenish pus in the subarachnoidean tissue on that side also. The evidences of inflammatory mischief were much less marked on the side of

the injury, and the brain itself was rather anæmic than otherwise. There was no collection of pus in the immediate vicinity of the wound.

There were old adhesions in the chest, and evidences of old bronchitis, and in one lung a small patch of fibroid induration. All other organs were found healthy.

Dr. Briddon remarked, in conclusion, that the general results of trephining were disastrous, even when the operation was most imperative, as for instance, in punctured wounds of the cranium. He had heard of two cases only in the records of the hospital (Presbyterian) in which such an operation had proved successful. These had been performed by Dr. S. B. Ward, a former surgeon of the institution. In Paris, where the operation had been quite fashionable, there have been no recoveries for ten years. He believed, however, that we were approaching the period when the indications for operation would be more exactly defined than at present, and when there would be a favorable reaction in favor of operative interference.

Dr. Keyes concurred with the latter opinion. He believed many of the fatal results were chargeable to the fact that the cases were not operated upon until beyond hope. Again, he had reason to believe that trephining, in common with other grave operations, is destined to have its general mortality reduced by a more general adoption of the antiseptic system in hospitals.

CYST-ADENOMA OF THE BREAST.

Dr. C. C. Lee presented a cyst-adenoma of the breast, which he had removed by operation from a patient in the State Woman's Hospital. She was a German by birth, aged twenty-one years, married, and the mother of one child. Nine months ago, and while in the fourth month of pregnancy, she noticed for the first time a lump on the left breast, an inch below and to the inner side of the nipple. The growth increased gradually, and was the seat of lancinating pains. When the child was five months old, she was compelled to cease nursing it, and after consulting several physicians, with varying results as to opinions, she finally applied to the Woman's Hospital for relief. On examining the tumor, Dr. Lee discovered that there was indistinct fluctuation, that the nipple was not retracted, and that the general appearance was in favor of non-malignancy. It was considered advisable to remove the growth, and the operation was done by an S-shaped incision. On cutting into the tumor after its removal, the contents were found to consist of a cheesy, fatty material, similar to that seen in strumous testes.

The wound healed promptly, and ten days after the operation, and at the time the case was reported, the patient was convalescent.

THREE VESICAL CALCULI REMOVED BY THE SUPRA-PUBIC OPERATION.

Dr. Keyes presented three specimens of stone, all removed from the bladder by the supra-pubic operation. The patients died in each instance, and Dr. Keyes stated that his reason for presenting the stones was not from any peculiarity either in the operation or in the specimens, but that he might put the cases upon record, since he considered it, perhaps, more important to report failures than successes. Dr. Keyes had removed stones from the bladder by lithotomy and lithotrity, all told, thirty-eight times. He had lost four cases; three of these were the supra-pubic operations to be detailed. The other fatal case was a broken-down subject of sixty-five, with a large, hard stone, which had caused much suffering for many years.

Of the three cases, the first ought to have recovered by any operation; the last two would have died, doubtless, under any operation.

Case I.—X——, aged 75, examined in May, 1877, was found to be in perfect health, with a prostate only moderately enlarged, not very much cystitis, and presenting every evidence of healthy kidneys, so far as the urine could decide the question. The stone was caught in a lithotrite, and measured $1\frac{1}{4} \times 1\frac{3}{4}$ inches. The stone was very hard, and lithotrity at a single sitting, for large stones, was not known at this date (May, 1877) to Dr. Keyes. The nervous, irritable temperament of the patient, and the size of the stone, made slow lithotrity undesirable, and lithotomy was proposed, but declined by the patient.

Two and one-half months later, during July, the patient's symptoms became more distressing, and he was brought back by his physician, demanding lithotomy.

The supra-pubic operation was performed. The bladder was first thoroughly washed out with carbolized water, and left empty. An incision in the median line above the symphysis reached the bladder promptly, its exact position being made evident by the point of a steel sound passed through the urethra. The bladder was held up by two strong silk threads passed through its whole thickness on either side, and between these threads the viscus was opened. The peritoneum was not molested. A little carbolized water was found in the bladder. The stone, weighing a few grains over an ounce, was easily extracted with straight forceps. A soft rubber catheter was placed in the wound, attached outside to a tube, so that it might act as a syphon. The bladder-wound was sewed up, and the outside wound left open. Certainly not one ounce of blood was lost. The whole operation occupied less than half an hour.

The patient died early on the third day, with a temperature of 104½° There was no tenderness over the abdomen, excepting at one spot low down in the left groin, near the middle line—suggestive of cellulitis. Drainage continued perfect until the end, and there was no suppression of urine. Autopsy refused.

Case II.—X——, age 73, had been cut sixteen years previously by Dr. Van Buren in the perineum, and six phosphatic stones removed. He had atony of the bladder, and after a few years he became tired of washing out the viscus, and stones gradually reformed. He visited Dr. Keyes for the purpose of being sounded. The urine contained albumen and casts, and there was much cystitis. A searcher, gently introduced, immediately encountered phosphatic stones.

The patient was laid up for two weeks with cystitis, as a result of this exploration, and no operation was advised. His sufferings, however, continued to torment him until he demanded relief. A lithotrite was therefore passed, one stone caught, crushed once, and nothing more attempted. This operation aggravated the cystitis, and, with Dr. Sands in consultation, supra-pubic lithotomy was decided upon.

The operation was short and without complication; one crushed and two whole stones, weighing collectively three ounces two drachms and ten grains, were removed. A soft catheter was left in the uninjured urethra.

The drainage was effective; no suppression occurred; but the wound did not unite, and the patient gradually became delirious and uræmic, and died

on the seventh day. Autopsy revealed granular kidney and slight pyelitis.

Case III. X——, aged 65, was operated on in Bellevue Hospital, October 29, 1877, by lithotrity, and a stone of one and a half inch diameter, composed of urates and uric acid, caught and crushed several times. The size and hard, sharp edges of the fragments caused some cystitis, and after a rest of a couple of weeks Dr. Keyes decided to give ether, and crush as much as possible at a single sitting, using a new lithotrite of Reliquet's, which was warranted not to clog. Collin et Cie., the makers, however, had modified the instrument in its construction in such a a way that it did clog admirably. After a few fragments had been crushed, it became evident that the blades were clogged. No efforts succeeded in getting rid of the fragments which filled the female blade. The instrument was therefore withdrawn and enough force had to be used during its extraction to divulse (slightly) the urethra at its point of natural constriction, about two inches from the meatus.

The patient had a chill, and did badly. His cystitis increased, and supra-pubic lithotomy was performed, drainage being managed by a convolvulus catheter passed through the bas-fund and out at the anus.

The patient did not rally. Death occurred on the second day, and surgical kidney was found on both sides at the autopsy.

URIC ACID CALCULUS OF LARGE SIZE REMOVED BY BIGELOW'S METHOD.

Dr. Weir exhibited the crushings of a uric acid calculus, weighing 360 grains, which were removed by Bigelow's method, from a man aged 73 years. The patient appeared in robust health, notwithstanding he had the history of frequent attacks of renal colic extending over a period of eight years, and had suffered from symptoms of vesical calculus for three years. The stone was crushed in fifteen minutes, the whole operation occupying forty-two minutes. The patient did well for six days, at the end of which time he was allowed to go into the solarium of the hospital. The second day after this he was seized with a chill and severe pain in the left kidney. The chill was followed by a temperature of 106° F. The chill was repeated the following day, with a recurrence of the temperature. Diarrhœa, persistent vomiting, and hiccough succeeded, and he finally sank in a somnolent condition, dying a month after the operation. Except for the first few days following the urethratory chills, the temperature ranged from 99¼° F. to 102° F. The urine during all this time was passed freely, and was not markedly changed in character.

At the autopsy a typical example of surgical kidney was found upon the left side, and a cystic degeneration of the corresponding organ on the opposite side. The left ureter was blocked by a number of small calculi, and apparently this had been the cause of the inflammation which had invaded the kidney. The bladder was uninjured.

UN-UNITED FRACTURE OF THIGH.

Dr. Weir presented a second specimen, which consisted of an ununited fracture of the thigh removed post-mortem from a Scandinavian sailor. Fourteen months before admission the patient sustained the fracture by a fall on shipboard. He had been treated by splints and extension for four months, with unsatisfactory results. When admitted to the New York Hospital, the shortening was two and a half inches, and motion was free. The first method of exciting inflammation for the deposit of new bone was made by forcibly rubbing the ends of the bones together, applying a plaster bandage and Buck's extension. This failed, and when Dr. Weir came on duty he bored the ends of the fragments with Brainard's drill. The point of one of the drills broke and remained in the bone. The operation was performed on the 24th of December, and the patient did well until January 2d, when he was seized with a chill which ushered in an attack of erysipelas. The latter appeared to originate in an abrasion over the tibia, the result of the previous application of plaster-of-paris to the pare. The redness extended upward on the thigh, but did not reach to the non-union. At the autopsy the knee-joint was moderately infiltrated with pus. How to explain the latter condition was difficult, in view of the fact that no osteo-myelitis had been excited by the operation, except by a lymphangitis, as recorded in several cases by Verneuil. The ends of the fragments were rounded, supplied with a smooth membrane, and surrounded by ligamentous tissue. It was quite evident that nothing short of resection of the ends of the bones would effect bony union of the parts.

CHICAGO GYNECOLOGICAL SOCIETY.

Regular Meeting, Dec. 27, 1878.

DR. D. T. NELSON, IN THE CHAIR.

(Special Report for Medical Record.)

PLACENTA PRÆVIA.

Dr. E. O. F. Roler read a report of a fatal case of placenta prævia, with remarks. He thought the descent of the ovum to the lower part of the uterine cavity depended on a failure to make prompt attachment at the upper part, from faulty decidua, or late fecundation, or separation of the mucous surfaces of the uterus "to such an extent as to furnish an easy passage through its cavity." The last condition was less likely to exist in primiparæ. He thought the ovum might become attached to the cervical lining, as well as just within the internal os; in the former case "abortion at an early day must be inevitable," for the os internum would prevent the invasion upward of the growing ovum, and, as the os externum has slight powers of resistance, it would become early distended and dilated, and expulsion would result. He had met with one case of this kind: abortion had occurred at the third month, with alarming hemorrhage, that neither ergot nor ice locally applied had power to check, but which ceased at once on the injection of persulphate of iron. After discussing the various definitions of placenta prævia, he stated his own to be "implantation *over* the os internum within the cavity of the body of the uterus." He did not believe in the doctrine of the development of the uterine neck during the later months of gestation. Were such doctrine true, in placenta prævia there would always be hemorrhage during this time, which was not the case, some cases wholly escaping hemorrhage until the beginning of labor. He therefore regarded hemorrhage, until near the end of gestation, in placenta prævia, as purely *accidental*.

As to treatment, he was inclined to the view that the removal of the placenta, "to the extent of clearing the canal for the advancing fœtus," was indicated. He thought it well to separate the placental attachment one-half the circumference of the neck, and to rupture the membranes and bring down the border of the placenta, as occurs in the accidental variety. The advancing head or breech would then act as a com-

press. For tampons during dilatation of the neck he preferred plugs of oiled cotton batting. Artificial dilatation was generally a failure. Early rupture of the membranes should be resorted to only in cases of partial presentation, or where the placental edge could be brought down. Rupture of the membranes should be avoided as a preliminary step until full dilatation. Puncture of the placental mass was of doubtful propriety.

The case he had to report was of a woman of forty, a multipara. She had had dyspepsia for years, and profuse menstruation. The first indication of placenta prævia occurred about forty-eight hours before labor came on, when profuse discharge of blood came on without pain. Prof. Nelson saw the case first, in his absence. The os was found undilated, but the hemorrhage had ceased. He pushed his finger through the cervix, and felt placental tissue. In two days flowing returned, but not excessive; soon it increased, and on the arrival of Dr. R. the patient was faint. Pains were good. The os was high, rigid, and dilated to just admit the index-finger. The hips were raised, and attempts made to introduce Barnes's smallest dilator, but without success. Next a rubber colpeurynter, covered with a linen handkerchief, was introduced, pressed against the os, and filled with water, and a dose of ergot and brandy administered. Soon blood appeared freely by the side of the bag, and it was withdrawn and the hand rapidly passed into the vagina, the index-finger forced through the os, now more dilated, and swept around the entire circumference, and the placenta detached. The membranes could not be reached, the part presenting forced strongly down. The hemorrhage now increased, and was most plentiful just following each pain. The vagina was now tightly plugged with wads of cotton batting "squeezed out in soapy water." Pains soon assumed the bearing-down quality; the patient was showing more exhaustion, and the hemorrhage was not entirely stopped. Thinking the os must be fully dilated, Dr. R. now rapidly emptied the vagina, and easily dilated the os sufficiently to admit the hand to the uterus. He ruptured the membranes and caught the knees, and made version easily. As the hand was withdrawn, the placenta came with it. The body being delivered, the head hung in the lower strait, and was delivered with forceps. During the operation of version the hemorrhage was frightful. The uterus contracted feebly, and the oozing of blood did not wholly cease. Tincture of iodine and water (one part to six) was injected into the uterus, and the bleeding ceased. The patient was nearly moribund, but reacted somewhat under the use of injections into the rectum of brandy and coffee. In half an hour hemorrhage recurred, notwithstanding the uterus seemed fully contracted. The diluted iodine was again injected, but death soon ensued.

In the discussion of Dr. Roler's paper

Dr. Byford gave his views at length on the subject of placenta prævia. He believed the distention of the part of the body near the neck begins in the latter part of the eighth month, and that of the cervix is accomplished mostly during the ninth month. The woman was in great danger as soon as hemorrhage began, and artificial premature delivery after the manner of Greenhalgh was advisable. If in any case the hemorrhage was not so urgent as to require the tampon at once, the liquor amnii should be evacuated, as it would stimulate the uterus to contraction, and cause the presenting part to press upon the placenta and constrict the bleeding vessels. The tampon of Dr. Roler he regarded the best; each pledget of cotton should have attached a string, and the vagina should be packed so full no blood could escape.

Dr. D. L. Miller said he thought that after the fourth month the cervical zone of the uterus developed, and that it developed beyond the growth of the placenta. Therefore, in placenta prævia, there was sliding of tissues upon each other, which caused rupture of vessels and bleeding. This hemorrhage he regarded as *unavoidable*. He favored the treatment of Greenhalgh. The tampon which he preferred was made of a strip of cotton cloth like that used for a roller. One end was carried to the os and the remainder introduced till the vagina was full.

Dr. Sawyer inquired if the uterine tissue over which the placenta was implanted was not more friable than other parts of the uterine substance. He had attended a case of perfect placenta prævia which resulted in death, in which there was found on post-mortem a rent four inches long in the uterine tissue at the point referred to. No undue violence was used in the labor.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

(Reported for The Medical Record.)

THE CURE OF HABITUAL DRUNKARDS.

A special meeting of the Philadelphia County Medical Society, Henry H. Smith, M.D., President, in the chair, was held on Wednesday evening, February 26th, to receive the report of a special committee consisting of Benjamin Lee, M.D., Chairman, Drs. R. M. Girvin, R. A. Cleeman, William Pepper, Andrew Nebinger, Frank Woodbury, John B. Roberts, Geo. Hamilton, J. G. Richardson, and William Goodell, which had been appointed to consider and report upon the best means of coping with the evil of intemperance.

This subject has been under earnest and thoughtful consideration for some time past by certain members of the Philadelphia County Medical Society. The subject was first proposed long since by Dr. Robert M. Girvin, of West Philadelphia, to whose energy and perseverance the successful development of the measure is largely due.

The attendance of members at the meeting was very large.

The following is the draft of an act which the committee submitted, as embodying all the necessary details of the plan which they have devised for the treatment of confirmed inebriates:

Section I.—*Be it enacted*, etc., That on the petition of any inebriate or habitual drunkard, by any relative or next friend who shall make the usual affidavit thereto, setting forth therein that now being addicted to the use of stimulants or narcotics, or both, he or she has become an habitual drunkard, and is unable to take care of himself, or herself, or property, and praying for the appointment of a committee for the purpose, with the certificate of two or more respectable physicians attached, whose signature and respectability shall be certified to by some magistrate or judicial officer that, after a personal examination of the petitioner within one week of the date of the certificate, they do fully concur in the facts stated in this petition, it shall be lawful for any Court of Common Pleas to appoint a committee of the person or estate, or both, of such habitual drunkard, with like effect as if made on the return of an inquisition under the

fourteenth section of the act to which this is a further supplement. (This refers to an act passed by the State legislature in 1836, and entitled, "An act relating to lunatics and habitual drunkards.") That the committee of any habitual drunkard, appointed under this act, shall, with the written consent and approbation of the court making the appointment, have the power of confining such person for treatment and care in any inebriate asylum, established, or to be established, under the laws of this State, for a term of not less than four or more than twelve months, and that such period of confinement may, by said committee, with both consent and approbation of the court, be from time to time extended for such periods as may be necessary for his or her complete recovery, cure, and reformation, and that said committee may also, with the written consent of the court, release at any time the said habitual drunkard from confinement.

That persons placed in any such inebriate asylum under the provisions of this act may be discharged by the managers, in whom the government of the institution is vested, pursuant to such rules and regulations as they may from time to time adopt in relation to patients and the management of the institution.

That the estate of any habitual drunkard placed in any such inebriate asylum under the provisions of this act shall be liable for his or her support and treatment therein, and the cost and expenses incurred in his or her case of all necessary proceedings.

That the term "habitual drunkards," under the laws of this Commonwealth, shall be construed and taken to mean any person addicted to the use of stimulants or narcotics, or both, as to be incapable of taking care of himself or herself, or their property.

The draft was adopted after considerable discussion, together with the following form of petition, to be signed by the officers and members of the Society, and to be sent to Harrisburg with the bill:

To the honorable the Senate and the House of Representatives of the Commonwealth of Pennsylvania in General Assembly met:

The undersigned, officers and members of the Philadelphia County Medical Society, respectfully represent that the well-established fact that the habitual, excessive use of stimulants and narcotics diminishes the moral powers, depraves or destroys manhood, and unfits its victims for the discharge of domestic business and civil duties, calls for legislative interference for the protection of the individual so affected, of his or her family, of society, and of the State.

Under existing laws in this State the property of the habitual drunkard can be protected, but he himself is allowed to drift into helplessness, crime, imbecility, and the grave, with no legislative effort to save him, beyond the meagre and inadequate Act of 1836, for those partially insane.

There are but few drunkards who would not gladly give up the evil habit of intemperance if they were able, but their moral force is gone. They need help. Such help can be most effectively rendered, in the opinion of your memorialists, by legal restraint and protection.

That the drunkard can be cured, restored to his family and made a useful member of society, is proved by the testimony of physicians, and by the happy results of treatment in every inebriate asylum in the country.

To establish a cure of the inebriate, it is absolutely necessary that he should abstain entirely from the use of stimulants and narcotics for such a length of time as will allow his system to recuperate from the ravages of disease induced by past indulgence, and to free itself from every particle of the poison. He is rarely able to do this of his own accord, and his friends have not sufficient control to compel him to do so. The result can only be accomplished by legal restraint in a hospital established for that purpose.

That he should not be placed in an insane asylum is testified to by almost every one in charge of such institutions.

Your memorialists would call your attention to the fact that action was taken upon this important subject by the Legislature of the State of Connecticut more than four years ago. They firmly believe that such action on your part would save hundreds of valuable lives, and hundreds of thousands of dollars to the Commonwealth annually.

To this end they beg respectfully to memorialize your honorable bodies to pass such an act as will give power to place the habitual drunkards and dipsomaniacs in properly constructed and responsible hospitals, where they can be restrained for such a length of time as will enable them to regain their power of self-control, and your memorialists will ever pray, etc.

The bill and petition were then referred to the same committee for presentation to the Legislature.

Dr. Benjamin Lee, Treasurer of the State Medical Society, Chairman of the special committee, and one of the principal advocates of the proposal, in the course of a conversation, gave the following expression to his views: "Under our present laws," he said, "insane persons and habitual drunkards are classed together. A measure entitled, 'An Act relating to lunatics and habitual drunkards,' passed in 1836, provides that any Court of Common Pleas in the State may issue a commission to inquire into the lunacy or habitual drunkenness of any person in the Commonwealth. This commission is given power to take charge of the property of the individual, and out of it to make provision for the support of himself and family. This law, however, has one flaw—while it allows the commission to place a lunatic under restraint it makes no provision for the incarceration of an habitual drunkard. It is this error that we desire to remedy. We hold that habitual drunkards may, in almost every instance, be reclaimed, and be made useful members of society, instead of being burdens upon it. This, however, can only be done by putting them entirely out of the reach of spirituous liquors, until a cure has been effected. Drunkenness is a disease which the victim is powerless to overcome without outside help. While under confinement he could receive such medical treatment as would restore the organs, especially the liver and stomach, to their natural condition, and in that way remove the craving.

"The system has been tried and has proved successful. We have nine hospitals for inebriates in the United States, and statistics show that out of 5,000 admissions, thirty-four per cent. of the patients have been cured, and forty per cent. benefited, while only twenty-six per cent. were returned as incurable. Dr. Forbes Winslow, the eminent English authority on insanity and intemperance, says that inebriate institutions are the crying want of the age. Dr. Thomas Kirkbride, the physician in charge of the Pennsylvania Insane Asylum, has placed on record his opinion that 'drunkards cannot do anything without help, and that without restraint it is impossible to

effect a cure,' while the State Board of Charities have expressed the opinion that 'inebriates need appropriate methods of restraint, attendance, and treatment, quite as much as the insane.' The proposed measure will merely authorize the confinement of inebriates in a suitable institution, leaving the institution to be established hereafter. In many cases the habitual drunkard is himself anxious to reform, and often he makes constant and energetic attempts to do so, but without avail. In such an asylum as we propose, a cure might be effected."

Correspondence.

THE ALTERATION OF PRESCRIPTIONS BY DRUGGISTS.

To the Editor of The Medical Record

Sir:—Dr. Fordyce Barker's article on "The Alteration of our Prescriptions by Druggists," vide Medical Record, page 22, Jan. 1, 1873, is an effort in the right direction. Not long ago a patient suffering from cystitis was given the following prescription: ℞. Ammoniæ benzoas, ʒ iij.; Buchu fl. ext. (Squibb's), ℥ iij.; Syrup simplic., ℥ i. M. S.: One tablespoonful every four hours.

I requested the patient to bring the medicine to me before using it. On inspection, the ordinary flaky appearance of the ammoniæ benzoas floating in the liquid was absent. I requested the prescription clerk to explain his method of dissolving the benzoate. "Why," said he, "I put them together in the mortar, rubbed them a little, and they dissolved (the flakes)." I immediately repaired to the store and asked the proprietor for an ounce of the benzoate. He said it was the first call he had had for it, and had never kept any in the store! There was no other conclusion than one in this case. He had not confounded it with carbonate, for he said he had used the benzoate. The reason for combining it with buchu was, my patient refused to take it in pill form.

In consultation with Dr. S——, in a case of phlegmonous erysipelas, we gave the following prescription: ℞. Potas. chlorat., ℥ ss.; Tr. ferri chlor., ℥ ij.; Syrup aurant cort., ℥ ij. M. S.: One tablespoonful every four hours. Having occasion to visit a pharmacy I found the messenger awaiting the compounding of our prescription. I overheard the following conversation: "We are entirely out of the chlorate, so I put in the acetate." This was said in an undertone to a member of the *firm*, whereupon the medicine was passed over the counter to the messenger. Dr. S—— having written the prescription, they did not know that I was acquainted with its construction or anything concerning it. In fact, they were not aware of my presence.

Another kind of substitution sometimes occurs, viz.: through presumption, in this case, a small boy was sent to one of our drug stores with a slip of paper, on which his mother had written, "One ounce of powdered rhubarb." On his way to the store he lost the paper. He told the clerk of it, and then said it was something like "rube" or "red," but could not tell the whole word. A powder was sent by the boy. The mother took a teaspoonful of it. I saw her *two* days thereafter. Her face and neck were swollen and congested. Her eyes were congested and glaring. Abdomen was greatly distended with gas, tender and reddened. The pain in the throat, œsophagus, stomach, and, in fact, the whole alimentary canal, was very excruciating. Marked anorexia, pulse weak and thready. She said "her whole insides were on fire." The odor of mercurial salivation was simply horrible. A continuous stream was flowing from the angles of the mouth. After her recovery she related in the presence of the boy the aforementioned circumstances regarding the purchasing of the powder. There was neither writing nor label on the package. The powder sent her was the red oxide of mercury. I at once repaired to the store from which the powder was purchased, and the clerk denied nothing, but said that he "*thought* he wrote poison on the outside." Physicians are in some respects simply "drummers" for the pharmacists. We send them their best class of business and rely on their honesty and skill, and, in fact, place the lives of our patients and our success as practitioners in their hands. Not only have these things happened here, within fifty miles of the principal city of this continent, and in a place of a population of about 14,000 souls, but I know of instances (one happening to myself) where the pharmacist induced a patient to have my prescription laid aside, persuading him in the meantime to have in its stead a bottle of a nostrum compounded and patented by himself. Is it not time to have a stop put to such outrageous proceedings?

Yours truly,
Regular.

January 27, 1879.

INGROWING TOE-NAIL.

To the Editor of The Medical Record.

Dear Sir:—My attention was directed to the following passage in an article by Dr. J. D. Neet, Medical Record, 1877, page 557: "There is a method of treating this nail that is quite as satisfactory as evulsion, far less painful, and, above all, is an eminently conservative process. In the first place, drop a few drops of liq. potassæ (ʒ iij. to ℥ j., etc.), upon this ulcerated surface, with its imbedded nail, four or five times a day." Continue this till the granulations have receded, so as to expose the edge of the nail, then "take a thin piece of selected cork—which is gently inserted under the nail." The following case will attest the merits of this treatment: Case, R. D. In May, 1874, a cow stepped on the great toe of her left foot and forced the nail in the flesh. When she applied to me, I found the nail one-third covered with flesh. I commenced using liq. potassæ ʒ iij., water ℥ j., as I supposed the above to mean, but was disappointed with the results, so I made a solution of caustic potassæ, ʒ iij., water, ℥ j., and applied twice daily. The granulations receded rapidly, and the edge of the nail was soon visible. I then inserted wedge-shaped pieces of cork under the nail, increasing the thickness of the wedge as the nail would rise from its bed. It is now three weeks since treatment was suspended, and the patient is able to wear her shoe, with no uneasiness of any kind.

A most happy plan of treatment, where the patient will await the results.

Very respectfully yours,
W. A. Fanning, M.D.

Ninth Ave., cor. 61st St., N. Y., Feb. 19, 1879.

Iodoformized Collodion (Moretin).—Dissolve five parts of iodoform in one hundred of collodion. Useful in arthritis and rheumatism.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 23 to March 1, 1879.

FITZGERALD, J. A., Capt. and Asst. Surgeon. Granted leave of absence for four months, on surgeon's certificate of disability, to take effect March 1, 1879. S. O. 42, A. G. O., February 20, 1879.

POWELL, JUNIUS LEVERT, appointed Assistant Surgeon U. S. Army, to date from June 6, 1878, having passed the Army Medical Board in session in New York City.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 1, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Feb. 22, 1879.	0	10	165	1	6	49	0	0
Mar. 1, 1879..	0	3	173	1	12	32	0	0

DEATH OF DR. RANDOLPH MARSHALL.—Dr. Randolph Marshall, Sr., an eminent physician of Cape May county, New Jersey, was found dead in bed at his residence in Tuckahoe on the night of Wednesday, Feb. 19th. Deceased was 69 years of age.

COLLEGE OF PHYSICIANS AND SURGEONS. — The Seventy-second Annual Commencement of the College of Physicians and Surgeons was held at Steinway Hall on the evening of February 28, 1879. The hall was filled to overflowing. The music was furnished by Grafulla's Band. The exercises were opened by prayer by Rev. Sullivan H. Weston, D.D., after which President Barnard, of Columbia College, administered the Hippocratic oath to the graduating class. The degree of Doctor of Medicine was then conferred upon the *ninety-five* graduates by Prof. Alonzo Clark, M.D., President of the Medical Faculty. The announcement of the prizes was made by Prof. T. M. Markoe, who stated that none of the essays received were sufficiently meritorious to receive the Stevens' triennial prize. The subjects for that prize for 1882 were "Lesions of the Brain" and "Diphtheria in its Relations to Membranous Croup." The prize is open to universal competition. The Joseph Mather Smith prize of $100, open to the Alumni, was awarded to Dr. William O. Moore, of the class of 1872. The *first* Hasen prize of $150, for the best report of clinical studies in the New York Hospital for any four consecutive months in the year, was awarded to Frederick M. Brown; the *second*, $50, to C. Hart Merriam; and the *third*, $25, to Wisner R. Townsend. Prof. Wm. H. Draper announced that six essays had been received for the Alumni prize of $500. Of those four were excellent, but neither was regarded sufficiently worthy to become a "substantial contribution to medical knowledge," and therefore no award was made. The prize will remain open for competition until 1880. Prof. John G. Curtis then announced three prizes of $100, $50, and $25, respectively, for the best public examinations sustained among ten members of the graduating class entitled by efficiency to compete therefor. The *first* prize was awarded to John Ward Hopper, A.B., of New Jersey; the *second*, to John Bernard McMahon, A.M., of New York; the *third*, to Theodore Wellington Corwin, of New Jersey. Three prizes of $500, $300, and $200, respectively, will be awarded next year from the accumulated Dr. Jacob Harsen prize fund to the three of the ten members of the graduating class who are entitled by high proficiency to enter for competition. The valedictory address was delivered by Dr. William F. Wright. The address to the graduates was delivered by Rev. Roswell D. Hitchcock, D.D. It was pithy, and contained much sound advice. Said the speaker:

"Just now I am convinced we are making too many doctors, such as they are; too many lawyers, such as they are; too many ministers, such as they are. I know that no profession is crowded—in its upper parts, but too much crowding at the bottom hurts the top, so that candidates for the higher ranks are fewer, if not inferior. I ask you is your profession yielding its proper proportion of great authors and practitioners and discoverers? I am better acquainted with the others, and I know that the legal profession does not yield its proper proportion of great jurists and statesmen, or the clerical profession its proper proportion of great preachers and theologians. Our educational system, I am constrained to say, is seriously defective in this respect." Dr. Hitchcock thought that if some of our professional schools would die the gain would be great. The next best thing was to establish a system of rigid, merciless examination. If the gain was temporary, it would prove the wisdom of such a course; if it was permanent, it would show that it ought to have been adopted long ago.

BELLEVUE HOSPITAL MEDICAL COLLEGE. — The Eighteenth Annual Commencement of the Bellevue Hospital Medical College was held in the Academy of Music on the afternoon of February 27, 1879. The Academy was completely filled. The music was furnished by a grand orchestra under the direction of Dr. Damrosch. The exercises were opened by prayer by Rev. Alfred B. Beach, D.D., Chaplain of the College. The Hippocratic oath was administered to the graduating class by the Chaplain. The President of the Faculty, Prof. Isaac E. Taylor, M.D., then conferred the degree of Doctor in Medicine upon the one hundred and sixty-five members of the graduating class. The prize of $200, which was offered by Prof. Lewis A. Sayre for the best essay on "The Pathology and Etiology of Pott's Disease," was awarded to Dr. Seth W. Williams, of New Hampshire. The address to the graduates was delivered by Hon. Richard O'Gorman. Among the rounded sentences to which the speaker gave utterance, the following is pregnant with suggestions: "It is superfluous, I trust, to call attention to the need of the utmost secresy in regard to the private matters that are intrusted to physicians, who indeed may be said to know the ages of all the village belles better than do the family Bibles. Some one has said that every one at forty is either a fool or a physician. The last can be numbered; but the former are beyond computation, and there are doubtless enough to supply [illegible] to come." The valedictory address was delivered by Hubert Haywood, M.D., [illegible] graduating class. The [illegible] in the evening.

Archives of Medicine, a bi-monthly journal, E. C. Seguin, M.D., Editor, 8vo., pp. 112. New York, G. P. Putnam's Sons. Subscription price, $3.00 per year; single numbers, 60 cents.

This new journal promises to be a very valuable addition to our periodical literature. It is designed to be, in some respects, the continuation of the "Archives of Scientific and Practical Medicine," and of the "American Clinical Lectures," of which the third volume closing the series was issued last December. The scope of the present journal includes original articles on various subjects sufficient to fill over half of each number; an editorial department where topics in scientific and practical medicine will be discussed; reviews of books, etc.; abstracts, translations, etc.; and a case record where short records of cases will be given. The fact that so eminent and thoroughly qualified a person as Dr. Seguin has been secured as editor, ensures all that is promised for this journal; and he has the aid of a most efficient corps of assistants and collaborators. The assistant editors are Drs. T. A. McBride, Matthew D. Mann and L. A. Stimson.

The opening article is by Dr. T. G. Thomas, on "A New Method of Removing Interstitial and Submucous Fibroids of the Uterus," an abstract of which has been published in these columns.

Dr. Mary P. Jacobi gives a "Provisional Report on the Effect of Quinine upon the Cerebral Circulation." From observations and experiments, made with her characteristic scientific precision, she is inclined to the opinion that large doses of quinine in man diminish the cerebral circulation; and that this is due, in part at least, to its effect in increasing the diastole of the heart which causes increased aspiration of blood to the heart, thus unloading the veins. In experiments on rabbits, however, the cerebral circulation did not seem to be much influenced by the drug.

"The Aid which Medical Diagnosis Receives from Recent Discoveries in Microscopy," is the title of a paper by Dr. C. Heitzmann. There is much in the article that is interesting, and its special aim, that of showing the clinical importance of the microscope, is very praiseworthy. The portion devoted to the author's theory, however, that the microscopical condition of the white blood-corpuscle is an accurate measure of the constitutional condition of its possessor, bears somewhat the impress of an imaginative mind.

The first of a series of "Elementary Lessons in Electricity," is given by A. Floyd Delafield, A.B., in a clear and systematic manner.

In the editorial department, Dr. Seguin discusses the present aspect of the question of tetanoid paraplegia, an affection characterized by impairment of the functions of the lower extremities without loss of power in those parts, a paralysis with rigidity and contractions. This affection was first described by Dr. Seguin, and it is to his credit that his earliest views of the disease appear to be still essentially the true ones, although much has lately been added by the French and Germans.

The articles above given are carefully prepared and clearly written. They will be interesting alike to specialist and general practitioner, with both of whom this periodical deserves to become popular. The journal is elegantly printed on fine, heavy paper, and presents a very attractive appearance.

Death of John Hugh McQuillen, M.D., of Philadelphia.—Dr. John Hugh McQuillen, the Dean of the Faculty of the Philadelphia Dental College, died suddenly in that city on Monday morning, March 3d, of disease of the heart. He was born in Philadelphia on February 12, 1826, and received his early education in the Friends' school. When he reached his majority he began the study of medicine and dentistry, and entered upon the practice of the latter in 1849. In 1852 he received the degree of M.D. from Jefferson Medical College. In 1857 he accepted the chair of operative dentistry and dental philosophy in the Pennsylvania Dental College, a position which he held until 1862. In 1859 he became editor of the *Dental Cosmos*, a monthly journal recognized as the organ of the profession. He contributed original matter to each number of the magazine, and his papers attracted marked attention. In 1862 he resigned his professorship in the Pennsylvania Dental College, and in the following year made application to the Legislature for a charter for a new dental college, to be styled the Philadelphia Dental College. The enterprise met with much opposition; the charter was, however, granted, and the following fall the college was started and lectures begun. Within the space of ten years the institution grew from a local to a cosmopolitan school. Dr. McQuillen was Dean of the Faculty, and occupied the chair of philosophy. He had been President of the American Dental Association, of the Pennsylvania State Dental Association, and of the Odontographic Society of Pennsylvania.

Index Medicus.—A monthly classified Record of the Current Medical Literature of the World, compiled under the supervision of Dr. John S. Billings, U.S.A., and Dr. Robert Fletcher, M.R.C.S., England. New York: F. Leypoldt, 37 Park Row. Subscription, $3 per annum, Vol. I., No. 1.

A medical journal is as much a necessity to the physician as the trade and stock list is to the man of business, or daily paper to the gentleman of leisure. He who shuts himself out from news of the day becomes narrow-minded and bigoted. A knowledge of the advances in medical science is to be obtained from the medical journals rather than from systematic practice. It is with pleasure that we notice a new periodical, the Index Medicus, compiled under the supervision of Dr. John S. Billings, U.S.A., and Dr. Robert Fletcher, Librarian of the Surgeon-General's Office, England. The reputation of the editors is a guarantee of the thoroughness of the work. It will be issued monthly, and will record the titles of all new publications in medicine, surgery, and the collateral branches received during the preceding month. These will be classed under sequel headings, and will be followed by the titles of valuable original articles upon the same subject found during the like period, in medical journals and transactions of medical societies. At the close of each yearly volume, a double index of authors, and subjects will be added, forming a complete bibliography of medicine for the preceding year. We do not see how any one can afford to be without this journal. It is a necessity, and we bespeak for it a hearty welcome, not only from those who are teachers, but from the busy practitioner everywhere.

Union in Ununited Fracture. A portion of a dog's bone was recently used in procuring union in a case of ununited fracture reported to the London *Lancet* (Oct. 19th), by Dr. Alexander Patterson.

BOOKS RECEIVED.

The National Dispensatory, by Alfred Stillé, M.D., LL.D., and John M. Maisch, M.D., Ph.D. Phila.: H. C. Lea, 1879. 8vo, pp. 1628.

Original Communications.

THE REMEDIAL AND FATAL EFFECTS OF CHLORATE OF POTASSA.

By A. JACOBI, M.D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 5, 1879.)

CHLORATE of potassa has been used in chemistry to develop oxygen. This appears to have been a sufficient reason for Simpson to recommend its use in habitual abortion, such as depended upon placentitis and insufficient supply, on the part of the fœtus, with oxygen.

It appears, also, that it is used for disinfecting ulcerations, having been recommended for that purpose for the same reasons. Now it is true that it changes the color of the blood, but the redness produced by it is no more intense than that which follows the mixture of blood with other alkalies.

It is further true that warm pus will reduce chlorate of potassa, but the same may be found to be true of other epithelial cells.

But many years ago Isambert and Hirne found chlorate of potassa eliminated without any change, and in large quantities, even as much as ninety-five or ninety-nine per cent. of the amount administered, in the various secretions of the body; that is, in the urine, the saliva, the tears, the perspiration, the bile, and now and then even in the milk; no oxygen was developed at all. In the mucous membrane of the respiratory organs it has also been found by Laborde. Thus, while the theory of Simpson was long ago given up, and while it was found that other alkalies would act just as well, and even better in cases of chronic placentitis and habitual abortion, it is just as true that chlorate of potassa holds a higher rank as a remedy in the treatment of certain not unimportant morbid affections.

Its principal value consists in its effect upon catarrhal and follicular stomatitis; further, in mercurial stomatitis, the former being a frequent and the latter a rare disease in infancy and childhood.

In the adult we have many opportunities to administer chlorate of potassa for the purpose of either relieving or preventing mercurial stomatitis. Infants and children, however, bear the use of mercurial preparations a great deal better than adults, at least as far as the local effect upon the cavity of the mouth is concerned. Infants show the local effect of mercury but very rarely, and even children two or three years of age will take mercury for some time before the slightest appreciable symptoms make their appearance upon the gums; even the external use of the oleate of mercury affects their gums but slowly. Thus, while there appears to be no necessity for the use of chlorate of potassa in these cases, still it is desirable not to neglect, at least, its local application whenever mercury is to be given for a certain period.

The other forms of stomatitis do not require nor indicate the use of chlorate of potassa to the same degree as the two forms above mentioned. For instance, the infectious stomatitis of the new-born and young infants, the so-called thrush or sprue, will, it is true, do well under the use of chlorate of potassa, but it will do well also, and almost as well, under the use of water only, or of salt and water, and still better under the local application of a solution of borax, (without sugar, or syrup, or honey), which destroys parasitic fungi more rapidly.

Diphtheritic angina is one of the forms of stomatitis and pharyngitis in which chlorate of potassa has been used extensively, but we shall find that it is not indicated, though on the same principles, to the same degree as in the other forms. It has also been used in catarrhal forms of ozæna, either by means of injections or other local applications. Further, it has been used in the treatment of toothache dependent upon caries.

In all of these cases I should recommend that it be given in plain solution in water, with no addition whatsoever, except, perhaps, glycerine. But not only the upper portion of the alimentary canal has been found, or believed to be benefited by the administration of chlorate of potassa, but in the opinion of a small number of authors, its use is indicated in catarrh of the intestinal tract. Bonfigli has even gone further. He recommends chlorate of potassa as a reliable remedy in the treatment of diarrhœa of infants depending upon vascular paralysis. He believes that he has seen favorable effects follow the administration of the remedy continued for one single day. He asserts that he has found improvement after its administration, relapse when the remedy was discontinued, and improvement again when the administration was renewed. He insists upon the use of large doses whenever there is intense depression of the general nervous system; for he assumes in those cases that fatty and amyloid degeneration of the walls of the blood-vessels, or extravasations and ulcerations of the walls of the intestines, have made their appearance. I have referred to his statements so fully in order to give at least one of the millions of instances in which the individual judgment is biassed, and medical progress is liable to be thwarted by enthusiasm, not complicated with reason. Even the mucous membrane of the genito-urinary tract has been believed to be favorably influenced by chlorate of potassa. Edlefsen administers the remedy both internally and externally in cases of catarrh of the bladder, and in large doses.

He believes that he has seen favorable re ults, and insists upon the innocuousness of the remedy which, according to him, is proved by a large experience. I may add, at once, that my own experience in the administration of chlorate of potassa in vesical catarrh has given no favorable results whatsoever; and although taking Edlefsen's results as facts, there are certainly other facts which seem to contraindicate the use of chlorate of potassa in just such cases.

My own position in relation to chlorate of potassa, when given in catarrhal and follicular stomatitis, I have stated above. In regard to diphtheria, I can give it in a few words (as I have referred to the same subject on former occasions, and particularly in my contributions to the pathology and treatment of diphtheria). It is this: that chlorate of potassa is a valuable remedy in diphtheria, but that it is not *the* remedy for diphtheria. There are very few cases of diphtheria which do not exhibit larger surfaces of either pharyngitis or stomatitis than of diphtheritic exudation. There are also a number of cases of stomatitis and pharyngitis, during every epidemic of diphtheria, which must be referred to the epidemic, perhaps as introductory stages, but which still do not show the characteristic symptoms of the disease.

When, in 1860, I wrote my first paper upon diphtheria, I based it upon two hundred genuine cases, and at the same time enumerated one hundred and

eighty-five cases of pharyngitis, which I considered to be brought on by epidemic influences, but which, the membrane being absent, could not be classified as *bona fide* cases of diphtheria.

Such cases of pharyngitis and stomatitis, no matter whether under the influence of an epidemic or not, furnish an indication for the use of chlorate of potassa. They will get well with this treatment alone. The cases of genuine diphtheria complicated with a great deal of stomatitis and pharyngitis also indicate the use of chlorate of potassa; not as a remedy for the diphtheria, but as a remedy for the accompanying catarrhal condition in the neighborhood of the diphtheritic exudation. For, it is a fact that, as long as the parts in the neighborhood of the diphtheritic exudation are in a healthy condition, there is but little danger of the disease spreading over the surface. Whenever the neighboring surface is affected with catarrh, or inflammation, or injury, so that the epithelium is loose or removed, the diphtheritic exudation will spread within a very short time. Thus chlorate of potassa or soda, which is more soluble and more easily digested than the former, will act as a preventive rather than as a curative remedy. Therefore it is, that common cases of pharyngeal diphtheria will recover under this treatment alone, nothing else being required.

The cases of diphtheria in which the exudation is limited to the tonsils are by no means dangerous, for the lymphatic communication between the tonsils and the rest of the body is none at all, or very trifling. Thus no absorption into the circulation can take place from a tonsillar diphtheritis alone. The surrounding stomatitis and pharyngitis will be favorably influenced by the administration of chlorate of potassa or soda, and thus the entire disease will run a favorable course, inasmuch as the tonsillar exudation will be removed within three or six days. The surrounding portions of the mouth and fauces in the meanwhile being put into a tolerably healthy condition, the danger is passed. These are the cases which have given the reputation to chlorate of potassa as a remedy for diphtheria.

The dose of chlorate of potassa for a child two or three years old should not be larger than half a drachm (2 grammes) in twenty-four hours. A baby of one year or less should not take more than one scruple (1¼ grammes) a day. The dose for an adult should not be more than a drachm and one-half, or at most two drachms (6 or 8 grammes), in the course of the twenty-four hours.

The effect of the chlorate of potassa is partly a general and partly a local one.

The general effect might be obtained by the use of occasional larger doses; but it is better not to strain the eliminating powers of the system. The local effect, however, cannot be obtained with occasional doses, but only by doses so frequently repeated that the remedy is in almost constant contact with the diseased surface. Thus the doses, to produce the local effect, should be very small and frequently administered. It is better that the daily quantity of twenty grains should be given in fifty or sixty doses than in eight or ten; that is, the solution should be weak, and a drachm or half a drachm of such solution can be given every hour or every half-hour, or every fifteen or twenty minutes, care being taken that no water is given soon after the remedy has been administered, for obvious reasons.

I have referred to these facts with so much emphasis because of late an attempt has been made to introduce chlorate of potassa as the main remedy in bad cases of diphtheria—and, what is worse, in large doses.

It is Seeligmüller who has especially recommended chlorate of potassa for that purpose in saturated solution. Sachse also looks upon a saturated solution of chlorate of potassa as a panacea, inasmuch as he did not lose a case out of one hundred, except those, as he says, "which were hopeless at the beginning." A young colleague in our State also recommends chlorate of potassa (six drachms daily) as his sheet anchor in diphtheria (Louis Weigert, M.D., *Hospit. Gaz.*, Jan. 16, 1879).

Seeligmüller administers a solution of one to twenty. Of this he gives children of three years and over a tablespoonful every hour at first — doses which amount to half an ounce in twenty-four hours; afterward every two or three hours. To children a little younger he gives half a tablespoonful, and continues the treatment day and night. He insists upon the necessity of not adding any syrup to the solution, and also of not allowing the patient to drink within a short time after the administration of the remedy. In his opinion the internal treatment suffices; still he advises that the solution should be used as a wash, a gargle, and also should be snuffed.

He says that the bad odor and fever, under that treatment, disappear within a very short time. The number of cases which he first reported as treated successfully in this manner was fifteen. At the same time he gave milk, broth, egg, and a small quantity of Tokay wine. These cases were published a number of years ago. Since that time he has modified his opinion to a certain extent. He says that chlorate of potassa may prove injurious, because of the possibility of the potassa acting *upon the heart;* and that, when it does, the heart's action becomes either more or less frequent, and may be intermittent. On the other hand he directs attention to the fact that diphtheria itself will act upon the heart in a similar way; and, as soon as such symptoms occur, quinine, coffee, and wine are recommended.

Digestion may also be interfered with by chlorate of potassa, inasmuch as when acute gastric catarrh is present the remedy is not well tolerated. In such cases smaller quantities must be given, or the drug must be discontinued altogether. In consequence of finding these drawbacks, he insists upon the above method of administering the remedy only during the first twenty-four or thirty-six hours. This modification he began particularly after a few of his patients *died with a sensation of burning and soreness.*

I have reported his practice so extensively, because I mean to raise my voice against it for the reason of its dangerousness.

As early as 1860, I advised strongly against the use of large doses of chlorate of potassa, but the translation of the paper I then published in the *American Medical Times*, which was printed in the *Journal fuer Kinderkrankheiten*, in 1861, was so defective, that I am not astonished at my warnings having been overlooked on the European side of the Atlantic. The treatment is dangerous, because of the largeness of the doses of the chlorate of potassa given.

Seeligmüller himself reports a case of a boy six years of age, who died within a very short time under the chlorate of potassa treatment, the main symptoms being copious greenish discharges, obstinate vomiting, and collapse. The kidneys were not examined after death, but the symptoms and the resemblance of these cases to a number of others of equal nature and result, prove them to be cases of nephritis depending upon over-doses of chlorate of potassa.

Lacombe had under observation a man who took one ounce of chlorate of potassa, intending to take an ounce of the sulphate of magnesia. The man died in convulsions, after having purged very freely, and the cause of death was regarded as *excessive diarrhœa*. The probability is that it was a case of nephritis.

Isambert, in his first reports upon the effects of chlorate of potassa, published more than twenty years ago, found among its effects increased diuresis, a sensation of heaviness and dragging in the lumbar region, such as is found after the administration of large doses of nitrate of potassa.

Ferris reports a case of death from cyanosis, with absence of pulse, within a period of thirty-six hours after taking a tablespoonful of the chlorate of potassa. He found the ventricles of the heart empty and contracted, while the auricles were distended with dark blood. The kidneys were not examined.

When I myself, nearly twenty years ago, took single half-ounce and six-drachm doses of chlorate of potassa, I had a sensation of heaviness and dragging in the lumbar region, and increased renal secretion. I did not examine for albumen.

The case of Dr. Fountain, of Davenport, Iowa, occurring at the very same time, is well known. He experimented upon himself, taking over an ounce of the chlorate of potassa, and died within four days of nephritis.

A case of death from chlorate of potassa, occurring in the practice of Dr. Krackowizer, I reported some years ago. It was that of a young lady who was told to use a solution of one ounce of chlorate of potassa as a mouth-wash and gargle. Instead of that, she swallowed the whole of the solution, and within three days died of nephritis.

I have also, before this, referred to one of my own cases; it was that of a man of thirty-odd years, who was told to use internally ten drachms of the chlorate of soda, within six days. Instead of that he took the entire quantity within six hours. Within twenty-four hours he suffered from diffuse nephritis. What little urine he passed was smoke colored, and afterward black. It contained a large percentage of albumen, blood, hyaline and granular casts. Then there was complete suppression. There was vomiting and diarrhœa, headaches, and coma. He died upon the fourth day, and the post-mortem examination exhibited acute diffuse nephritis.

Dr. J. Lewis Smith, in a meeting in which the above statements of mine were referred to, reports a case of a child three or four years of age (See Medical Record, p. 397, 1878), who took three drachms of the chlorate of potassa in one day. After that only a few drops of bloody urine were discharged, and the child died at the end of twenty-four hours.

In the same number of the same journal Dr. Hall reports a case of a child under one year of age, who took one drachm of the chlorate of potassa in a single night, and with exactly the same symptoms and the same results.

Conrad Küster (D. Zeitsch. f. prakt. Med., 1877, No. 33), for no other purpose but to prove the essential identity of punctated, maculated, membranaceous, croupous, and nephritic forms of diphtheria—similarly to most writers since Bard, Bretonneau, and myself amongst many—reports the following cases:

A young woman of twenty, vigorous and blooming. Mild angina. Small, white specks on tonsils. Feels pretty good. A strong solution of chlorate of potassa for gargling and internal administration. No doses, however, reported. The doctor found her dying at daybreak the following morning. Relatives said that vomiting and diarrhœa commenced in the evening, but that they all slept and were awakened in the morning by the laborious breathing of the patient. No post-mortem examination was made; urine was not obtained. There was no dropsy, but the skin exhibited a peculiar husky hue.

A man of thirty, in vigorous health. Trifling maculated diphtheritic angina. Strong solution of chlorate of potassa as a gargle and internally lime-water, besides. The tonsils cleared rapidly, but some malaise all the time. Urine albuminous. The doctor learned that the urine was peculiarly black on the third or fourth day. Gradual improvement, but urine albuminous a year and a half after.

A boy of three years, in good health; very mild, punctated, diphtheritic angina. Two other children had diphtheria seriously half a year previously, one of which died of laryngeal diphtheria. Gargle and administration of a strong solution of chlorate of potassa. Next day the doctor was notified the child was dying, and had passed black urine. So it was. The urine *was* black, a little greenish hue, moderately albuminous, the surface bluish white, the child dying. A good deal of vomiting. No dropsy. No post-mortem.

A girl of four, also robust and vigorous. Mild angina, some trifling whitish marks, hardly visible in the tonsils. Gargles and administrations of chlorate of potassa in strong solution. Appears nearly well, both locally and generally, within two days. But in the afternoon very suddenly vomiting, yawning, apathy, bluish-white complexion, accelerated compressible pulse, skin cool. In the evening some urine, black with greenish hue, albuminous, contained hematine. On the following days the color became more normal, and albumen less. On the fifth day the danger was over, but the pulse remained frequent a long time. No dropsy. A slight return of albumen on the sixteenth day.

Now Dr. Küster claims all of these cases as acute nephritis, and adds verbatim: "There is here a peculiar resemblance to renal irritation in carbolic acid poisoning. One is reminded of a medicinal poisoning, and would presume its presence if *carbolic acid had* been used for external application. In my cases the substance irritating the kidneys could be *none but the chlorate of potassa. However, as this effect of chlorate of potassa has not been observed*, as nephritis in diphtheria is, besides, nothing unusual, the latter must be claimed as the cause of the accidents."

Küster's facts are correct, his theory is not. His cases were mild, all of them tonsillar, no general symptoms, no adenitis; in fact there is no, or very little, lymph-vessel communication between the tonsils and the rest of the body. Two of his four cases terminated fatally in a very short time; two barely escaped. The same symptoms, the same nature of the disease in all. The cases seemed to the author like so many of poisoning by medication, *and so they were.* Unfortunately the author, otherwise known as careful, earnest, and conscientious, reports no doses, but in every case he speaks of *strong* solutions of chlorate of potassa, which appear to have been used rather indifferently or indiscriminately. If you have followed my remarks, and compare my own cases with his, and if I remember how deeply impressed many of my professional brethren were when I first mentioned my experience in public and in print, all of us will not hesitate to look upon his cases as such, of acute nephritis brought on by excessive doses of chlorate of potassa.

After all the previous remarks, the practical point I

wish to make is this, that chlorate of potassa is by no means an indifferent remedy; that it can prove, and has proved dangerous and fatal in a number of instances, producing one of the most dangerous diseases —acute nephritis. We are not very careful in regard to the doses of alkalies in general, but in regard to the chlorate we ought to be very particular. The more so as the drug, from its well-known either authentic or alleged effects, has risen, or descended, into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed but estimated; it is not bought by the drachm or ounce, but the ten or twenty cents worth. It is given indiscriminately to young and old, for days or even weeks, for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now than it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary œdema. Why is that? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy. Having often met medical men unaware of the possible dangers connected with the indiscriminate use of chlorate of potassa or soda, I thought this Society would excuse my bringing up this subject. It may appear trifling, but you who deal with individual lives, which often are lost or recovered by trifles, will understand that I was anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public at large.

CONCLUSIONS FROM THE STUDY OF ONE HUNDRED AND TWENTY-FIVE CASES OF WRITER'S CRAMP AND ALLIED AFFECTIONS.

By GEORGE M. BEARD, M.D.,

NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 5, 1879.)

During the past few years I have been specially investigating the disease known as *writer's cramp* and affections allied to it, as *telegrapher's cramp*, *musician's cramp*, and the *cramp of sewing-women*, and others engaged in occupations that draw so severely and exclusively on certain muscles as to induce weakness of those muscles and of the nerves that supply them.

These investigations have been pursued in various ways—by the study of cases in my practice; by conversation and correspondence with physicians from all parts of the country and other countries; by consultation with physicians in regard to cases, and by circulars of inquiry that have been noticed in various journals and brought to the attention both of physicians and the sufferers from the disease. The inquiry has extended to England, Germany, and Australia.

The conclusions at which I have arrived, stated in the most condensed manner possible, are as follows. I present the results without argument or discussion, reserving the details for a subsequent occasion, and shall here confine myself to those facts that are more or less novel and unfamiliar, and of the greatest scientific and practical interest.

The main results can be stated in these eight propositions:

First.— What is called the cramp is but one of a large number of the symptoms of this disease, and no two cases are precisely alike.

There are at least fifteen or twenty other symptoms of this disease. The recognition of these symptoms, especially in the early and premonitory stage, is of the highest moment, for the reason that in the early stage the disease is curable.

The cramp in those cases, where it appears, is oftentimes one of the later symptoms, and bears much the same relation to the disease that the symptoms of the ataxia gait bears to the disease locomotor ataxy. *In some cases there is no* cramp from *first to last*, and in all cases *the cramp is preceded or accompanied* by other *symptoms.*

The list of symptoms of writer's cramp is as follows: 1, *Fatigue, exhaustion;* 2, *dull, aching pain;* 3, *nervous, irritable feeling; general nervousness;* 4, *trembling, unsteadiness;* 5, *cramp, spasm, jumping, twitching, rigidity, contraction* of muscles (in some cases the pen is involuntarily hurled at a great distance, as across the room); 6, *stiffness* and *tightness;* 7, *powerlessness*, helplessness; 8, *numbness*, areas of anæsthesia, *tingling;* 9, *neuralgia;* 10, *burning*, stinging, dancing, prickly feeling; 11, *soreness;* 12, *throbbing* and *swelling* feeling; 13, *thrilling*, running, *electric* sensations; 14, *tightly-bound* feeling of wrist; 15, *coldness;* 16, *abnormal sensitiveness* to *touch* or *cold*, or *mental* influences; 17, disinclination to write; 18, *slowness* in writing; 19, *itching;* 20, *perspiration;* 21, temporary aphasia; 22, dryness of the joints; 23, swelling of the wrist and hand; 24, *actual paralysis;* 25, abnormal grasp of the fingers on the pen-holder or pencil—a very common symptom; tendency of the fingers, especially the middle one, to slip out of their places on the pen-holder, creating a desire by the sufferer to moisten them to prevent slipping; bearing down on the paper with unnatural or unusual pressure.

Many of the above symptoms are not confined to the hand, but extend to the forearm, arm, shoulder, neck, to the opposite arm, and over the whole body. It is clear, therefore, that the term writer's cramp is the worst possible misnomer, and that the disease has been most imperfectly understood in medical literature. It is wise, however, to retain the term both in scientific and popular circles, for in the prospective state of our knowledge no term capable of including precisely and exhaustively all the phenomena of the disease can be suggested. When any disease is designated by a term that is at once short, familiar, and easily retained, it is not well, as a rule, to attempt to displace it. To name diseases from prominent and special symptoms, and real or suspected factors in their causation is, during certain stages of medical progress, both natural and inevitable, as is illustrated by hay-fever, epilepsy, hysteria, insanity, neuralgia; and to attempt to substitute terms based on imperfect and changing knowledge of pathology, is to heighten the confusion that we would remove.

Secondly.—Also in the other forms of professional cramp, as that of telegraphers, musicians (violinists, organists, pianists, harpists), *sewing-women, painters, artists, dancers, hammer-palsy, and so forth, the cramp is but one of a number of symptoms, and by no means always the most important symptom; and, as in writer's cramp, there is frequently no cramp at all from the beginning to the end of the disease.*

There is no *one* symptom of the disease that can be said to be diagnostic. It is by taking a survey of *all* these symptoms, and by studying them in their relation to each other and to the history of the case that we are able to make out the diagnosis of writer's cramp, or of any of these allied disorders. This rule applies to the entire nervous system; there is not a disease known to neurology that can always be diagnosticated by any single symptom; all the familiar disorders of the brain, of the spinal cord, or of the peripheral nerves are studied not through isolated phenomena, but through groups of phenomena, acting and reacting on each other; pathognomonic symptoms belong to lecture-rooms and text-books, not to practical experience.* An analogous disease, that has not been described, is the *counting-money cramp*, from which a lady-clerk in the Treasury Department at Washington once suffered; it is caused by excessive and restricted use of the fingers in handling bills.

Thirdly.—This disease is primarily a peripheral and local disease of the nerves and muscles; secondarily and rarely it becomes central and general, or it may result from various central lesions; and it may affect any point between the extreme periphery and the centre.

This view of the pathology is a compromise between the old view that it was central, and the theory of Poore, of London, that it is purely peripheral.

No two cases are precisely alike in their pathology, but there is no question that in some exceptional cases the disease extends to the centres. That it affects the left hand as well as the right is no proof that the disease is central; it simply develops to the left hand when that hand is used, for the same reason that it affects the right hand.

The theory that writer's cramp is a result of lesion or disturbance of special co-ordinating centres in the brain is not sustained by a single properly-understood fact; on every point it fails to account for and harmonize the phenomena. So far, my own conclusions are in entire accord with those of Dr. Poore, of London, who has investigated this subject most intelligently and successfully.†

In truth, the detailed pathology of writer's cramp is not simple, but complex; in some cases there is neuritis which may affect a single nerve-branch or several nerve-branches, and may be restricted to the fingers and hand, or extend up the forearm and arm; then the muscles may be merely exhausted—chronically fatigued—or with a tendency to spasm and contracture. The worst phase of the disease that I ever saw was in 1874, with Dr. Brodie, of Detroit; in that case the arm was drawn over to the back, and held firmly there by the contracted muscles; the patient was unable to use his hand for any purpose, and also suffered great pain.

In some cases the disease, or rather the tendency to the disease, is hereditary—two and three cases having been known in a single family.

Fourthly.—This disease occurs mostly in those who are of strong, frequently of very strong, constitutions, and is quite rare in the nervous and delicate; and when it does occur in those who are nervous, is easier relieved and cured than when it occurs in the strong.

This fact is not peculiar to writer's cramp, but applies to other nervous diseases, as impotence, muscular atrophy, and ataxy. I see every day cases of nervous exhaustion (neurasthenia) in its various forms, and quite rarely do I see writer's cramp in them; and when they do have this disease, it is mild and curable. I have successfully treated a number of these cases.

Fifthly.—This disease is far less likely to occur in those who do original work, as authors, journalists, composers, than in those who do routine work, as clerks, book-keepers, copyists, agents, and so forth.

The reason is clear. Original thinkers must take time for thinking as they write, and thus they rest the nerves and muscles of the hand; while routinists, having little or no thinking to do, write on constantly and uninterruptedly, oftentimes at the extreme of their speed.

In some cases an attack of writer's cramp has followed a *single* task of long copying. In one of my cases—an authoress—there had never been any sign of the disease until she performed a task of routine work. Of my cases eight were physicians, eight were lawyers, five were clergymen, and the remainder were clerks, book-keepers, agents, copyists, and merchants.

Men who write bad, scrawly, illegible hands never have writer's cramp; it is the penalty for writing plainly and carefully. Like prevents like, and those who always write as though they had writer's cramp never have it.

Sixthly.—This disease, like all nervous diseases in this country, diminishes in frequency as we go South.

In the Gulf States writer's cramp and maladies allied to it are very rare. The same is true of hay-fever, which is a type of nervous diseases; and, indeed, of the whole family of functional nervous maladies, such as sick-headache and neurasthenia, or nervous exhaustion in all its manifestations.

In investigating this subject I have corresponded and conferred with physicians all through the South. Dr. Bryce, Superintendent of the Alabama Insane Asylum, Tuscaloosa, whose opportunities for observation have been very large, has written me a very interesting letter on this question.

Seventhly.—Writer's cramp is no longer an incurable disease.

In the early and forming stage, especially, it responds to treatment quickly, and in many cases permanently. During the stage of exhaustion, fatigue, and pain, with the other symptoms of numbness, neuralgia, irritability, trembling, powerlessness, soreness, coldness, stiffness, and so forth, this disease can be treated as satisfactorily as almost any other form of nervous disorder; and, even when cramp or spasms of the muscles have appeared, it may be entirely cured.

In the later stages, after the symptoms have existed for years, the malady may become absolutely hopeless, even though the patient abandon his occupation. I have seen cases that have been afflicted for over a quarter of a century.

One striking case of this kind I had opportunity to see through the courtesy of Dr. W. C. Wey, of Elmira, N. Y. Both hands were affected, and the numbness and powerlessness were so marked that sometimes a newspaper that he was reading would drop to the floor. The whole body seemed, indeed, to have been disturbed, and he had been obliged to give up his position as cashier of a bank.

In all these cases, the prognosis is better in nervous and delicate patients than in those who are phlegmatic and strong.

* Any [illegible] was [illegible] stand [illegible] and [illegible] the [illegible] was [illegible] pathology of the [illegible] able to prove [illegible] of pathogenic [illegible] and [illegible]

† Transactions of the London Medico-Chirurgical Society, vol. [illegible]

Eighthly and lastly.—The treatment of writer's cramp and affections allied to it consists:

1. In the use of electricity locally applied. Both galvanic and faradic currents may be used—preferably the former. In some cases galvanization of the spine and neck, and what are called spinal-cord nerve-currents, are indicated. Strong galvanic currents, with metallic electrodes, I have used with advantage in some cases where mild currents seemed to do no good. The wire brush with the faradic current I often use, and in some cases electro-puncture.

The relief of pain and fatigue that follows these electrical applications is immediate and uniform, and most grateful to the sufferer; and this temporary effect can be obtained even in the worst cases. I have not yet been able to demonstrate any very marked advantage from the rhythmical movements of the muscles in connection with the electrical applications.

2. Hypodermic injections of atropine, strychnia, duboisia, Fowler's solution, and other tonics, narcotics, and sedatives. These remedies need often to be gradually pushed to their physiological effects. Electricity and hypodermic injections combined have made an epoch in the treatment of writer's cramp. The evil effects of hypodermic injection are guarded against by care in preparing the solutions, by dilution of irritating substances, by moderately deep puncture, and by substituting other treatment in those cases where, from any constitutional tendency, suppuration is easily excited.

3. The internal use of calabar-bean, ergotine, iodoform, and in some cases of nerve-food, as oil and fats. It is useless, in the majority of severe cases, to dally with mild remedies or ordinary tonics.

4. *Massage*, or systematized kneading and manipulation of the muscles, with friction, and pinching, and pounding of the skin, and passive movements of the joints, large and small.

Dr. Douglass Graham, of Boston, has used this method with very encouraging success. I now employ it in all my cases. The whole arm should be treated.

5. The use of dry heat and dry cold, by rubber bags containing hot water or ice. These may be used alternately.

6. The actual cautery and very small blisters to the upper portion of the spine, or along the course of the affected nerves and muscles.

Rest alone, even long abstinence for many months from writing, will not cure writer's cramp, as has been proved by the experience of many cases. The best results I have ever had have been made with cases that kept right along with their occupation—although avoiding excessive work—with the aid of mechanical appliances.

Among the hygienic devices for the relief and cure of writer's cramp are the following:

1. The device for holding the pen—a ring-penholder—so as to relieve the thumb and fingers. An excellent arrangement of this kind has been perfected by one of my patients. By this contrivance the thumb is allowed perfect rest, and the index-finger and second finger are united by rings so as to make practically one finger, which is attached to the penholder. The over-use of the muscles most liable to be involved in writer's cramp is thus avoided. The gentleman who perfected this *ring-penholder* was himself substantially cured of a bad form of writer's cramp by its use in connection with electrical and other treatment, as above described. He is a bookkeeper, and can now follow steadily his occupation, although troubled at times with symptoms of weariness. He kept right on with his occupation during treatment.

2. The type-writer. This instrument is destined to be of great practical service to writer's-cramp sufferers, as well as to those who, though not having the cramp, are made generally nervous and locally tired by the mechanical labor of writing. During the past year I have made many experiments with this instrument, and studied carefully its relations to the nervous system, in order to determine these points. Unfortunately, book-keepers and those who write very short notes or messages and signatures cannot profit by the type-writer; but for those who write continuously the instrument is an almost perfect relief. After some instruction a reasonable degree of skill in its practical use can be obtained during the play-hours of two or three months.

Thurber's kaligraph, now almost forgotten, was an ingenious contrivance for writer's-cramp sufferers; but it is now superseded by the two inventions just noticed.

3. The use of large pen-holders, so that the muscles may be less restricted; fastening a piece of sponge to the penholder, so as to relieve the pressure of the fingers. One of my correspondents writes me that he used this device for a year.

4. Holding the pen between the different fingers, thus relieving the thumb and index-finger. One of my medical friends finds great relief by this device.

5. The use of quills and very flexible pens, and pens with very broad points, so as to run easily like quills. Some pens have been sent to me from Germany that are made with this special object in view. The use of the lead-pencil is also a great relief. The mica pen and the Esterbrook stub-pen are worthy of trial.

6. Frequently changing the pen and the penholder and style of pen, so as to change the mode of action of the muscle. Dipping the pen for ink is usually regarded as an evil, but it doubtless saves many of us from writer's cramp.

7. Changing the position in writing, as from sitting to standing, or holding the paper in the lap. These methods of relief are to be commended, especially for those who are just beginning to have the symptoms of the disease, who are yet in the stage of exhaustion. It is a mistake to always try to point the pen toward the right shoulder. When utterly tired out, it is well to stop entirely.

8. The avoidance of faulty and painful methods of writing, and the study of easy, natural methods. A person who writes a cramped and stiff style, no matter though it be a legible one, is a fair subject for attack, especially if writing occupies most of the time. This factor is of great importance. An eminent author and journalist is accustomed to put his pen in the penholder at an angle of several degrees backward, and thus is able, as he tells me, to write consecutively over forty words a minute.

9. Writing with the left hand. Out of 18 cases that tried this plan, 3 failed utterly, 6 were partially successful, and 9 were completely successful. In the 6 partially successful cases the disease either appeared in the left hand, or after a time showed a tendency to appear there. At the beginning of the disease, educating the left hand may be of itself sufficient for a cure.

10. The use of various gymnastic and athletic exercises, as rowing, paddling, and so forth. In some cases the sufferers are unable to do many other kinds of work; carrying bundles or turning door-knobs hurts them just as writing does; but such cases are exceptions.

Speed of Handwriting. In the study of this subject, I have made many experiments with a view to determine the average speed of handwriting. I find that between twenty-five and fifty words are written in a minute by those who are accustomed to write, the average being perhaps about thirty words when no time is lost in thinking or dipping the pen.

The method of experimenting that I have adopted is, to have the subject experimented on write something with which he is quite familiar—words of all lengths—for one minute. Practically, no one writes steadily as fast as these experiments would indicate, for, after a few moments of writing at the very top of speed, there will come to the majority a weariness; then the delay of composition also interferes.

These experiments were made with lawyers, physicians, clerks, book-keepers, scientists, and men of letters. Mr. T. A. Edison, the inventor, is also an expert in handwriting, and I have made with him a number of experiments in order to test the rate of speed of different varieties of penmanship. When he writes slowly and with care—from fifteen to twenty-five words a minute—Mr. Edison's handwriting is phenomenally clear and beautiful, resembling copperplate printing; not in a flowing, but in a cramped hand, the letters being often separated as in print. When he rises to forty words a minute, the writing is still more cramped and less beautiful, though yet legible; with forty-nine words a minute, his writing is quite illegible.

I find that journalists write with a lead-pencil—which, as a class, they generally use—from forty to fifty words a minute. Experts on the type-writer, according to my experiments, can print for a short time at dictation from seventy-five to one hundred words a minute; but in practice, very few of those who use the instrument put down on the average more than half that number.

A number of years ago a man attempted on a wager to make with a pen an enormous number of up and down strokes—a million, I believe, within a month or less time. Swelling of the hand and wrist, with severe pain, so annoyed the experimenter that it was necessary for some one to stand near him and pour on cold water and apply various lotions. In this cramped and continuous movement and tension of muscles is found the philosophy of all these forms of professional cramp. I have made some experiments with myself in order to ascertain just how many single disconnected up and down strokes I could make with a pen; and find that from 175 to 200 a minute is about the limit, and very soon the hand becomes wearied. A friend of mine, connected with the Surrogate's office in this city, tells me that the clerks in that department sometimes complain of swelling of the wrist from over-writing.

Mr. Edison, whose amazingly fertile mind is constantly making original suggestions even in departments quite remote from his own, showed me not long ago the following fundamental experiment. A small rod of steel or iron, or other hard substance, about one-third of an inch in diameter, is held very firmly between the thumb and forefinger of the left hand; very soon there comes a pain in the adductor of the thumb, which may be unbearable. This position is a familiar one to manufacturers of electrical apparatus, since it represents their method of winding wire on bobbins.

Telegrapher's and Musician's Cramp. The above practical conclusions in regard to treatment apply to the other forms of professional cramp, as that of telegraphers and musicians—violinists, organists, pianists, and harpists; also to the cramp of artists, painters, engravers, and sewing women.

Telegraphic operators have two forms of cramp—the ordinary writer's cramp, from receiving and writing out messages; and true telegrapher's cramp, from striking the index-finger on the sending instrument. The malady is quite a common one among telegraphers; and an attempt has been made to reduce its frequency by the use of a rubber cap on the button on which the finger presses in sending. This device is, I understand, but partially successful.

Musicians, when afflicted with cramp, have the same symptoms as writers, and are likely to suffer in both hands, although one hand may be affected quite differently from the other. In one case that I saw through the courtesy of Dr. Webber, the right hand, on beginning to play, showed contraction of the muscles of the thumb and index-finger, with a tendency upward; while in the left hand, at the same time, the second and third finger were firmly flexed into the hollow of the hand, so that they could be opened only with great difficulty. In a case now under my care, the right hand is affected in precisely the same way, while in the left hand the little finger only is disturbed. This form of trouble often comes from stretching the hand in playing octaves.

In another case the third finger of the right hand is raised involuntarily while playing; and in an organist now under my care there is simply stiffness and pain in the interossei between the third and little finger, and anæsthesia of the back of the hand. In the case of a very eminent violinist the muscles of the left arm and forearm, and also the fingers, were so weak and exhausted from long holding the violin in position, that he had to abandon his profession.

I have succeeded in curing a long-standing case of pianist's cramp, where the symptoms seemed to depend on a neuritis, excited originally by exposure to cold in bathing, and made worse by severe practice at the piano. In this case there had been great uneasiness, and even severe pain after playing, and he had abandoned his profession. He is now able to play several consecutive hours without fatigue.

THE ECCENTRIC GENUCLAST.

By C. FAYETTE TAYLOR, M.D.,

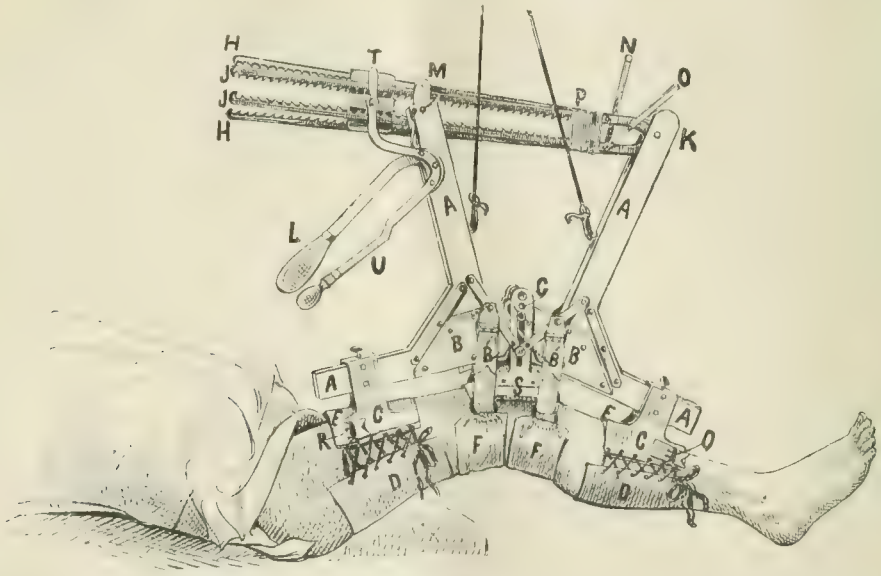
NEW YORK.

Whatever practical value the "new osteoclast"* may ultimately prove to possess, in affording a more simple solution of certain questions growing out of distortions after unarrested coxitis, or in shortening after fractures instead of osteotomy, its employment must, necessarily, be somewhat restricted for the want of appropriate subjects. But it has long been felt that there was a necessity for a practicable genuclast, and that an instrument for reducing flexions, overcoming contractions and breaking up osseous and fibrous adhesions at the knee-joint, if at once simple and adaptable, would be a boon to the profession. We are continually meeting with cases of simple contraction of the hamstring muscles, which, with our present means, can only be reduced after tenotomy, because these muscles are too strong to be overcome, with practicable force; or where the stretching cannot be repeated often enough to accomplish permanent results, without so many annoying difficulties as to

* Read before the New York Surgical Society, and published in the Medical Record, [illegible] ments, the use of the [illegible]

amount to a preclusion of the operation, in cases where it is plainly indicated. Again, there are many cases of commencing adhesions between the articulating surfaces, which, it would seem possible to prevent from progressing to anchylosis, if we possessed the means for breaking them up without, at the same time, seriously injuring the joint, in the necessity we have been under of making it the fulcrum of the force applied. So that the surgeon has been obliged to wait for the joint-inflammation to fully subside before operating, thus giving time for the adhesions to become firm and osseous deposits to take place, as well as necessitating the use of much greater force in the operation than would have been required if the same thing could have been done at an earlier stage of the reparative movement, without relighting an inflammation. The crude and unhandy way in which anchylosis at the knee-joint has hitherto been broken down, when anything at all has been attempted, has been enough to deter surgeons from operating as often as it, no doubt, might profitably be done with a well-constructed genuclast.

The want of such an instrument was forcibly impressed on my mind, several years ago, when I was called to a case of flexion at the knee-joints, which



quite a number of eminent gentlemen had attempted to straighten without permanent success. The evident necessity for an instrument for *force brisée* operations on the knee-joint has resulted in the perfected machine which I have called "the eccentric genuclast," and will presently describe. Nothing could demonstrate the absolute necessity for such an instrument better than the case above alluded to. It was that of a lady, about forty-five years old, of a gouty diathesis, and an uncommonly sensitive and hysterical temperament. A slight arthritis in the knees served to excite uncontrollable terror of any movement, which she feared might cause pain, with the effect of keeping her in the sitting position for three or four years, and until the muscles had become stiff and the knee-joints immovable. I can positively assert that there was neither inflammation, swelling, adhesions, nor local tenderness in or about the knees when I saw her, and that the only restriction to the motions was the rigid and inelastic condition of the muscles from inaction. There was extreme hyperæsthesia of an hysterical character, as before said, with dread, but no joint disease adequate alone to produce loss of motion. Twice this lady was etherized, and the legs extended by main force, pressure being applied directly over the joints sufficient to crush them down. Of course, the knees were made the fulcrum of the force applied to overcome the flexor muscles which were shortened and rigid from position. After the limbs were thus straightened out, apparatus was applied to keep them straight. But the articulating surfaces of the joints had been so bruised by the operation that she was in agony until the retaining apparatus was taken off and the knees relieved by bending. After repeating the process on two different occasions, without advantage, the case came into my hands. On listening to a history of the case, it immediately occurred to me that the failure was due to not providing against the necessity of using the knee-joint as the *point d'appui*. To avoid such articular pressure, I used a strong counter-extension hip-splint, and found no serious difficulty in straightening the limbs, and in keeping them straight without pain to the patient. Though extension at the knee-joint was made by the counter-extension hip-splint, it was by no means a perfect machine for the purpose. But it protected the joint from injury while the leg was extended on the thigh, the operation was relatively painless, and thus its use conclusively demonstrated an important principle. I mention this case merely to illustrate this one point. It then occurred to me that, if an hyperæsthetic joint could be extended with impunity in a case where the old methods had been carefully tried and had conspicuously failed, what must be the advantage in joints which had been seriously diseased? In straightening the limbs, in this case, I found that there should be a combined movement under regulation and control of both extension and counter-extension. Carrying out this principle, in other cases which I have practised on since, the result has been the eccentric genuclast, which I will now describe.

The genuclast may be seen applied in the figure. It consists of two pairs of clear, strong, ash bars, one inch and three-quarters square, *A A A A*, each pair

fastened together at right angles by strong mortised joints, which are further strengthened by the steel plates *B B*, which are securely bolted across from one arm to the other. On the lower or horizontal arms are the adjustable flanges *C C*, in the edges of which are holes for lacing the leather bands *D D*, which pass under the limb. To the flanges are also fastened the fixed leather stays, *E E*, which pass over the limb, and on which the instrument rests. *F F* are bands made of flannel, covered with chamois, which pass under the knee, as shown. The two parts are connected by and vibrate on the bolt *G*, which passes through projecting ears of the plates *B B* at a point three inches beyond the edge of the uprights, and as far above the lower angles *B' B'* of the plate. By this arrangement the angles are alternately approximated or carried apart with every vibration on the pivot *G*. From each end of the same bolt T-shaped flanges, *S S*, are projected downwards about two inches below the lower edge of the horizontal arms, and carry a piece of packing rubber which is curved from one to the other over the knee. While the elasticity of the rubber allows the patella to bury itself in it, it yields no more and will bear all necessary force without stretching. This arrangement is intended to prevent bruising the knee. The flange, *S*, is kept in position by the two braces, as shown. At the top of the vertical bars are two pairs of steel rods, *H H* and *J J*; one pair, *H H*, having concentric racks, and the other, *S S*, having eccentric racks on their inner edges. These rack-bars are fastened to one upright by a common bolt at *K*, and pass through the upper end of an operating lever, *L*, above and below the pivot, *M*, on which it works when in use. *N* and *O* are pawls which throw the racks out of gear when elevated (as at *N*), and allow the rubber spring; *P*, to act and cause the racks to mesh on pins in the lever when depressed (as at *O*). With *N* vertical and *O* depressed, the eccentric racks are engaged, and, by moving the operating lever *L*, the uprights are forced apart and the knee bent; while, with *N* depressed and *O* vertical, the concentric racks are engaged, the uprights are drawn together and the knee straightened. But, in straightening, the angles *B' B'* are separated and the horizontal arms are made longer—carrying the upper and lower portions of the limb along with them and tending to separate the joint. There would be a strong extension at the knee with no other than the friction of contact. But, in cases of anchylosis, or where considerable force must be used, adhesive straps are applied to both thigh and leg, which are attached to the buckles *Q R*, at the extremities of the flanges *C* and *C*, so that in operating the lever *L* with the pawl *O* vertical and *N* depressed, there is extension of the leg on the thigh; and, at the same time and through the same moving force, counter-extension also at the knee-joint. Thus the knee-joint is effectually protected from hurtful pressure, either downward by the weight or action of the machine, or, concentrically, within the joint. It should be suspended and controlled by a cord and pulley, as seen. Whatever force is required to overcome the muscles or to break up or rupture osseous or fibrous adhesions, is received on the apparatus instead of impinging on the articulation. The movement may be instantly changed by altering the positions of the pawls *O* and *N*, from flexion to extension or the reverse.

And in cases where extraordinary force is necessary, or where no anæsthetic is used, the flexion or extension, as the case may be, may be let back from each extreme point, very slowly and carefully, by using the lifter *T U*, by which the racks may be lifted over tooth by tooth, and the tension gradually diminished, without shock or pain to the patient. In cases which resist less, the action of the instrument may be directly reversed, and thus motion in a stiffened knee-joint may be kept up without pressure or friction against the articulating surfaces.

The following two cases will show the practical utility of the eccentric genuclast in cases not amenable to the application of force, by any other means that I am aware of.

The first is a case of articular rheumatism, of eight years' standing, in a lady forty-eight years old. All, or nearly all the joints were more or less affected, but the greatest difficulty was experienced from the flexion and stiffening of the knee-joints, as the acute stage passed away and the chronic stage of the disease supervened. She was unable to walk, but managed to hobble by turning the knees outward and using crutches. There was a little motion and not much tenderness, considering the disease. She was subjected to three operations on each knee, under ether, with the effect of increasing her height two inches, and diminishing the flexion and increasing the motion at the knees so much that she could get about very comfortably. But the interest of the operation consists in the fact that she felt no effect whatever upon the joints as a consequence. She was a large, powerful woman, with thick, strong muscles, and the amount of force employed was, to me, astonishing. But she was invariably up and about the next morning the operations always occurred in the afternoon—or as soon as she had recovered from the effects of the ether, and not only denied having any tenderness in or about the knee-joints, but would proceed with the passive movements, which were a part of her treatment, just as if nothing had happened, only there would be an increase of motion. The time required to increase this lady's height two inches was ten weeks. She was heard from six months after she went home, and, up to that time, retained all the improvement which she had when she left.

The other case was one of traumatic inflammation of the right knee-joint in a lady thirty-five years old. Four years before she fell on the ice, hitting the knee, and, within a few hours, was taken with acute inflammation of that joint. The history of the case shows that she was confined for some six months with acute inflammation of the joint. After a while abscesses formed, one after another, some of them discharging bone as well as pus, and the knee bore evidence, in its cicatricial markings, of the injury it had sustained.

The limb was flexed at a right angle, and perfectly rigid; the lady was very stout; there was still a small opening near the outer hamstring discharging a small amount daily, and there were brown, indurated patches about the upper and inner aspect; and, altogether, it did not seem to be a very promising knee to operate on. But I conceived the idea that the great flexion, in connection with the large amount of adipose in the popliteal space, might be unfavorable to the circulation and nutrition of the parts. Also to still further test the application of the genuclast, in a case of progressing inflammation, I resolved to try it. So on the 2d of May, 1878, in presence of Drs. Lewis Fisher and D. B. St. John Roosa, the instrument was applied, and the leg extended on the thigh until the flexion was reduced about one-half. The limb was then placed in a retaining apparatus which kept up a certain amount of counter-extension. During the operation, after the lever "L" had been moved a number of times, and the tension had become very great, a dull thud was heard, and the leg was immediately

extended, all that it was thought advisable to do at that time. The skin under the knee had begun to crack, and I feared that some of the vessels might be ruptured if the extension were carried any further until after the parts had had time to accommodate themselves to the new position.

Considerable discomfort was experienced during forty-eight hours after the operation, but it all proceeded from the stretched muscles and torn skin, and not at all from the joint. There was no increase of redness over the indurated patches on the inner aspect of the knee, nor any other symptoms to indicate that the articulation had suffered in the slightest degree from the force which had been applied. On the 11th of May, or just one week after the first operation, it was repeated.

This time the extension was carried to a point which was considered the most favorable for anchylosis to take place, and the limb was put up in the same retaining apparatus, but it had been straightened to suit the more extended position of the leg.

Everything seeming to be favorable, she left for home about two weeks after the second operation and resumed her business of teaching. On the first of October she returned for examination and further advice. I found less color and induration in the soft parts before mentioned, the sinus had closed several times, and, though opening again, there was less discharge; there was no tenderness about the joint, and there was some motion.

This case will be watched with much interest. But, be the ultimate result what it may, the immediate effects so far seem to point to the conclusion that the rigidity of knee-joints after articular rheumatism may be greatly ameliorated; and, more important still, that incipient anchylosis may be broken up, and retracted muscles overcome by repeated operations, without injury to a chronically inflamed knee-joint, when the eccentric genuclast is used for the operation. If this should prove in other cases to be the usual result, it seems to me that the conception which has given birth to this apparatus opens up some questions of very great interest to the profession.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Items of Treatment.

INFLAMMATORY SORE THROAT—SIMPLE TONSILLITIS.

A MALE patient, æt. 20 years, was seen who had been sick two days. He was taken with a chill, which was followed by a fever and a feeling of soreness in his throat. His brother looked into his throat, and informed him that he had diphtheria. He then went to a physician, who also told him that he was suffering from diphtheria. He made application for admission to a hospital for children, was told that adults suffering from diphtheria were not received, and he then obtained admission to this hospital. He was admitted on the evening of the day he was taken sick. At that time his temperature was 103° F. On the following morning the temperature was 101¼° F., and in the evening 102° F. On the next morning his temperature was 100° F.

The appearance of his throat had changed so much that there was nothing special to be seen, except swelling and redness of the tonsils, the mucous membrane of the pharynx, and the uvula. The white patches which were upon the tonsils had entirely disappeared.

The patient had suffered, not from diphtheria, but from simple tonsillitis, or that form in which there was deposited a considerable amount of white matter upon the tonsils. It was remarked that such cases were very frequently mistaken for diphtheria. It was, however, regarded as a case of ordinary sore throat, which had been characterized by symptoms rather more severe than those usually present.

In this connection, reference was made to two cases of sore throat in which the symptoms deviated from those ordinarily present sufficiently to make them worthy of special mention.

ŒDEMA AND CONGESTION OF THE UVULA—URGENT DYSPNŒA—OPERATIVE INTERFERENCE.

The *first* was in a gentlemen about 45 years of age, strong and vigorous. On examining his throat it was found that both tonsils were swollen, and regularly and symmetrically dotted with small white spots, indicating that each of the orifices of the crypts of the tonsils contained a white plug of mucus and epithelium. The patient had no febrile movement. On the following day, however, he was worse, the tonsils were more swollen than on the previous day, and the inflammation had extended to the pharynx.

The inflammation increased in severity from day to day; the tonsils became more and more swollen, and the swelling of the uvula and the mucous membrane of the pharynx became more and more marked. The uvula became enormously swollen. As the severity of the symptoms gradually increased, he as gradually lost his voice. On the fourth day he began to have considerable dyspnœa, especially when lying. At the end of the fourth day the dyspnœa became quite alarming. During the entire night he was scarcely able to get his breath, and spent most of the time in coughing and gagging efforts to obtain inspirations. On the next morning the dyspnœa was still more marked. During one attack he became almost cyanotic, and it was thought he was dying. When examined, it was found that the tonsils and uvula touched each other, and were so much swollen that it was impossible to see the pharyngeal wall. It seemed evident that the dyspnœa, to a very great extent, was caused by the swollen uvula. The uvula was as large as an ordinary thumb, and it seemed to act as a barrier to the entrance of air into the larynx. The indications were pressing, and the uvula was at once slit with an ordinary sharp-pointed bistoury thrust into it, and cutting directly downward. This gave the man relief very promptly, and during the course of the day the relief was still more apparent.

On the following day it was evident that suppuration was taking place in one of the tonsils which had been extensively swollen, and soon after rupture of the walls of the abscess occurred, and pus was discharged from the mouth. Very marked relief followed the evacuation of the pus, and the patient was soon convalescent. The entire duration of the inflammation was about two weeks, and at one time there was really considerable danger of suffocation.

PHLEGMONOUS INFLAMMATION OF THE UVULA—URGENT DYSPNŒA—INCISION—RECOVERY.

In the *second* case the condition was more unusual than that seen in the case just related.

The patient was a young woman. On examining the throat it was found that the tonsils were slightly swollen, and that there was considerable pharyngitis.

She had been subject to ordinary attacks of sore

throat, and had also had several attacks of suppurative tonsillitis.

A palliative remedy was ordered. The patient came under observation five days afterwards, when it was found that during the entire time she had been gradually getting worse. There was, however, no febrile movement, but she had not been able to take any food for two days, because of the pain which was produced by any attempt to swallow. She had not been able to lie down, because as soon as she made the attempt she felt as though she were choking. When her throat was examined it was found that apparently the tonsils were no more swollen than at first, and they were perfectly clean. There was a moderate amount of general pharyngitis, but the surface of the mucous membrane was entirely clean. The uvula, however, was very much swollen, and the swelling was particularly in its antero-posterior diameter. It was not only swollen, but it was extremely congested; it was of a purple color. In addition to the swelling and congestion, the uvula was completely covered with a material which presented very much the appearance of false membrane—a pretty thick layer of whitish material. The appearance suggested the presence of diphtheria.

The conclusion was however reached that it was a case of inflammation of the uvula, the inflammation involving not only the mucous membrane, but all the tissues of the uvula. In other words, it was regarded as a case of phlegmonous inflammation of the uvula, and the coating which was present was really nothing more than mucus produced by an excessive action of the mucous glands and follicles.

The dyspnœa was not particularly alarming, although she could speak only in a whisper.

On the following morning the dyspnœa was considerable, and she had attacks which were very severe. She was then able to speak only in a very low whisper, and some doubt was felt as to whether a mistake in diagnosis had not been made, and that it was really a case of diphtheria, which had extended into the larynx.

The throat, however, presented the same appearance it did the day before, the evidence of inflammation being confined entirely to the uvula. But the dyspnœa was rather that of œdema glottidis than that produced by any change in the larynx. It was chiefly upon inspiration, and was not attended by any laryngeal voice or laryngeal cough. She was able to fill her lungs without difficulty when she was sitting up and was quiet. The dyspnœa, however, was so alarming that the necessary steps were taken to have some one ready to perform tracheotomy at any time in the course of the day, if it became necessary. In the meantime the plan of treatment adopted in the first case was carried into effect, and the uvula was incised with a sharp-pointed, curved bistoury, as in the preceding one; incision of the uvula was followed by almost immediate relief. The woman continued to improve, within twelve hours the dyspnœa had entirely disappeared. In addition to slitting the uvula, a gargle containing tannin and iodoform was ordered. The coating of mucus which was upon the uvula quickly disappeared, and it was then evident that there had been phlegmonous inflammation of the uvula. For it could be seen that the tip of the uvula had fairly sloughed, and there was left behind a surface which had commenced to granulate.

Abscess of the Kidney by Aspiration.—Arthur Lucas, M.R.C.S., reports (*Lancet*, Sept. 28th) the successful treatment of a case of abscess of the kidney by aspiration.

Progress of Medical Science.

Cerebellar Lesion with Hemiplegia and Aphasia.—Dr. Ringrose Atkins reports a very interesting case, which is extremely important in its physiological bearings.

The patient, æt. 38 years, was admitted into Waterford Asylum, May 8th, '77; she had been of an excitable and eccentric disposition from childhood, and occasionally had mild epileptic fits since youth. Some time ago she had a severe epileptic seizure followed by right hemiplegia and aphasia, which lasted three weeks, but she completely recovered. A little time before admission she had occasional paroxysms of violence, and developed various delusions. On the morning of June 8th she was found to have become affected, during the night, with right hemiplegia and complete aphasia; sensation was also completely abolished on the paralyzed side. On June 13th the patient suddenly became affected with unilateral right-sided convulsions; she died on June 16th.

Autopsy.—The vessels of the arachnoid and pia mater were distended with dark-colored fluid blood. The vessels at the base of the brain were atheromatous. No embolus or other plugging of the vessels could be detected even in the minute divisions of the middle cerebrals. Both opto-striate bodies were flabby and flattened, the posterior extremity of the left optic thalamus more markedly so. The left lateral lobe of the cerebellum was so softened and broken down that a considerable gap was produced in its external border.

Ferrier states that it is established beyond all question that lesions of the cerebellum do not cause hemiplegia of the opposite side of the body, except when it produces compression of the subjacent track of the pons and medulla. There is also overwhelming evidence in support of the assertion that cerebellar lesions do not cause loss of tactile sensation. With this seeming contradiction, the hypothesis of Brown-Séquard cannot be overlooked, that the lesion of the cerebellum may have produced the paralysis by an irritation which restrained and arrested the action of nerve cells, at a distance from the seat of the lesion (inhibition). The question arises whether the hemianæsthesia was connected with the partial wasting of the left optic thalamus, but this cannot be answered satisfactorily. Keeping in mind the morbid conditions occurring elsewhere, this state of the optic thalamus, with the probable degeneration which existed both in its histological elements and in those of the corpus striatum, gives some show of support to the hypothesis that the functional activity of these ganglia, already weakened, was finally arrested by the irritative lesion in the cerebellum, the route by which the motor impulses travel downwards from the speech centre, being at the same time interrupted and resulting in aphasia.—*Brain*, Oct., 1878.

Congenital Absence of Hand, and Corresponding Atrophy of the Brain.—Dr. W. R. Gowers, in "*Brain*" of Oct., 1878, gives the results of an autopsy in a case of congenital absence of one hand. Dissection of the arm showed that the bones of the forearm were normally developed, but that at their extremity there was only an irregular mass of bone, apparently corresponding to the carpus.

The two hemispheres of the brain were nearly of the same size. The frontal and ascending frontal convolutions were nearly of the same area, but a marked

difference existed between the two ascending parietal convolutions. At their origin in the longitudinal fissure they were quite equal in size, and continued so for the upper inch and a half. In the next (middle) two inches there was a very marked difference, the right being a narrow single convolution, and the left broad and depressed by a slight secondary sulcus. The lowest extremities of the two convolutions were equal in size. Otherwise, the two sides of the brain were alike.

The chief interest of the case arises from the fact that the diminution of size in the ascending parietal convolution on the opposite side of the brain occupies precisely the area, stimulation of which, according to Ferrier's experiments upon monkeys, causes movements of the opposite hand. In several instances, in cases of old amputation of the arm, an atrophy has been found, but it has been slight and has not been uniformly localized. The strict limitation of the atrophy to the hand region, in this case, affords striking support to the experimental results.

Insanity Cured by Treatment of a Uterine Displacement.—In a communication to "Brain" of July, 1878, on the cure of a case of insanity by the correction of a coexisting uterine displacement, Dr. Savage gives the following history: E. G., married, æt. 45 years; no hereditary tendency to insanity; has just passed the change of life. Symptoms of insanity began two months ago; the patient began neglecting her home duties, attempted suicide, and had delusions of "persecution." Morphia was tried, but it produced sickness and did no good; patient remained in same mental condition for two months. Dr. Savage then discovered that she had a large, heavy uterus, which was much prolapsed, and accordingly kept her in bed for some days. She was more quiet at first, but, finding that the uterus would not keep its place while the patient was lying down, Dr. Savage introduced an air-pessary, and thus maintained the womb in position. Within twenty-four hours the patient was feeling better, and evidently improving in intellect. Within a week she was comfortable, but the temporary removal of the pessary again caused mental distress.

In three weeks from the introduction of the pessary she returned to her family, and has remained quite well ever since (a period of four months).

Syphilitic Epilepsy.—From records of 274 cases of epileptiform seizures of an undoubted syphilitic origin, Dr. Thomas Stretch Dowse summarizes his observations very briefly as follows: The age of the patient is an important guide. Should a man or woman be attacked by epilepsy between thirty and forty years of age, without having any hereditary predisposition, or a previous seizure, then a syphilitic cause may be apprehended. And, apart from this, provided that between the attacks there is more or less mental derangement, our basis for a diagnosis is greatly simplified, and it is even more so if there be a paresis more or less profound, localized, or unilateral, but gradually passing off after the epileptiform seizure. The reflex processes are rarely if ever completely absent. The iris may contract under the influence of a strong light; the lips close when the conjunctiva is tickled, and a state of anti-consciousness, rather than profound coma, is a prominent feature from first to last.

The stages of the attack are ill-defined, and merge the one into the other. The universal tonic spasm, with thotonism, rarely presents itself. Pallor, rather than cyanosis, is the facial exponent, and the duration of the fit is protracted to many hours, with intervals of wandering, delirium, and excitement. Foaming at the mouth is less prominent than a profuse flow of saliva, and all sorts of cries are associated with the seizure; but they are rarely so exalted as Romberg expresses it, "Shrill and terrifying to man and beast."

And, lastly, in reference to albumen in the urine. Considerable attention has been given to this point, but it has not been found in any but a few of the cases; but epileptoid seizures, associated with albuminoid syphilis, and a plentiful secretion of phosphatic albuminous urine, are not uncommon.—*The Practitioner*, October, 1878.

The Transfusion of Blood in a Case of Opium-Poisoning.—Dr. Thomas G. Morton, of Philadelphia, recently performed transfusion at the Pennsylvania Hospital, in that city, in a serious case of opium-poisoning. The patient, a man of some forty years of age, was brought into the hospital in a comatose condition. In order to relieve the system of the poison a large quantity of blood was drawn from him before transfusing the patient. Eight ounces of defibrinated blood were then thrown into the saphena vein on the right foot. The pulse rose, the respirations increased in number after the operation, and the patient began to grow steadily better, when, five hours after the fresh blood had been introduced, his heart suddenly ceased beating, and he died without a word.

Recent Acute Myelitis in an Infant; Softening of Anterior Cornua.—The patient, æt. 2½ years, was admitted into hospital December, 1877. Four weeks previously it had had a fall. Ten days afterward it grew ill, and two or three days later mother noticed paralysis of left arm and leg. Upon admission, there was complete paralysis of motion and sensation in the legs, and of motion in the arms; complete loss of reflex action in the limbs. The evacuations were involuntary. Temperature ranged from 99°–100° F. Two weeks later the child was less dull, and power was beginning to return to the arms. A few days later arm-movements were quite free; the legs were sensitive, and could be drawn up in bed. The child now began to suffer from measles, and died Jan. 24, 1878, of secondary broncho-pneumonia.

Autopsy: The gray matter of the cord everywhere thickened, with spots of red softening in the anterior horns of lumbar region. Numerous leucocytes were seen in the perivascular spaces in the lumbar region, just above the softened parts. The ganglion-cells were gone on the left side, and their places taken by leucocytes, granular bodies, and free nuclei. There were scarcely any polar cells in the posterior horns; numerous nuclei along the vessels, and scattered in groups throughout the horns. The changes in the cervical were very marked, more so than in the dorsal. The only change in the medulla and pons consisted in an increase of leucocytes. Distinct sclerosis was visible in the antero-lateral columns. The accumulation of leucocytes around vessels was seen in otherwise healthy parts. This appears to suggest that the disease at first affects the vessels only, the nerve-structures being secondarily involved.—*Dr. Turner, London Path. Soc., Feb.* 4, 1879.

Climate of Africa.—South Africa is recommended by Harry Leach, M.R.C.S. (see *The Practitioner*, Oct.), as a fine climate for certain consumptives and other invalids. Dry air and pretty even temperatures are the peculiarities of the climate.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 15, 1879.

THE NATIONAL HEALTH BUREAU.

A BILL calculated to prevent the introduction of infectious or contagious diseases into the United States, and to establish a National Board of Health, passed the House of Representatives during the last day of the session of that body. To such as have watched the progress of legislation regarding the creation of a health bureau, and have taken an impartial view of the necessity for such a department, there will be much disappointment at the result.

The bill in question was presented by Mr. McGowan, of Missouri, and after very little debate was duly passed. It provides for the establishment of a National Board of Health, to consist of seven members, to be appointed by the President, by and with the advice and consent of the Senate, not more than one of whom shall be appointed from any one State. The compensation of the members during the time when actually engaged in the performance of their duties under this act, will be ten dollars per diem each and reasonable expenses, and of one medical officer of the army, one medical officer of the navy, one medical officer of the marine hospital service, and one officer from the Department of Justice, to be detailed by the Secretaries of the several departments and the Attorney General, respectively, and the officers so detailed will receive no compensation. Said board will meet in Washington within thirty days after the passage of this act, and in Washington or elsewhere, from time to time, upon notice from the president of the board, who is to be chosen by the members thereof, or upon its own adjournments, who will frame all rules and regulations authorized or required by this act, and make or cause to be made such special examinations and investigations at any place or places within the United States or at foreign ports, as they may deem best, to aid in the execution of this act and the promotion of its objects.

The duties of the National Board of Health are simply to obtain information upon all matters affecting the public health, to advise the several departments of the government, the executives of the several States, and the Commissioners of the District of Columbia, on all questions submitted by them, or whenever, in the opinion of the board, such advice may tend to the preservation and improvement of the public health.

Section third of the bill provides, "that the board, with the assistance of the Academy of Science, shall report to Congress at its next session a full statement of its transactions, together with a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be established between State or local systems of quarantine and a national quarantine system.

"*Sec.* 4. The sum of fifty thousand dollars, or so much thereof as may be necessary, is hereby appropriated to pay the salaries and expenses of said board."

After so much time spent in legislation upon sanitary matters, and so much discussion upon the different health bills which have been presented to Congress, it is a matter of great regret that more has not been accomplished. The board, although admirably constituted and calculated for much effective work, has really nothing more than advisory power, and is calculated to act merely in the capacity of a committee of inquiry regarding a plan for a future national health organization. So far as the establishment of any system of national quarantine is concerned, nothing has been accomplished. The wisdom of such an omission is certainly very questionable, especially in view of the probability of the reappearance of yellow fever next summer.

All the investigations which have been held recently concerning the spread of yellow fever have demonstrated the necessity for quarantine. The only difference of opinion appears to be concerning the rigidity of the restrictions. The majority of advanced sanitarians are on the side of common sense, and believe that efficient quarantine is consistent with protection of the people on one hand, and that of commerce on the other. It does not appear that any further investigation on this point is necessary, at least in view of prospective emergencies. The history of the last epidemic also demonstrated that something more than local or State quarantine was necessary. While railroad stations were guarded with shot-gun patrolmen, while towns were surrounded by armed citizens, while refugees were banished to the swamps, and charity was lost in fear, the rivers were open to free traffic, and the decaying corpses of the victims of fever were transported for miles without hindrance. It was not until the disease had gained a secure foot-

hold along the Mississippi that the inhabitants on its banks took matters in their own hands for self-protection. It cannot be doubted that if some intelligent and uniform system of quarantine was enforced by a power stronger than that of the local authorities, that much needless suffering would be prevented and many valuable lives saved. The question is whether these experiences of the past year are to be repeated during the next summer; and if so, what is going to be done to stay the progress of the pestilence while the new health board is deliberating upon their next report to Congress.

The other bills, any one of which was better calculated to protect the people than the one in question, were defeated in consequence of the ultra views on State's rights entertained by many of the Southern and New York members. It has not yet been proven, however, that such rights would have been interfered with by any provisions contained in the bills aforesaid. On the contrary, it was designed in each instance that the federal government should merely aid the States in times of emergency, and not in any way interfere with their respective rights. So strong, however, was the feeling regarding this doctrine of State's rights that a clause in the original bill of Mr. McGowan, to the effect that the health board should aid in the work of State boards of health, and in that of State or municipal quarantine authorities, was stricken out, thus completely depriving the Act of its greatest, if not only means of real usefulness.

AURAL HYGIENE AND THE PUBLIC SCHOOLS.

THE eighth annual report of the New York Ear Dispensary has just been issued, and the workings of the institution are set forth in the report of the trustees. Since the establishment of this charity it has been the aim of the trustees to improve the condition of the partly deaf children found in the public schools, the officers of the dispensary having had forced on their attention from year to year the neglect shown this class.

It would appear to be a natural and simple matter for teachers to seat children with this defect sufficiently near their desks to make themselves heard; yet it is well known that, for the guidance of teachers in this matter, there are no established rules in the schools. Bitter complaints are frequently made at the dispensary, by parents, of the neglect of partly deaf scholars at examinations for promotion; those not hearing well enough to promptly catch questions fail to give correct answers, and are thus unable to secure a promotion to which they are clearly entitled.

This failure to comprehend the status of a class whose number is really greater than generally supposed, imposes increased labor on the already much-taxed teacher, and the partly deaf are thus compelled to learn under great disadvantages, as well as being a hindrance to others. The trustees recommend, as a means of solving this difficulty, in part at least, that he hearing power of each pupil be tested before he is assigned to a seat, and they suggest a very simple plan intended to aid teachers in carrying out this matter, instructions for which are printed in the end of the report. The trustees dwell with much earnestness on the imperfect hygiene of our public schools, and, indeed, if we are to credit one-half the complaints coming from many and various sources on this subject, the present system could go back and borrow considerable knowledge from the old log school-house of early days. A defective system of heating and ventilation seems to be at the bottom of this evil, and its direful influence on the youth who pass many hours daily, at an important period of their physical development, in a foul atmosphere, cannot be over-estimated, and it seems especially hard when it is considered that attendance is in part compulsory. The city has here an opportunity to establish model houses for school purposes, and they should certainly do this before enacting laws to enforce the construction of model tenement-houses by others.

The report further says: "Attacks of inflammation of the ear frequently occur from seating children too near a stove, or other source of heat, or permitting them to be exposed to a draught of cold air near a window or door. The former are rendered very sensitive to colds thereby, and an earache, with purulent discharge from the ear, frequently follows. This source of aural disease could be greatly lessened by a better system of heating and ventilation."

Believing that an early attention to throat affections is likely to lessen the frequency of aural diseases, the trustees have considered it best to re-establish the Throat Department, and, being convinced that aural surgery can be made serviceable in the same manner, they have also established a Dental Department.

The report of Samuel Sexton, M.D., the Aural Surgeon-in-Charge, states that during the year 575 patients were treated. He draws attention to the change in the nomenclature of aural diseases which has been made necessary by the requirements of modern aural pathology. Thus, "impacted" cerumen is not enumerated as a disease; in fact, the presence of cerumen in the external auditory meatus is owing to an anomaly of secretion, and its "impaction" is not an invariable incident. Affections of the tympanum are classified as nearly as possible according to their pathological significance, and *symptoms* of disease, as tinnitus aurium and the like, are not included in the list as diseases.

THE INDEX OF THE LIBRARY CATALOGUE.

THE authorization of the printing and binding of the first and second volumes of the index catalogue of the library of the Surgeon-General's Office will be a subject for congratulation with medical scholars through-

out this and other countries. A clause in the Sundry Civil Appropriation bill names twenty thousand dollars for that purpose. The volumes are promised by June, 1880. Although the succeeding volumes are not yet provided for, a proper initiation has been taken, and there will be no doubt, when the time for the publication of these arrives, the means for so doing will be forthcoming. The profession has taken a great interest in the project, and too much praise cannot be given to the legislature for its action in bringing about the result.

Reviews and Notices of Books.

THE CONSTITUENTS OF CLIMATE, with Special Reference to the Climate of Florida. By FREDERICK D. LENTE.

ANY well-directed effort to enlighten the profession on the subject of climate should be hailed with delight. Dr. Lente has laid the profession under obligations for his carefully written pamphlet. He has added much to our knowledge of the climate of Florida, and has made this knowledge practical by aiding the physician to answer the questions so often asked by the patient: "Where shall I go?" "When shall I go, and how soon will it be safe for me to leave the climate to which I go, and return home?" Dr. Lente is in a position to judge, having spent several winters in Florida, and having made the climate and its influences a special study.

At this season of the year, when both physician and patient are interested in the subject, the information is specially valuable.

Considerable space is given to the subject of the influence of climate on pulmonary diseases. Almost all physicians are agreed that phthisical patients receive the greatest benefit in that climate in which they may be most out of doors. Dr. Lente shows that Florida offers a climate which permits of the patient being out of doors even more than Europe's favorite winter homes, Mentone, Cannes, Nice, etc.

Dr. Lente also gives great encouragement to the sufferer from malaria, that the climate of Florida will benefit him. For sufferers from the early stages of Bright's disease, the so-called nervous prostrations, throat affections, certain forms of dyspepsia, and rheumatism, Florida offers a climate well adapted to benefit.

Dr. Lente points out one great error that patients from the North are apt to fall into, and that is in regard to diet and clothing. They forget in the change of climate to change the diet to suit that climate, and the result is an attack of indigestion, which aggravates their already existing diseases. Dr. Lente thinks thicker clothing should be worn in Florida than in New York for the same temperature. Any patient going to Florida or any other locality for the benefit of his health should seek the advice of some intelligent physician in the locality to which he goes, and not depend on the general advice of his physician at home.

TRANSACTIONS OF THE OHIO MEDICAL STATE SOCIETY. Thirty-Third Annual Meeting, held May, 1878. Columbus, Ohio: Cott & Hann. 1878.

AFTER the report of the "minutes" of the Society, we are brought face to face with the papers presented at this meeting. That of the retiring president, Dr. W. Philips, of Kenton, upon "The Testimony of Medical Experts," is one of much interest and value. The author holds that the State should provide a man whose special education and training renders him competent to instruct the judge and jury upon points which can only be mastered by special scientists. We heartily agree with Dr. Philips.

Prof. J. W. Hamilton, M.D., records four very interesting cases of "Maxillary and Naso-Pharyngeal Tumors," with remarks upon the operations. "Throat and Nasal Affections in their Relations to Diseases of the Ear" is an interesting and instructive paper by Dr. J. H. Buckner, of Cincinnati. Scarlatina, measles, variola, coryza, pertussis, enlargement of the tonsils, diphtheria, syphilitic sore throat, hereditary syphilis, adenoid vegetations (naso-pharyngeal), as well as more ordinary inflammatory affections of the naso-pharynx, are given as the causes of ear diseases.

Dr. C. S. Muscroft has great faith in "The Use of Sub-sulphate of Iron as a Local Remedy." "The Curette in Certain Forms of Uterine Diseases, with Cases," by Thad. A. Reamy, M.D., calls for no special mention.

Dr. R. L. Sweeney gives "A Report on Chronic Inversion of the Uterus." He employed White's repositor with success.

The remaining five papers, and an obituary report, are of no particular interest. A list of members is appended. The officers elected for the ensuing year were: *President*, B. B. Leonard, West Liberty; *Treasurer and Librarian*, T. W. Jones, Columbus; *Secretary*, J. F. Baldwin, Columbus.

PROCEEDINGS OF THE FLORIDA MEDICAL ASSOCIATION Session of 1878.

THE officers elected for the present year are: *President*, R. D. Murray, Key West; *Secretary*, J. Y. Porter, Key West; *Treasurer*, J. D. Fernandez, Jacksonville. The transactions of this association narrowed themselves to the simple presentation of two very lengthy and valuable papers upon Yellow Fever as it occurred at Jacksonville and Fernandina. The former was read by R. P. Daniel, M.D., the latter by C. W. Horsey, M.D.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA, 1878.

THIS Society held its annual meeting in the town of Weston, May 22d and 23d, 1878. At this meeting it elected the following officers for the ensuing year: *President*, Wesley H. Sharp, Volcano; *Secretary*, M. F. Hullihen, Wheeling; *Treasurer*, J. C. Hupp, Wheeling.

This volume contains, besides the "minutes" and an address by the retiring president, Dr. J. W. McSherry, nine papers. Drs. M. R. Boyd and J. H. Brownfield each report an interesting case of "Extra-Uterine Pregnancy." Portions of the fœtal skeleton were removed, in one case through the abdominal walls, in the other per rectum. "Puerperal Insanity," by A. H. Kunst, M.D., in nowise adds to our knowledge of the pathology or treatment of the affection. Dr. W. H. Sharp, "Concerning the Dressing of Wounds," gives a short but excellent review of Lister's dressings and their modifications.

Among quite a number of "Surgical Cases" reported by John Frissell, M.D., Wheeling, which are of no special interest, we find several very interesting ones of traumatic aneurisms and injuries of arteries. The other papers contained in this pamphlet are of insufficient interest to warrant mention.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA. Twenty-eighth Session, 1878. Phila.: Collins. 1878.

WE heartily welcome this last volume of the Society's Transactions, so full is it of excellent practical and instructive papers. At this annual meeting the president-elect, Prof. D. Hayes Agnew, presided. The officers for the ensuing year were elected as follows: *President*, J. L. Stewart, Erie County; *Permanent Secretary*, W. B. Atkinson, Philadelphia Co.; *Recording Secretary*, J. N. Kerlin, Delaware Co.; *Treasurer*, Benj. Lee, Philadelphia Co.

Prof. D. Hayes Agnew, M.D., delivered an address upon "Errors in Diagnosis," which is of great interest, and goes to show that not even the best of us are infallible, as the series of blunders which he relates as having been made by Dupuytren, Pirogoff, Diffenbach, and many others of eminence, prove. Prof. Wm. Goodell, M.D., delivered an address in Obstetrics, on "Lacerations of the Cervix Uteri." He refers in the outset to the fact that Emmet "has written pretty much all that can be said about it." Dr. Goodell, however, gives an excellent account of the etiology, pathology, sequelæ, and treatment of the affection under consideration, and records two cases.

"The Rational Treatment of Stricture of the Urethra," by Prof. S. W. Gross, M.D., further exemplifies the views reported in THE MEDICAL RECORD for June 15th and October 5th, 1878. The author accepts the treatment so ably advocated by Prof. Otis, namely, the restoration of the canal to its original calibre, as determined by the urethrometer, whether by urethrotomy or divulsion. Dr. Gross gives the preference to internal urethrotomy.

Dr. J. B. Murdoch, of Pittsburgh, reports a rare and exceedingly interesting "Case of Dislocation of the Hip, complicated with Fracture of the Femur." Much space is given to points in diagnosis, and we can congratulate those who have the opportunity of reading this valuable paper. "Psoas Abscess simulating Nervous Affections," by Charles K. Mills, M.D., and "Clinical Study of Catarrhal Inflammation of the Bile-Ducts, with Remarks on the Use of Nitrate of Silver in its Treatment," by William Pepper, A.M., M.D., are two excellent papers. Want of space forbids further specification of the many remaining papers read before the State Society's meeting and at the meetings of the various county medical societies. Some of these papers are so valuable we regret being obliged to pass them by.

LECTURE ON BRIGHT'S DISEASE OF THE KIDNEYS, delivered at the School of Medicine of Paris, by J. M. CHARCOT, Professor in the Faculty of Medicine, Paris, Physician to the Salpêtrière, etc. Translated, with the permission of the author, by Henry B. Millard, M.D., A.M. New York: William Wood & Co. 1878.

THERE has long been felt the want of a brief work on the pathology of Bright's disease of the kidneys, one that should sift out all that is theoretical, and present to the busy practitioner and student all that is known of the affections of this organ coming under the general name of Bright's disease. These lectures of Charcot supply such a want. The work consists of seven lectures, two on the normal anatomy of the kidney and the physiology of urinary secretions; one on tubular infarctus, urinary casts, and a summary view of Bright's disease. Then follow two lectures on interstitial nephritis, one on parenchymatous nephritis, and one on the amyloid kidney.

He considers that all forms of disease of the kidney coming under the head of Bright's disease, not only from an anatomo-pathological point of view, but as regards etiology and symptomatology, belong to one of three varieties, namely: interstitial or parenchymatous nephritis, or the amyloid kidney.

Under each head he gives an account of the etiology, symptoms, anatomical characteristics, and histology of the variety under consideration. He considers "that scarlatinous nephritis is confounded by many authors with parenchymatous nephritis, and that the point of departure of permanent lesions attributable to the large white kidney is founded on no decisive observation, but that histological examinations concur in showing the renal alteration to be a form of acute or subacute variety of interstitial nephritis." He does not touch on the question of treatment. The volume is illustrated with sixteen woodcuts and two chromo-lithographs. The thanks of the profession are due to the translator, Dr. Millard, for the way in which he has performed his portion of the work, and to the publishers for the clear type and elegant appearance of the book. It should be read by every one who desires to be informed of the pathology of Bright's disease.

A HAND-BOOK OF NURSING, FOR FAMILY AND GENERAL USES. Published under the direction of the Connecticut Training-School for Nurses, State Hospital, New Haven, Connecticut. Philadelphia: J. B. Lippincott & Co. 1879.

THE number of books on nursing that have been issued within the past few years show that the subject is at last receiving the attention it deserves. This book is one of the best that we have seen; it is really what it claims to be: "a hand-book of nursing," medical, surgical, and monthly. It is clear and practical in its instruction, and is intended not only for the professional nurse, but for every one who may be called upon to take care of the sick. It should find a place in every family. The chapter on "Family Hygiene" is particularly to be commended, short as it is. The volume is a credit to the committee under whose direction it has been prepared and published.

PRACTICAL GYNÆCOLOGY. A Hand-book for Students and Practitioners. With illustrations. By HEYWOOD SMITH, M.A., M.D., Oxon., etc. Demy 8vo. Philadelphia: Lindsay & Blakiston. 1878.

THIS is another volume of the "Student's Guide Series." While we admit it may be valuable for the "last year's" student to refresh his knowledge, any "busy practitioner" who feels the need of such a superficial work as this for consultation must necessarily have so limited a knowledge of gynæcology as to be unfit to attempt its practice. We are not a little surprised to be made aware of Dr. S.'s complacent estimation of his work by reading, in the preface: "If I have rendered the subject of Gynæcology more easily understood, and placed in the hands of general practitioners a means of helping them to a more accurate diagnosis [!!] and treatment of diseases that form an increasingly important branch of their practice, my labor will be amply repaid."

ELEMENTARY AND QUANTITATIVE ANALYSIS. By ALEXANDER CLASSEN, Professor in the Royal Polytechnic School, Aix-la-Chapelle. Translated, with Notes and Additions, by EDGAR F. SMITH, Ph.D., Assistant Prof. of Chemistry in the Towne Scientific School, University of Pennsylvania. Royal 12mo. 324 pages, with illustrations. Philadelphia: H. C. Lea. 1878.

THIS handsome little volume should receive a hearty welcome from American students of chemistry. The fact that it has been adopted as a text-book in Germany, and by many of the prominent universities and polytechnic schools in France, Russia, and Poland, where translations have appeared, should be a suffi-

cient guarantee of its worth. The student will find herein detailed the necessary practical methods—those only which have stood the test of experience, for *quantitative* analysis of minerals and their compounds. It deals with *inorganic* substances only. We can fully recommend it as an eminently useful and practical book, indispensable in the laboratory.

MODERN MEDICAL THERAPEUTICS: A Compendium of Recent Formulæ and Specific Therapeutical Directions, etc. By GEO. H. NAPHEYS, A.M., M.D. Sixth edition, enlarged and revised. Philadelphia: D. G. Brinton, 115 S. Seventh St. 1879.

WE are hardly surprised to find that the sixth edition of this work is before us within a period of time which is so short. The editor has given the work a thorough revision, expanded it to the necessity of an extra volume on diseases of women (to appear shortly), and has added in the present volume the subjects of Typhus Fever, Yellow Fever, Mercurialism, Plumbism, and a number of Diseases of Children. This work evidently supplies "a want long felt."

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 12, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

VESICAL CALCULUS.

DR. WYETH presented a stone originally two inches in diameter, which he had removed from a gentleman about fifty years of age. Lithotrity was considered inexpedient on account of the large size of the stone and its peculiar position (being lodged in a sac or pouch behind the pubis). The median operation was first made and the stone was crushed with the forceps. In order to remove the fragments, some of which were very large, the primary incision was enlarged laterally.

The patient died from shock and exhaustion due to vomiting, about ten days after the operation. The pieces which were saved weighed 640 grains.

COMPOUND FRACTURE OF THE FEMUR—GANGRENE—HOT-WATER TREATMENT.

DR. FOREST presented a portion of a lower extremity, accompanied by the following history: A boy, four years of age, on December 3, 1878, fell from a third story window, an unbroken fall of thirty feet, and received a compound fracture of the femur. A surgeon was called who applied a plaster-of-Paris dressing. Soon after the child became uneasy, complained of great pain, and the toes became cold, but the surgeon regarded the symptoms as unimportant, and allowed the dressing to remain.

The patient was not able to either eat or sleep, and finally, after the lapse of several days, the splint was removed, when the foot was found gangrenous. The gangrene extended, high fever developed, the child passed into a low cachectic condition, and apparently there was no chance of his recovery. Several surgeons were called, but no encouragement was given with reference to saving the life of the patient. One of the surgeons recommended, as the only hope, that the limb be amputated at the point of fracture. Dr. Forest was called December 15th, and then found that gangrene had extended up the leg, and the appearance of the limb was such as indicated its spread above the knee. He determined to make an effort to save the life of the patient by means of the hot water treatment, and therefore had a tin trough made in which the limb could be placed. It was then flowed with water at 112° F., and covered with cotton about three inches in thickness. The temperature of the water was steadily maintained at 112° F. From that time the gangrene ceased to extend. The pain passed away quickly, the child began to sleep, his appetite returned, and there was a rapid and marked improvement in his general condition. On the second day after the hot water was first applied, a line of demarcation began to form at the junction of the middle, with the upper third of the leg. About three weeks later the separation was complete, except at the posterior part of the leg, where a narrow strip of tissue still retained its vitality. In the meantime the wound in the thigh had healed, and the fracture had united. The general condition of the patient being good, Dr. Forest made an amputation, gave the lad a good stump, and preserved the integrity of the knee-joint.

CONTAGIOUS PLEURO-PNEUMONIA IN CATTLE.

DR. LIAUTARD presented a lung removed from an animal that had died of contagious pleuro-pneumonia. At the request of the Board of Health, he had examined several cattle, had recognized the presence of the disease, and the lung presented was one obtained at a post-mortem upon one of the animals examined. The specimen exhibited the gross appearance of acute lobar pneumonia in which the development of interstitial tissue was a prominent feature. In places the lung was evidently in the stage of gray hepatization, and at several points suppuration had been established. A portion of the pleura removed from the region of the ninth rib was also presented, and showed firm thickening to the extent of nearly half an inch. Dr. Liautard regarded the disease as one produced by blood poisoning. After it had been of some standing, the lungs became of enormous size, weighing as much as forty or fifty pounds. The general period of incubation was about two months, and the infectious character of the disease varied, not only in different localities, but in different degrees in the same locality. That is to say, sometimes cows in the same stable with animals affected would escape, even the animal next to the sick one would be free from the disease, while one, two, or three removed would be attacked. There were no laws known which governed the matter of contagion. It was considered obligatory upon the part of owners of cattle to destroy the animals affected, inasmuch as there was no cure for the disease, and the animals were rendered unfit for food. He stated that in a large herd of cattle upon Long Island, there was scarcely a single animal uninfected. Inoculation had been tried, and without satisfactory results, in the way of preventing the disease.

DR. W. M. CARPENTER referred to a post mortem which he made upon a calf that died of sporadic pleuro-pneumonia, and apparently without symptoms. The animal took his evening meal as usual, and was found dead in the yard on the following morning. None of the other animals were affected. There was a moderate amount of pneumonia and very extensive pleurisy, the exudation being soft and nearly half an inch in thickness.

CASE OF CHRONIC PACHYMENINGITIS HEMORRHAGICA INTERNA—EARLY STAGE—SMALL KIDNEYS AND HYPERTROPHIED LEFT VENTRICLE, WITH FATTY DEGENERATION OF HEART, ETC.

Dr. Janeway presented this specimen illustrative of chronic pachymeningitis hemorrhagica, not that the affection was rare, but because he did not recall a case of the kind being exhibited to the Society. The clinical history was interesting with reference to the symptomatology of Bright's disease.

The patient was a male, fifty years of age, admitted to Bellevue Hospital on the 9th of November, 1878. There was nothing of interest about his family history. He had drunk wine and spirits regularly all his life, but rarely to excess. He had had an attack of what was called rheumatic gout in his big-toe-joint and knee some three years previous. For some four or five years he stated that he had suffered from dyspepsia, occasional œdema of the legs and feet and a puffy look about his face. He had had no headache, but had suffered somewhat from dimness of vision for a year or so. He had never suffered from convulsions, nor had he noticed anything special about his urine. He entered the hospital with pneumonia of the middle lobe of the right lung, which soon disappeared under treatment.

He showed a slight œdema of the lower limbs, and his face had a peculiar pale look. The heart showed hypertrophy of the left ventricle and fatty degeneration of its walls, at least that diagnosis was made, because, notwithstanding the percussion and palpation evidences of hypertrophy, the first sound and impulse of the heart were markedly feeble. The urine passed each day varied from fifty to seventy ounces; pale, strongly acid; specific gravity 1010, as a general rule; occasionally a trace of albumen present. Repeated microscopic examinations, twenty to thirty, by Drs. Griswold and Williams, of his house-staff, failed to show casts, and they were capable of making these examinations. The patient was considerably emaciated and weak. He was unsteady, stammering, and hesitating in his conversation, easily losing control over himself. His memory was defective, and he would do things indicating that his mental activity and sense of decency were impaired, such as defecating or urinating on the floor, expectorating similarly, and this notwithstanding efforts to restrain him.

On the 29th of November he had a convulsion, epileptoid in character, though none other occurred subsequently. The urine passed on the day of convulsion had a specific gravity of 1011, and a slight trace of albumen, but showed no casts.

On the 10th of January he was discharged, with his general health considerably improved, but his mental condition remaining in much the same state as described above.

On the 27th of January he returned to the hospital in a dying condition, living only four hours after admission.

The patient had attracted his attention during his term of service—November and December—owing to absence of albumen to any extent, and of casts completely; still, from the character of the urine, its low specific gravity, and its somewhat increased quantity, together with the enlargement of the heart and the history, he was led to the diagnosis of small kidney. The heart he was also led to believe, from the evidence above related, was the seat of fatty degenerative processes. With reference to the mental state he thought that it was possible that the retention of substances, which should have been removed by the urine, might account, as it sometimes did, for the phenomena.

The post-mortem examination showed the kidneys in a state of chronic interstitial inflammation, with a small amount of urate-infarction in the pyramidal tubes.

The heart showed marked left-ventricle hypertrophy, and fatty degeneration of the muscular fibres of both ventricles, and recent purulent pericarditis.

The right pleural sac contained about a quart of serum, and the right lung showed the middle lobe in a state of recent red hepatization. The lower lobe of left lung was the seat of red hepatization.

The great toe, metatarso-phalangeal joint, had its cartilage encrusted with urates. The knee-joint, however, showed no urate infiltration; but those conditions of the cartilage of the patella and condyles of the femur, which belong to rheumatoid arthritis; erosion, fibrillary state, proliferation of cells, and their fatty degeneration.

The brain illustrates the lesion above-mentioned. The inner surface of the dura mater on the right side was covered by a thin membrane of a mottled reddish to reddish-yellow hue; whilst generally more adherent to dura, it in some places presented portions detached from it, but adherent to pia. The attachment to dura was not firm. It existed in the greatest thickness over convexity of brain, but spread to the base. Microscopically it showed globular and granular orange-colored hematoidine connective tissue and blood-vessels, these latter being large capillaries.

On the opposite side, over the convexity, a very thin membrane was present on the inner surface of dura, of a more punctate pigment character. It, as the other, showed pigment and capillaries.

The appearances characteristic of the disease could be readily appreciated in the specimen, as he had turned the dura mater over, so as to show the new membrane partially detached from the dura on the edge of section.

The brain showed no lesion.

He also deemed this specimen of interest as showing a lesion in a case where mental impairment existed in chronic Bright's disease. The fact of urine of this nature in this case, and hypertrophy of the left ventricle, establishing the diagnosis of small kidney, was no new thing; but he had known it so often forgotten, that he thought it well to lay a little stress on it.

Dr. Van Giesen asked if there was any sediment in the urine?

Dr. Janeway replied in the negative, and in this connection referred to the usual causes of rapid decomposition of urine by the latter being contained in old urinals or bottles containing sediment. He always made it a rule to have entirely fresh bottles for purposes of urinary examination, and had had no reason to be dissatisfied with the results.

Dr. W. M. Carpenter thought it generally accepted that the quantity of urine and its specific gravity were more important symptoms in the diagnosis of chronic Bright's disease than the mere presence or absence of albumen and casts. He also referred to a case reported at the last meeting of the State Medical Society, by Dr. W. S. Ely, of Rochester, in which for twenty-two successive days neither casts nor albumen were found in the urine, yet the quantity was large, and had a low specific gravity, and at post-mortem a contracted kidney was found.

Dr. Briddon stated, that as a rule, he had not found casts and albumen in the urine of patients who had gouty kidney, and that urine of low specific

gravity was much more suspicious evidence of contracted kidney than any other symptom.

MYXO-SARCOMA OF ORBIT—RAPID GROWTH.

DR. C. S. BULL presented a specimen of myxo-sarcoma of the orbit, accompanied by the following history.

Patient was a boy, æt. 8. Good family history—good previous history up to Dec. 22d. On that date he slipped, and in falling struck against the curved handle of a door-latch, and received a slight scratch of the skin over the malar protuberance, just below the orbital margin. Nothing was noticed by the boy or his parents until two days later, when the lower eyelid began rapidly to swell. He entered the Eye Infirmary on December 26, 1878, and came under the care of Dr. Loring. At that date the eyelids were almost entirely closed, owing to the great swelling of the lower lid. On pulling upward the upper lid, the eyeball was seen displaced upward and inward against the corresponding orbital wall, and almost immovable. There was no injection of the ocular or palpebral conjunctiva, and the functions of the eye were normal. There was no swelling of the upper lid, and no conjunctival secretion of any kind. The swelling of the lower lid was elastic, as if from a fluid cyst, was not painful, and the swelling could be made out to extend into the orbital cavity. The child was etherized, and an incision made parallel to the orbital margin, and about half an inch below the margin of the lower lid, about three quarters of an inch long, and the knife introduced into the orbit about one and a quarter inch, keeping near the floor of the orbit. There was not much hemorrhage, and no pus was found. The swelling of the lid increased, and the incision was repeated three days later through the original opening, which had partially healed; this met with the same negative result. On the following day the wound began to gape, and a red, bleeding, fungoid mass began to protrude. The protrusion rapidly increased, the upper lid began to swell and become red, and the child began to run down in health. There was no change in the eye. Vision was good to the last, and the ophthalmoscope showed a normal optic disc. The hemorrhage was considerable all the time from the growth, and it was decided to operate. The operation was done January 13, 1879. It was found impossible to remove the growth, leaving the eye in place, so enucleation of the latter was the first step in the operation. The optic nerve was found apparently intact, and microscopic sections showed the nerve to be normal. An incision was then made through the skin of the cheek from the external angle of the lids, downward and inward in a curved line across the malar bone, through healthy tissue, and then upward to a point near the lower lachrymal puncture, thus cutting away about four-fifths of the lower lid. The main portion of the orbital growth was then removed entire with the part that protruded, with great ease. The orbit was cleaned thoroughly by means of scoop and scissors, the entire contents being removed down to the periosteum. The whole orbital tissue was found infiltrated with the growth, which seemed to be adherent to the periosteum mainly at one point, near the outer and lower wall of the orbit. Since the operation, the child has done well. The orbit is granulating from the bottom, and eventually the margin of the upper lid will be brought in contact with the raw surface of the incision below and united by sutures.

The growth proved to be a myxo-sarcoma and very vascular. The extreme rapidity of its growth and the slight exciting cause are the main points of interest in the case. Another interesting point is the condition of the optic nerve. Though the eyeball was greatly displaced, and the optic nerve put strongly on the stretch, and though a great degree of pressure must of necessity have been exerted upon the optic nerve in the orbit, yet the optic disc never showed any departure from a state of health, and sections of the nerve posterior to the eyeball showed it to be normal.

DR. JANEWAY stated that he had seen myxo-sarcomatous tumors disappear under the use of Fowler's solution given in five-drop doses, t. i. d., for three months. At the same time static electricity was employed. Such results had been obtained in a girl who had ten such tumors scattered over her body. He further facetiously referred to the fact that some tumors, of the same variety, which existed in the brain, could not be reached.

DR. BRIDDON referred to the rapidity with which myxo-sarcomatous tumors returned, and illustrated the fact by a case from which a tumor was removed, and reappeared in the granulations.

VESICAL CALCULI—BIGELOW'S METHOD.

DR. KEYES exhibited four vesical calculi, which he showed not so much for the value of the specimens, or for the peculiarities of the cases, as to put them upon record as the 10th, 11th, 12th, and 13th cases in which he had operated by Bigelow's method. He also took occasion to make a few remarks regarding certain manipulations which he had found to be serviceable.

The first case was that of an old man who had symptoms of stone for two or three years. He was operated upon December 10, 1878. The stone weighed two drachms, and the operation was completed in forty-five minutes. He came to town yesterday, and was well.

The second case was operated upon January 15, 1879. The stone was composed mostly of urates, weighed six drachms, and was removed in an hour and two minutes. On account of a clogging in the water-bottle the operation and evacuation was somewhat delayed. At the end of one week the patient was out walking, and in two weeks left town.

The third case was operated upon January 28, 1879. The stone weighed six drachms, and was composed mainly of urates. The operation occupied thirty-five minutes.

The fourth case was operated upon that afternoon. The patient was a gentleman from Newark, N. J., whom he saw, with Dr. Van Buren, for the first time in January, 1878, and at that time found he had stone in the bladder. The patient afterward came in contact with an irregular practitioner, who promised to dissolve the stone. February 9, 1879, Dr. Wilmarth, of Orange, asked Dr. Keyes to operate upon the patient. It was difficult to make the latter believe that the stone still existed in his bladder. It was easily detected, but was found to have increased but little in size since the last examination. The operation for its removal occupied thirty minutes.

Dr. Keyes stated that he had now performed thirteen operations by Bigelow's method, and it seemed to him that each additional operation, each increase of experience in its performance, was an argument in favor of the method. He had not had a fatal case, and believed that Bigelow's method would be the one which would supersede all others for the removal of vesical calculi. In conclusion he called attention to the fact that difficulty was sometimes experienced in removing air from the bladder when it had been accidentally introduced from the wash-bottle. He had

accidentally discovered that by turning the bottle upside down the water rushed in, displaced the air at once, and the latter appeared at the bottom (now top) of the bottle above the water. The bottle then had to be refilled before washing was recommenced.

One advantage to be derived from the use of Bigelow's admirable washing-bottle was stated to be the facility with which the existence of small fragments of stone in the bladder could be detected during the washing by combining auscultation with the washing. The sharp click of the little fragments against the catheter as the water rushed in and out was very distinct. Dr. Keyes had used this method in place of ordinary sounding where a very small stone was suspected. He did not believe the necessity for using very large tubes existed. He had never used any tube larger than 30 French, the average being 27 French, 18 American scale. In over one-fourth of the cases there was no disturbance whatever following the operation, not even a chill. The average duration was three-fourths of an hour. Some patients had been subjected to it who would have died had they been operated upon by the usual methods.

The Society then went into Executive Session.

NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, January 23, 1879.

DR. SALVATORE CARO, CHAIRMAN.

SUDDEN DEVELOPMENT OF APHASIA.

DR. CARO gave the history of a case of aphasia as follows. A lady, thirty-two years of age, married, and the mother of eight children; of a nervous temperament, and usually strong and healthy. Her husband, before marriage, contracted syphilis, underwent treatment, and was declared cured by the physician who attended him. He then married. After marriage there was a renewal of the disease, and it was communicated to his wife. Both were then treated, and both were declared cured. Both had a primary sore and roseola. There were no further constitutional manifestations of the disease. In the month of August last the wife was suddenly seized with aphasia. A physician was called, several remedies were employed, but the woman was not relieved.

Dr. Caro saw the patient in consultation, and to him the husband confessed that he had syphilis many years ago, and that he had communicated it to his wife. It was immediately suspected that syphilis was the cause of the aphasia, and treatment by the use of iodide of potassium was at once commenced. Improvement began at once, and apparently complete cure was effected within a few days. The treatment was continued for a short time, but the patient, becoming tired of it, ceased it altogether. In the month of December a second attack of aphasia occurred. The iodide of potassium was renewed, the aphasia quickly disappeared, but an eruption at once appeared upon the legs. It was thought to be due to the iodide of potassium, and the remedy was discontinued. The protoiodide of mercury was substituted, and the eruption disappeared.

INTERESTING FEATURE.

An interesting feature in the case, as well as in two others, was the following:

The lady was a Canadian by birth and spoke French fluently. But her dislike for speaking French was so great that she had scarcely used it for many years. When she had her attacks of aphasia, however, the *only words* which she could speak were *French*, and during the first two or three days of improvement she could use no language except the French. After that she dropped the French language entirely and employed the English, as previous to the occurrence of the attacks.

Dr. Caro had noted the same feature in an Italian patient, a man, forty-nine years of age. There was a syphilitic history early in life. The man had had repeated attacks of temporary and almost complete aphasia. The few words to which he could give utterance during the attacks were Italian, although for many years he had so neglected speaking his native language that he had almost forgotten it. It was with him also as with the French lady; in the early days of improvement, after the occurrence of an attack, he employed his native language exclusively.

The aphasia in the last case also yielded rapidly to iodide of potassium. In neither case was there any evidence of cardiac disease.

OVUM WITH MEMBRANES COMPLETE.

DR. BURRALL exhibited an ovum with its membranes complete. The woman had had several miscarriages. She ceased to menstruate on the 13th of September. She did not suppose that she was pregnant. In October she experienced severe pain, which made her suppose that the menses were returning, but nothing appeared.

On the 27th of December she received a slight strain while moving a barrel of ashes. That was followed by slight pain in the back and sanguinolent discharge, alternating with leucorrhœa, which continued until the 13th of January, when she had a chill apparently nervous in character. There were occasional pains in the back, and an anodyne was prescribed. The patient passed a restless night, and towards morning a mass was discharged from the vagina which proved to be an ovum with its membranes complete. The ovum was about three-fourths of an inch in length.

The Section then proceeded to the election of officers.

Dr. Salvatore Caro was elected Chairman, and Dr. Henry E. Crampton, Secretary.

Correspondence.

THE INDEX CATALOGUE OF THE NATIONAL MEDICAL LIBRARY—THE NEW HEALTH BILL.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The session of Congress just closed has been of great interest to the medical profession of the country, and a brief statement of the action taken upon some medical questions will no doubt interest many of your readers.

The printing and binding of the first and second volumes of the index catalogue of the library of the Surgeon-General's office has been authorized by a clause in the Sundry Civil Appropriation Bill, which appropriates twenty thousand dollars for that purpose. As the MS. for this work is ready, it will be sent to press without delay. As great care is necessary in proof-reading to secure the accuracy which is essential in a work of this kind, the printing can-

not be hurried, but it is hoped that the two volumes, each of about 1,000 pages royal octavo, will be completed by June, 1880. Those who are interested in this matter should remember that the succeeding volumes have yet to be provided for by Congress.

The bill providing for the census of 1880 also passed. This bill is of interest to physicians, since it provides for the securing statistics of disease as well as of mortality, and we may fairly hope, under its provisions, to obtain some very valuable data as to the relations of locality, occupation, age, race, and sex to the more important diseases.

Congress also passed a Public Health Bill, which is the bill introduced by Mr. McGowan, of Michigan, with some modifications.

The history of this bill would form a very curious chapter in the history of public hygiene in this country, but it is too long to be given here. Suffice it to say that the bill was supported and approved by the American Public Health Association, and by the great majority of the leading sanitarians of the country. It was opposed by the Marine Hospital Service, and by many of the advocates of a strong, uniform, national system of quarantine. The essential feature of the bill, as urged by its friends, was that the United States ought to encourage and aid State and local boards as much as possible, instead of trying to override and control them. To this end it was proposed that the United States should subsidize properly constructed boards by paying half their expenses, precisely on the principle adopted in the new census law, which provides that when a State, in 1885, shall take a census on the plan of the United States census, the United States will pay half the expenses.

It will be seen that this feature was stricken from the bill, but it is to be hoped that it will be restored in the coming extra session of Congress.

Very truly yours,

JOHN S. BILLINGS, *Surgeon U.S.A.*

WASHINGTON, D. C., March 6, 1879.

New Instruments.

AN IMPROVED APPLIANCE FOR FRACTURED CLAVICLE.

By C. L. PEIRCE, M.D.,

SAN FRANCISCO, CAL.

IN his work on "Surgical Operations and Appliances," concerning the treatment of fractured clavicle, Dr. Wales uses the following language:

"The indications of treatment are plain; the shoulder must be carried upward, outward, and backward. The difficulties encountered in the treatment are not that these indications cannot be fulfilled temporarily with suitable bandages, but that sooner or later the apparatus, of any description whatever, will become deranged or loosened while the patient is permitted to move around, as he ordinarily is during the treatment, and thus the object in view—immobility of the clavicle—will almost certainly be defeated."

Twelve years ago, while in general practice in Massachusetts, I realized the painful truthfulness of this statement. I was then called upon to treat the fractured clavicle of a fat little girl two and one-half years old. I consulted the best works on surgery, but with none of the different appliances could the little arm be permanently kept in a proper position. At last, almost in despair of success, I devised the appliance represented by the accompanying woodcuts. To my great delight, the most perfect results followed—the clavicle uniting without deformity. Since then this device has been frequently tested, not only in my own practice, but among professional friends, and always with the same happy results.

FIG. 1.

The appliance, as constructed for me by J. H. A. Folkers & Bro., of this city, consists of two rings, b, b^1, made of rubber tubing, padded and covered with velvet so as to be easily worn. To one of these rings is firmly stitched two strips of *heavy* elastic ribbon (varying in length and distance apart, according to the size of the rings), and to the other ring is fastened two sets of buckles. A segment of this ring is finished so as to form an *axillary* wedge (Fig. 2). A strong linen sling with straps and buckles to make it fast, is made to fit the arm, with an opening at the elbow so that there may be no pressure on the olecranon. Strong strips of tape are sewed to the corners of the sling nearest the hand, while on the back part of the sling, just above the opening for the olecranon, a strong linen strap, an inch and a half wide, is stitched. A broader band to encircle the body completes the device, making only four separate pieces in all.

I usually apply the apparatus over the underclothing. The rings being applied (the wedge ring on the fractured side), the shoulders are drawn back as far as they can be comfortably, and made secure by the elastics. Then the sling is buckled on, the arm being allowed to hang vertically beside the chest, as suggested by Dr. Hamilton, the suspensory tapes being fastened to the ring on the sound side, at the right length to allow this. The posterior strap is next passed obliquely across the back and buckled to the ring on the sound shoulder; the elbow meanwhile

should be pressed upward, and this strap fastened so as to take all the weight from the affected shoulder.

Lastly, the broad band is passed behind the oblique strap, through the loops on the arm-sling, around the body, and buckled so as to hold the elbow securely against the side of the chest.

Fig. 2.

This appliance is so easily adjusted that it requires not over five minutes to properly place it upon the patient, is easily worn, causing no chafing. It accomplishes every desired indication at the time of its application, and it cannot possibly "become deranged or loosened," although the patient has free use of the sound arm.

By the use of the strong elastic bands a constant tension is maintained; therefore the relative position of the parts, when once adjusted, cannot be changed. If unelastic bands were used here they would soon stretch, and the adjustment of the fractured parts would be disturbed.

In using my device the surgeon should be sure that the ring for the fractured side should fit closely around the shoulder; for if this ring is too large it will ride over on the fractured clavicle and defeat the desired object.

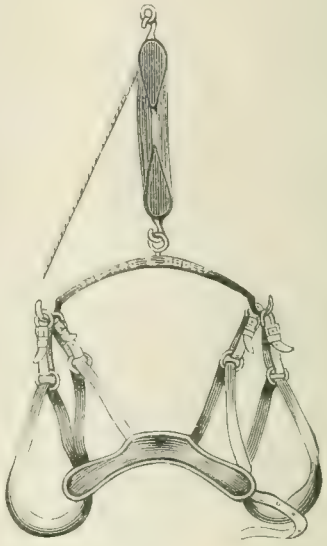
If this suggestion is carefully observed and the apparatus otherwise properly applied, it will be worn with comfort day and night, underneath the outer clothing, giving free use to the sound arm, and confidence to the surgeon that perfect results will follow. Figs. 1 and 2 represent a front and back view of the device as applied.

San Francisco, Cal.

An Antidote in Carbolic Acid Poisoning is dilute sulphuric acid, which combines with the phenol and forms the non-poisonous phenyl-sulphuric acid. Dr. Senftleben has used it with success. He gave 10 drops, diluted, every hour.

A SUSPENDING APPARATUS FOR POTT'S DISEASE OF THE SPINE.

In the catalogue of H. Windler, of Berlin, published in 1870, there is a plate of an apparatus for extension from the neck and arms in lateral or angular curvature of the spine. Shepard & Dudley have imported one of these instruments, and, as the question of treating deformities by extension is receiving so much attention from the profession at present, a description of an apparatus with the plate may be of



interest to the medical public. In a note from Mr. Windler, dated Oct 12, 1878, he states that the apparatus was originated by Glissen, is mentioned in 1846 in a book written and published by Dr. H. E. Fritz, but without the sling for the arm. Who first added two arm-slings he does not know, but it was in his catalogue in 1870. The accompanying plate is a faithful representation of the sling. It has two compound pulleys, straps, buckles, to raise or lower either the neck-band or the arm-slings.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 2 to March 8, 1879.

King, William S., Lieut.-Col. and Surgeon. His sick leave extended eight months, with permission to go beyond sea. S. O. 53, A. G. O., March 6, 1879.

Hygiene versus Long Trains.—The municipal authorities of Prague have, at the request of the Board of Health, interdicted the wearing of dresses with trains in the public streets, on the ground that the dust raised by those appendages is injurious to health. In Algeria the clouds of dust raised by the incessant sweeping of the long skirts of the ladies, produce on the legs, when bathed with perspiration, an irritating pruritis and eruptions which are only partially relieved by baths and a scrupulous attention to cleanliness.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 8, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
Mar. 1, 1879..	0	3	173	1	12	32	0	0
Mar. 8, 1879..	0	4	198	2	1	52	0	0

MEDICAL GRADUATES OF CHICAGO. At the recent commencement of Rush College 122 diplomas were bestowed; one was honorary degree. The Chicago College graduated thirty-eight on the 4th inst.; two received the honorary degree of "M.D.," and one that of "Ph.D." The Women's Hospital College had a graduating class of five.

The Rush alumni banqueted at the Tremont House, and reorganized their association. The Chicago alumni banqueted at the Palmer.

One of the graduates of the Women's Hospital College—Miss Moegler—has been successful in winning, by competitive examination, a place as Interne to the County Insane Asylum. This is the first appointment of a lady to a hospital position in Chicago, except where men have been excluded from competition.

THE POPULATION OF THE GLOBE.—The last number of Petermann's *Communications Géographiques* contains fresh estimates of the population of the globe. According to recent researches, the population now numbers about 1,439,137,980 souls. This figure, however, is only approximate to the truth, as in the cases of many countries, particularly China, Africa, Australia, and Polynesia, exact data are wanting. Europe has 312,398,480 inhabitants; Asia, 831,000,000; Africa, 205,210,500; Australia and Polynesia, 4,413,000; America, 86,116,000. It is an average of 500 inhabitants for every square mile of the surface of the globe.

After having estimated the number of men existing on the earth, the German statisticians next turned their attention to the equine race. The number of horses at present existing on the globe, exclusive of China and Japan, seems to be about 58,000,000. Of this number the contingent of Russia is about 21,750,000; that of the United States, 9,504,000; of the Argentine Republic, 4,000,000; Germany, 3,352,000; France, nearly 3,000,000; Canada, 2,264,000; Great Britain, 2,225,000; Hungary, 2,179,000; Austria, 1,367,000; Turkey, 1,100,000, etc.

ACTION OF THE BLATTA ORIENTALIS.—The blatta orientalis, or common cockroach, is a popular remedy in Russia. The researches of Bogomolow have given the following results from its employment: The quantity of urine is increased; the quantity of albumen diminished; œdema and ascites disappear; the weight of the body diminishes; the perspiration is generally increased; digestion is not impaired; the kidneys are not irritated. The dose employed was four and a half grains of the powder obtained from the dried insect. These results were confirmed by Unterberger, who employed the drug with great success in scarlatinal albuminuria. M. Koehler has also employed it in thirteen cases of dropsy of various origin. His results were sufficiently conclusive, and show that the blatta orientalis really possesses remarkable diuretic powers. Its most interesting action, however, is its power to cause a rapid disappearance of the albumen from the urine. Hence it is not a simple diuretic, and its true field of action should be sought in Bright's disease. It seems to be entirely innocuous. *Jour. de Méd. de Bordeaux.*

TREATMENT OF ULCERS OF THE CERVIX UTERI BY CREASOTIC GLYCERINE.—Dr. Mendelssohn, of Bildah, Algeria, speaks very highly of creasotic glycerine in the treatment of non-specific ulceration of the cervix. His formula is: pure creasote, 2 grammes (℥ss.); glycerine, 50 grammes (℥ xiijss.); alcohol, 25 grammes (℥ vj.). He applies it every day or two to the ulcerated surface by means of a soft brush. He has treated with this application 28 cases of simple ulcer or erosion, 7 cases of fungous and granular ulcer, and 2 of chancroid ulcers of the first class; 26 were cured and 2 only improved. The average duration of treatment was 12 days, though in two of the cases the applications were continued for 30 days. In 8 of these 28 cases the ulceration was due to metritis with abundant leucorrheal discharge, and these were the cases which proved most rebellious to treatment. Of the second class, six cases were cured and one improved, the average duration of treatment being 17 days. In the two cases of chancroid ulcer the treatment was continued respectively for 30 and 40 days, but the results were entirely negative.—*Gazette Obstétricale.*

AMERICAN VETERINARY COLLEGE.—The fourth annual commencement of the American Veterinary College was held March the 5th, at Lyric Hall, before a large audience. The degree of Doctor of Veterinary Surgery was conferred on the following graduates: O. D. Carman, of New York; Charles C. Cattanach, of New York; Thomas J. Herr, of New York; William H. Kleindoff, of Pennsylvania; W. B. E. Miller, of New Jersey; R. A. McLean, of New York; T. B. Rogers, of New Jersey; John J. Smith, of Pennsylvania; Th. Outerbridge, of West Indies.

R. A. McLean secured the alumni prize for the best general examination, the prize of the New York State Veterinary Society for the best practical examination, and the prize for the best examination on surgical pathology. J. B. Rogers received the prize of anatomy, consisting of a case of surgical instruments; and D. Light, of the junior class, was awarded a silver medal for the best anatomical examination. Professor James Law, of Cornell University, delivered the address to the graduates.

MEDICAL DEPARTMENT OF UNIVERSITY OF IOWA.—The Ninth Annual Commencement of the Medical Department of the State University of Iowa took place at Iowa City, Wednesday P.M., March 5, 1879. Fifteen candidates received the degree of Doctor of Medicine. Mr. Fred. H. Little, of Muscatine, delivered the Class Valedictory. The degrees were conferred by His Excellency Governor John H. Gear. The Faculty address was pronounced by President J. L. Pickard. The Medical Department has established a graded course of study, which has been in operation for three years, and is showing most valuable results.

FEMALE PHARMACISTS IN HOLLAND.—In 1865 a Mlle. Tobbe, the daughter of a deceased physician of Zaandijk, Holland, petitioned for permission to inscribe herself as apprentice in pharmacy, but was re-

fused on the technical ground that the existing law employed only the masculine pronoun in speaking of the course of instruction for such apprentices. In the following year, however, a law was passed admitting women as well as men to all the examinations for the degree of pharmacist, and already over one hundred ladies, many of them daughters of country physicians or of pharmacists, have taken advantage of the law, and been inscribed as apprentices in pharmacy. The matriculating or introductory examination that must be passed previous to this inscription is pretty severe. It comprises the Dutch language, arithmetic, latin, the reading and explanation of written and printed prescriptions, the theoretical knowledge of drugs, the recognition of simples by their external qualities, the origin of drugs, their scientific denominations and their synonymes, and the preparation of prescriptions. It is a striking fact, and one not altogether flattering to the stronger sex, that since the above law went into operation, the number of male candidates who failed to pass this introductory examination was, relatively speaking, double that of the rejected female candidates. The female apprentices are much sought after in the larger cities of Holland, and are even to be found in the public dispensaries, where they are preferred to men, on account of their greater habits of order, cleanliness, and exactitude.

Treatment of Tapeworm.—Fleischmann employs the following method for the removal of tænia mediocanellata. No preparatory treatment is required. The child is given a bowl of milk for breakfast, and one hour afterwards ten of the following pills are administered: ℞. Extr. punic. granat. rec. præp., extr. filicis mar. æther., āā grs. xxxviij.; pulv. punic. granat., q. s. ut fiat massa, div. in pil. No. 40. The dose of pills is repeated twice, at intervals of half an hour; if one of the doses be vomited, the last ten pills are administered. Between the doses lukewarm tea or lemonade is given to hasten the dissolving of the pills and to counteract nausea, if it should exist. At the end of three or four hours a dose of oil with beef-tea is administered, or, instead of it, half of the following mixture: ℞. Extr. punic. granat. (or filicis mar. æther.) grs. xxxviij.; Ol. ricini, mucil. acaciæ, āā ʒ ijss.; aq. menth. pip. ʒ i. M. —*Deutsche Medic. Wochen.*

Treatment of Obstinate Vomiting by Small Doses of Iodide of Potassium.—Dr. Formica Corsi states that he has cured with this drug cases of persistent vomiting that proved rebellious to the usual methods of treatment, and that he has known it to be equally successful in the hands of other practitioners. He cites the case of a woman who was suffering from typhoid fever and was at the same time in the second month of pregnancy. The vomiting resisted all the known anti-emetics. Finally he ordered a teaspoonful, every hour and a half, of a mixture consisting of half a grain of iodide of potassium in three ounces of water. On the following day the vomiting ceased.

Dr. Giné confirms this statement concerning the anti-emetic properties of the drug, and states further, that, when given in doses of one-sixth to five-sixths of a grain per diem, it possesses decided laxative qualities.—*Gazette Obstétricale.*

Treatment of Psoriasis Vulgaris.—Dr. Tichomirow reports a case of pronounced psoriasis vulgaris diffusa in a boy ten years of age, that was cured by subcutaneous injections of arsenious acid. The eruption was very marked, and was spread over the entire body. At the commencement of the treatment $\frac{1}{60}$ grain of arsenious acid was injected daily, and the dose was gradually (every three or four days) increased, until $\frac{1}{12}$ grain was administered pro die. After the sixth injection the scales began to fall off; when about one grain of the acid had been administered the infiltration of the skin began to diminish, and after a few warm baths and inunctions with oil the entire surface of the body was cleared of the scales. Hebra's modification of Wilkinson's salve was then employed in connection with the injections. When about $3\frac{1}{2}$ grains of the acid had been used, no trace of the disease remained beyond a slight hyperæmia of the affected spots. The treatment was then discontinued for fifteen days, and again resumed on account of a return of the disease. Finally, after five months of treatment, during which $4\frac{1}{2}$ grains of arsenious acid had been administered, the cure was complete.—*Allg. Med. Cen. Zeit.*

Sulphate of Copper in Skin Diseases.—Dr. J. Dell Orto (*L'Independente of Turin*) has come to the following conclusions:

1. Sulphate of copper is very useful in diseases of the skin produced by deficiency of nutrition or poverty of the blood, such as pellagra, scrofula, chlorosis, etc.

2. Its trophic action is rapid, constant, and innocent.

3. It is best administered in pills in progressive doses, from one or two to seven centigrammes a day. —*New Orleans Med. and Surg. Journal, Dec.*, 1878.

Cholagogues.—On the authority and experiments of Dr. W. Rutherford, F.R.S., dilute nitric acid, physostigma baptisin, phytolaccin, ammonia benzoate, ammonium phosphate, sodium salicylate, all stimulate the action of the liver. Menispermin and veratrium has a stimulating action upon the intestinal glands only.

Charcoal for Burns.—A retired foundryman claims that powdered charcoal—from pine wood is the best—thickly sprinkled over the burned or scalded surface, and renewed as soon as it falls off, is a never-failing, grateful, and speedy remedy. It relieves pain, and heals as if by magic.

Dissection.—London is complaining of the paucity of subjects for dissection.

Pituri, prepared from a plant growing in Australia, named *Duboisia Hopwoodii*, is said, by Drs. Sidney Ringer and Murell, to be slightly narcotic and closely allied to atropia, to first salivate, then dry the secretion, and dilate the pupil. They claim that its more prominent effects resemble gelseminum and jaborandi.

BOOKS RECEIVED.

Atlas of Human Anatomy, with Explanatory Text, by Prof. Dr. C. E. Bock (Leipsic). Containing thirty-eight colored plates of the bones, muscles, vessels, and nerves of the human body, organs of sense—eye, ear, tongue—respiratory apparatus, abdominal and pelvic viscera, organization of fœtus, the teeth, w the genito-urinary organs of the male and female. Folio. Cloth. New York: William Wood & Co., 1879.

Wood's Medical Library of Standard Medical Authors. No. III. A Clinical Treatise on Diseases of the Liver, by Dr. Fried. Theod. Frerichs, Prof. Clin. Med., Univ. Berlin. Vol. I., translated by Chas. Murchison, M.D., F.R.C.P. 8vo, pp. 224. New York: William Wood & Co., 1879.

Original Communications.

ON "RAPID LITHOTRITY WITH EVACUATION"—"LITHOLAPAXY" OF BIGELOW.

WITH A SECOND SERIES OF CASES.

By W. H. VAN BUREN, M.D.,

PROFESSOR OF SURGERY, BELLEVUE HOSPITAL MEDICAL COLLEGE.

In September last I published in the RECORD six cases of stone in the bladder, treated by the new method. I have now to add a summary of seven additional cases which have since passed through my hands. Their uniformly successful result tends to confirm the favorable estimate already assumed of the superior safety and effectiveness of the American modification of the operation of lithotrity. The value of Prof. Bigelow's discovery of the hitherto unsuspected tolerance by the bladder of the judicious use of the lithotrite and washing-bottle, when this organ is at the same time entirely freed from calculous matter, is becoming gradually apparent.

In the following cases, which have been taken as they presented themselves in private practice, without selection, there has been no serious reaction in any instance; atony has not been caused, nor aggravated when already present, nor has any serious drawback been encountered. The manipulations have been conducted deliberately and with great gentleness, more attention having been given to entire removal of the fragments than to the time employed, which, as confidence in the new method is gained and facility in detail acquired, can certainly be shortened.

CASE I.—R. M., Esq., æt. 63, of New Orleans, consulted me in October, 1877, with a history of atony, requiring the catheter since the previous July, and more recently of bloody urine after horseback exercise. Some vesical irritability since 1850. Examined for stone by Reliquet, in Paris, in 1876, with negative result. I found some enlargement of prostate, and a rough movable stone more than an inch in diameter. Mr. M. could not remain in New York, and was subjected to lithotrity elsewhere, but never got entire relief, though passing much calculous matter after the several crushings to which he was subjected.

In August, 1878, he returned with very frequent and painful calls, and turbid ammoniacal urine, and I recognized several calculous masses in the bladder by the searcher.

On September 2d seventy-two grains of mixed urates and phosphates were removed in forty-five minutes. The bladder was distinctly trabeculated, and the manipulations were conducted with great care. There was no chill or increase of temperature, and prompt relief followed: the urine became acid and comparatively clear, and the intervals longer. After a final search he left for home on the 12th of September, holding his water four to five hours, having been instructed to evacuate and wash out the bladder in the morning with the borax and glycerine solution, and at night with water acidulated by nitric acid. Subsequent reports have been entirely favorable as to permanency of cure.

CASE II.—F. H., Esq., æt. 58, brought by Dr. H. S. Downs, of Bleecker Street, September 28, 1878, with symptoms of stone for the last three years, occurring in paroxysms. Gets up now four times at night; calls more frequent during the day. Urine acid, nearly clear. Stone smooth, hard, solitary. Operation on October 2d. The stone was caught by the largest Thompson lithotrite, which marked a diameter of one and three-eighth inches, and it required more than my unaided strength of hand to crush it, but it finally gave way with quite a report. After three or four fragments had been crushed, Dr. Keyes completed the operation with his modified Thompson's instrument. Whole time, forty-two minutes; weight of débris, dried, 239 grains of nearly pure uric acid. Mild reaction followed, with some blood and pus in the urine, more frequent calls, and a slight epididymitis. These symptoms subsided gradually after the first week, and entire recovery followed. The patient remains well at this date.

CASE III.—A healthy girl, in her eighth year, was brought to me by Dr. Morje, of East 71st Street, October 3, 1878, accompanied by her parents, who gave an account of bladder symptoms of a year's duration, which occurred in paroxysms; and of a confession by the child that fourteen months before she had introduced a hair-pin into the privates and lost it. I recognized by the searcher an immovable foreign body of some size, which gave the sensation of an irregular calculous mass in the bladder.

On the 9th of October, under ether, the mass crumbled readily in the grasp of a lithotrite, but a long smooth body, the ends of which seemed fixed in the lateral walls of the bladder just within its orifice, remained between the jaws of the instrument, and could not be dislodged without more force than seemed justifiable. Gentle manœuvres with the several instruments contrived for the removal of hair-pins, aided by the little finger in the vagina, failed to free the extremities of the foreign body, and we finally succeeded by forcible traction upon its middle by means of a polypus forceps, in withdrawing a hair-pin of ordinary size, much bent, and still showing traces of phosphatic calculous incrustation. The fragments which remained were then crushed and pumped out by the washing bottle, the urethra having been dilated to admit the evacuating tube. The crushing and evacuation was attended by slight delay, for the bladder was found to be somewhat puckered and distorted in shape by the plastic exudation provoked by the extremities of the foreign body.

The child recovered promptly, without any bad symptoms.

CASE IV.—Mr. J. C. P., æt. 57, was brought to the city on the 9th of December, 1878, by his physician, Dr. Frank Paddock, of Pittsfield, Mass., who had recently discovered a stone in his bladder, explaining symptoms of many years' duration, which had latterly become urgent. I made out the existence of atony to the extent of half a pint, and the presence of two calculi, one a half inch in diameter, and another, struck whilst the first was in the jaws of the exploring instrument, a good deal larger. The urine was not very murky, and the kidneys were healthy.

On the next day Mr. P. was etherized, the stones crushed, and 136 grains (of mixed urates) evacuated in forty minutes. There was no chill or febrile reaction, but the urine contained some blood and mucoid pus for five or six days, and at first the calls were quite frequent. After this he improved steadily, and, having been taught to use the catheter and fountain-syringe systematically, returned home on the twelfth day.

On the 11th of February Mr. P. came to the city for a final examination. He was entirely free from pain, holding his water from three to eight hours, and gaining flesh; a careful search of the bladder discovered no calculous fragments. Residual urine about eight

ounces—the same as before the operation. Directed to use tar-water with his daily injection.

Case V.—Mr. P. J., æt. 51, a hyperæsthetic person, with enlarged knuckles, who has suffered from bleeding piles, but is otherwise healthy, has suffered from frequent and painful calls to urinate for four years, and his symptoms are increasing in urgency. Has had numerous attacks of renal colic. Is disturbed three or four times at night and much more frequently during the day.

A large, movable calculus was recognized, and, his urine showing but little pus, and no casts or sugar, he was subjected to rapid lithotrity on the 15th of January, 1879. The calculus measured an inch and a half, and the bladder was cleared within the hour, the débris, consisting of buff urates, weighing 360 grains. He was unable to pass water for about twenty-four hours, apparently from swelling of the deep urethra, for there was no atony; no chill; temperature reached 101.2°, and the pulse 108. The Jaques catheter passed readily. Urine slightly bloody until the 19th, after the first stool. The intervals gradually increased, and pain went away. On the seventh day Mr. J. walked out, and shortly afterwards started on a trip to the South for the benefit of his general health. On the 24th he visited me in improved health. Bladder examined and found free from calculous matter, and not sensitive. No atony. Advised to wash out every other day until the urine becomes bright. Mr. J. sleeps all night, but urinates every two to four hours during the day, mainly from habit and nervous irritability.

Case VI.—Mr. C., æt. 51, sent by Dr. R. J. Carroll, of Red Hook, N. Y., January, 1879. A rather delicate person, much shattered by the constant pain and urgency in micturition, from which he has suffered more than three years, and by the recent use of narcotics. He has had several attacks of renal colic, and his urine, which contains a good deal of pus, is voided with much suffering about every hour. I found a movable calculus, not too large, and an oversensitive but full-sized urethra, and advised rapid lithotrity. As he preferred to have the operation performed at home, this was done on the 28th of January by Dr. Keyes, assisted by Dr. Carroll and Dr. L. A. Stimson, 260 grains of grayish-pink urates being evacuated in thirty-five minutes. On the 31st Dr. Carroll reported favorably of the patient's condition and progress. There was some bloody urine following the operation, but no serious febrile reaction, and no retention.

Case VII.—Mr. J. McG., of Newark, N. J., æt. 54, first consulted me in November, 1877, for paroxysms of frequent and painful micturition, with pain at the meatus. Rarely gets up at night. Urine clear; sometimes bloody. Prostate rigid and slightly enlarged; a smooth, hard, movable stone detected in the bladder. Lithotrity advised.

The patient yielded to delusive hopes of cure by medical means, and did not finally submit to operation until urged thereto by Dr. Willmarth, of South Orange, with whose assistance Dr. Keyes, on the 12th of February, 1879, evacuated 127 grains of red urates and uric acid, in thirty minutes. The reports since indicate no trouble after the operation, and the promise of a satisfactory cure.

In the *London Lancet* of February 1st, 1879, Sir Henry Thompson, speaking of the new operation in a reported lecture, confesses "that the proposition to remove a large, hard stone at one sitting is an attractive one," but he recoils at the "large and heavy lithotrites" at first employed by Bigelow. I say *at first*, for although the superior advantages of powerful instruments for litholapaxy are recognized, they have since been made much lighter; and Dr. Keyes and I have never used any other than "the comparatively small but strong" lithotrites described and employed by Thompson himself—*but modified so as to work successfully for an indefinite time in the bladder without clogging.* This great advantage of the instruments employed for litholapaxy in America is passed *sub silentio* by the English lithotritist. He "prefers to employ," as he tells his students, "in every case, two lithotrites alternately, handing the first when withdrawn full of débris to my assistant, who clears it out completely while I am crushing with the other, which, in its turn, is cleaned, and again used." Now, with all respect, I claim that this method, subjecting the parts, as it certainly does, to injury by the repeated withdrawal of a lithotrite full of débris, is inferior to the operation as performed in America. In none of the cases I have here recorded was it necessary to withdraw the instrument in consequence of clogging; and in one of them, where the stone was very large and hard, the Keyes' lithotrite was worked actively and uninterruptedly for twenty minutes, and came out perfectly clean. I have no doubt that the Bigelow instruments are equally efficient in this respect.

Sir Henry's principal objection to the American operation, that the original Bigelow instruments were "enormous and unwieldy" is therefore not tenable; even if it were, it would be fairly counterbalanced by their superiority in not requiring withdrawal for cleaning during an operation.

The length of time consumed in the earlier operations by the new method is also criticised, and justly; but this is not a fault of the operation—rather of the operators; no living lithotritist beside the critic can be held responsible for a dexterity acquired in treating 422 cases of stone by the crushing operations.

In the *Lancet* of the following week, February 8, 1879, the leading editorial is devoted to the subject of "rapid" lithotrity. The writer, alluding to Clover's apparatus for evacuating fragments from the bladder, says "this practice has not been very extensively adopted. Sir Henry Thompson, for instance, opposed it, except in unusual cases, on the ground that the removal of the detritus by the aspirator caused as much irritation as the crushing by the lithotrite, and that repeated injections, which change rapidly and considerably the volume of the bladder, always irritate the organ."

The writer adds, subsequently: "We confess it was not without some surprise that we found Sir Henry Thompson, in a lecture published in our columns last week, in referring to Professor Bigelow's proposal, saying: 'I am bound to say that my own system has for a long time past been gradually inclining to the practice of crushing more calculus at a sitting, and removing more débris by the aspirator than I formerly did.'" "This," continues the editor, "is an important confession, and involves the abandonment of his old position. For some time to come lithotrity may be practised under the new and seemingly harsher conditions [of litholapaxy], and months or even years must necessarily elapse before the surgical world can be in possession of sufficient data for a definitive judgment. Meanwhile we shall watch and wait."

It is evident from these quotations that the American modification of lithotrity is commanding attention abroad; and, in the change of base attributed to Sir Henry Thompson is to be recognized an acknowledgment of the superiority of Professor Bigelow's strategic position.

SOME REMARKS ON TYPHO-MALARIAL FEVER.

By C. B. WHITE, M.D.,

SURGEON, U.S.A.

(Read Feb. 27, 1879, before the Central Ohio Medical Association.)

DR. MEREDITH CLYMER, editor of the American Edition of Aitken's Practice of Medicine, gives this fever the following definition (p. 509, Vol. I.):

"An idiopathic fever of mixed type, caused by a combination of paludal and pythogenetic influences, with marked remissions and exacerbations at the beginning, and, after a variable period, becomes continuous; attended with early prostration, diarrhœa, and subsequently extreme adynamia; the characteristic lesion is enlargement and ulceration of the solitary intestinal glands."

He further explains that this disease first claimed notice in 1862, as the "Chicahominy fever," and occurred among men "saturated with paludal poison, exhausted by over-exertion and insufficient rest, imperfectly nourished, exposed to the action of animal effluvia from the decaying bodies of both men and brutes, and drinking water impregnated with the products of common putrefaction," and that the name was proposed and first used by Dr. J. J. Woodward, U. S. A.

Woodward's "Camp Diseases" (p. 40), speaking of "malarial cachexia," describes it as "manifested by a sallow or yellowish complexion, generally accompanied by more or less emaciation, with disturbed bowels, disordered appetite, yellowness of the conjunctiva, torpor of the intellectual functions, debility, and a disinclination to exertion of every kind."

The same author describes forms of typho-malarial fever in which the malarial, typhoid, or scorbutic elements, severally, may predominate; and on page 79 says:

"These early stages of the disease, moreover, are frequently accompanied by the icteroid hue, the gastric tenderness, the nausea and vomiting of remittent fever." He mentions earlier, "These cases generally begin with a more or less decided chill, followed by fever."

Headland's "Action of Medicines," art. Quinine (p. 357), says:

"Quinine is also serviceable in gout, scrofula, dyspepsia, and other disorders, in all of which other medicines which stimulate the secretion of the bile are more or less applicable. Torpidity of the liver is likewise a usual accompaniment of the various forms of debility, and occurs in intermittent, remittent, typhoid and yellow fevers, in each of which this medicine has been recommended and used with advantage. It fact, it may be said that *in all diseases in which quinine is used, there is a failure in the secretion of bile, and in all diseases in which there is a failure in the secretion of bile quinine is* SERVICEABLE. There appears to be some connection between these two things." [Italicized by present writer.]

It was the writer's fortune to serve with troops in the Southern States of America from 1861, with only slight interruption, to 1868, and he can expressly, from his own knowledge, confirm the statements of Drs. Clymer and Woodward in reference to the fever they treat of. His experience in the Scioto Valley, during 1878, recalls vividly much of our sufferings in 1862, near Richmond, Va. The malarial cachexia and congestion of the internal organs, named by Drs. Woodward and Headland, came upon him so insidiously during the winter of 1877–78, as to warp his judgment and benumb his intellectual faculties before he was aware of it; and the first case of typho-malarial fever under his care (his own child) died of the disease. Some writers and teachers have endeavored to ignore the existence of a compound fever, typhoid in form and malarial in character; but in the present writer's opinion they are mistaken. They lay much stress on the fact that quinine, in many of these cases, seems to have little or no remedial effect; that proves nothing, for in some cases of congestive chill (plainly malarial) quinine is equally inefficacious; in both series of cases the remedy may be administered too late, or there may be at work toxic forces that more than neutralize its good influence. Further than this, quinine, even when administered judiciously and in good time, does not always cure common intermittent fever, recourse being necessary to combinations with arsenic, iron, nux vomica and salicine, or the use of these remedies severally or combined with simple bitter tonics; removal from the district is sometimes the *only perfect remedy.*

Dr. Headland's statement in regard to internal congestions as caused by malaria is pregnant with suggestive thoughts, and affords a most rational explanation of the icteroid hue of skin, nervous headache, constipation of the bowels, and loss of appetite so constantly noticed in especially unwholesome seasons or in unfavorable circumstances, in certain malarial districts. The old plan was to purge freely in these cases and to use calomel; and even so recent a writer as Waring (Therapeutics, p. 539) says of the action of quinine as an anti-periodic:

"It is necessary to ascertain by careful examination that no hepatic or visceral disease exists; such complications rendering the remedy not only inert, but injurious."

He further quotes Dr. Eyre (Indian Service), "that he often found quinine fail, and that he has never seen it otherwise than injurious when there exists a disordered state of the primæ viæ."

While it may not be judicious in cases of obstruction of the bowels to use LARGE doses of quinine, without laxatives to co-operate, still tonic doses, especially combined with tartrate of iron and potash, or the tincture of the chloride of iron and a little strychnia, will never do any harm, but much good in malarial constipation.

A certain proportion of the Chicahominy cases had persistent diarrhœa, and it was noticed that these were less liable to result fatally, unless the discharges were too long neglected and diet unattended to (support being necessary); some of the diarrhœas then contracted, remained for years after, affecting the subjects at irregular intervals, but making the bowels habitually loose and serving their owners a good purpose when exposed to Asiatic cholera and yellow fever (in both of these diseases the writer has found previous constipation a serious complication, and very possibly causing a predisposition thereto).

During the seven days in front of Richmond, in 1862, while there was a strong pressure on medical officers to excuse men from duty for malarial cachexia only, a corporal of artillery reported at sick call, very yellow in complexion, and having headache and constipation of the bowels. By reason of his indomitable courage and devotion to duty he declined being excused, merely wanted medicine, and the next day *died while his battery was at* [illegible].

Similar cases of malarial congestion have been known to the writer, during the past year, in Ohio, *also resulting fatally*, in which the icteroid hue and the constipation were the chief symptoms.

CAUSES FOR THE MALARIAL OUTBREAK OF 1878.

It is a well-known fact that, as various parts of our country have become more thickly settled and consequently better drained, and the houses as well as clothing and diet of the inhabitants more comfortable and better adapted to their needs, malaria, as shown in its concentrated forms of "congestive chill" or malignant intermittent fever, becomes almost unknown; a milder form being substituted, showing itself openly in well-marked chills, with but little interference usually with the nutrition of the subject. Still later in a district's progress, come well-marked enteric fevers, accompanied by the characteristic eruption and bowel symptoms, including frequently severe hemorrhages. But when a mild winter occurs, like that of 1877–78, malaria germs are not destroyed to the usual extent, and with the first warm days of spring alternating with frosty spells, there occurs an outbreak of a low form of fever, accompanied with some inflammation of the air-passages (bronchitis or lobular pneumonia usually), and we have, at a most unusual and unexpected time of year, a disease to contend with, typhoid in form and malarial in character, peculiarly liable to affect children who may be outgrowing their strength or poisoned by unwholesome effluvia around school-houses, and young people exhausted by continuous mental and bodily effort, consequently careless of their diet and peculiarly open to morbific influences, as well as people of all classes reduced in health or weakened in strength. A further addition to the sufferers by this disease are those who, already exposed to malarial influence, meet with some great disappointment that weighs on their spirits and diminishes their vitality; there is probably no disease known, except Asiatic cholera, in which depression of mind so favors the accession.

Some popular writers have wished to claim, on behalf of the dwellers near unsightly and unwholesome piles of animal ordure, collected on farms for fertilization purposes, that their good health is a proof of the harmlessness of such exhalations: this cannot be the case, and the immunity is no doubt due to the larger amount of fresh air obtained in these cases, probably also to the fact that these substances are actually less injurious than the effluvia arising in cities from dejecta of human origin.

To further prove that nothing offensive can be wholly harmless, it seems to be now extensively believed that "hog cholera" is a typhoid fever, brought about by over-crowding, exposure to violent variations of temperature and to the effluvia of the animal's own dejecta; and its effects best combated by better care, separation, and a change of food: a recent newspaper paragraph states that feeding swine affected by it or predisposed to it, with charred or partly burned corn, has had a most excellent result, which seems reasonable, as we know the good effects of charcoal in various affections of the digestive tract.

Since the writer's residence near Columbus he has had occasion to notice the prevalence of south-westerly winds, which blow back into the city the gases contained in the sewers (these latter emptying in a south-westerly or westerly direction into the Scioto River), which is an unfortunate circumstance as affecting local hygiene. Another circumstance peculiarly unfortunate is the damming of the river at Columbus, for feeding certain canals; flowing water absorbs much injurious material, and the more rapidly it flows the better for all living near it. During the civil war our medical officers constantly noticed the benefits of a camp near a flowing stream as diminishing the effects of surrounding malaria; especially did we find the neighborhood of the turbulent, seething, irresistible masses of the Mississippi River water useful to our health and well being.

Typho-malarial fever does not seem to be so directly infectious as true typhoid fever, but there appears to be no doubt that it is directly promoted and its virulence increased by the presence of sewer gases, decaying matters, defective drains and other unwholesome influences; all such causes had more material and better opportunity for their effects in the following mild winter of 1877–78.

The fruit crop of 1877 was notably a deficient one, and both fruit and vegetables did not keep as well, nor were as wholesome in the mild winter following as in usual seasons; and the spring of 1878 was notably behindhand in bringing us early fruits from distant markets. The fruits of the earth are both useful in acting directly on the bowels and as stimulating, as a relish, an appetite for other articles of diet, and their absence or scarcity must always act injuriously.

PECULIARITIES OF THE RECENT DISEASE.

In 1878 this continued fever often began with distinct chills, marked by repeated perfect intermissions, and in some cases the chills were apparently "broken" by the exhibition of anti-periodic medicine; still, after a variable interval of comparative health, usually three or four days to one week, a low form of continued fever came on, accompanied by moderate delirium, entire loss of relish for food, little thirst, but much heat of skin and derangement of the digestive organs; diarrhœa was not constantly present, not even in the less congestive cases.

In some of these cases abortion seemed to occur, the disease not running a full course; but in others there followed, even after a slow convalescence, sequelæ of continued fever, such as chronic conjunctivitis, inflammations of the joints, and deafness; accompanied with unusual paleness and great debility, as long-continued as after the ordinary enteric fever.

Dr. Woodward mentions the lesions of the bowels as affecting the ileum. During the past year I have noticed ulcerated patches as more usual and more frequent in the colon; perhaps very few spots in the small intestine, and in the large intestine large and frequent ulcerations. I should not give this so important a notice, but on consultation with Prof. Loving of Columbus, a careful and conscientious observer of large experience, he states that he believes ulcerations of the large intestine to be a distinguishing mark of this disease, and exhibited preparations illustrating this pathological view.

PROPHYLAXIS AND TREATMENT.

As a means of guarding against any low form of malarial fever, removal from the locality is probably the best. And in combating such disease, iron in some of its forms, combined with quinine or with arsenic, seems the most efficient preventive. After the occurrence of the disease alcoholic stimulants and easily assimilated food and tonic doses of quinine seem to do the best. To reduce the temperature, should the milder treatment prove inefficacious, moderate doses of quinine, repeated at intervals, should have a fair trial; it does not follow because the exhibition of excessive doses has apparently been injurious, that we should discard this remedy. The opinion of the profession in this country seems to be opposed to the cold pack and cold bath, as recommended by Prof.

Liebermeister in ordinary typhoid fever (Ziemssen's Practice, Vol. I.); but the success of sponging seems to indicate its value, and it seems as if this system should have a fuller though careful trial even in typho-malarial fever.

Except the administration of larger doses of antiperiodics than is necessary in true typhoid fever, the indications for precautions and for support and treatment are the same. It seems to be a disease more controllable by preventives than the ordinary enteric fever, but when it does occur in an unmodified form it has the same deadly and long-extended course as its better known congener.

In treating this disease the practitioner must be on his guard against the long continued fainting-fits that so often occur in it, and strong spirits of ammonia for inhalation and extra quantities of strong spirits of wine (properly diluted) should be kept constantly at hand and the nurse instructed to use them freely. It is not considered possible to give a typhoid fever patient, even if a child, so large a quantity of wine or brandy as to do any permanent harm.

Further, in this great debility and with life hanging as by a thread, the head should not be raised, medicaments and food being given by spoonfuls or through a tube.

COLUMBUS BARRACKS, OHIO, Feb. 24, 1879.

ANTISEPTIC SURGERY.

BY FANEUIL D. WEISSE, M.D.,

PROFESSOR OF PRACTICAL AND SURGICAL ANATOMY, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

IN the MEDICAL RECORD of March 1st, 1879, appears a well-timed editorial résumé and digest of the present status of so-called antiseptic surgery.

Being firmly imbued with the importance of keeping constantly in mind that germ-laden air produces, by inducing the putrefactive process in a wound, the constitutional sequelæ of surgical fever and septicæmia, I cannot refrain from forwarding to your excellent journal the following reflections upon the analysis of the five methods of antiseptic surgery now in use.

The writer of the article says:

"The two disturbing elements preventing primary union are: 1st. Tension from effusion of blood or serum, causing separation of the edges of the wound. 2d. Inflammation and suppuration, followed by putrefaction and secondary phenomena, which we designate as surgical fever, pyæmia, and septicæmia." In closing, the writer gives this as his conclusion upon Mr. Lister's method: "If we were called upon to decide what was the most important element in Mr. Lister's dressing, we should say that it was his system of drainage, and to this, more than anything else, must be attributed his success."

Free drainage, as a factor in guarding against the first disturbing element, preventing primary union, is self-evident. Of its influence on the second, it seems to me that inflammation and suppuration would be produced by tension of retained fluids—a condition which would undoubtedly defeat primary union; but if these fluids, as effused, were guarded from the access of germs from the air, they would never undergo putrefaction.

I would regard the sequence that occurs leading to the secondary phenomena—no matter what the method of drainage—to be:

1st. Germs from the air obtain access to the fluids effused at the surface of the wound.

2d. The putrefactive process is initiated, and putrid fluids bathe the wound.

3d. These putrid fluids absorbed, the secondary phenomena of surgical fever and septicæmia follow.

Of the agents used in the dressings of the five methods, an antiseptic or germ-killing agent is common to them all; while, in four of the five methods, raw cotton is applied. The efficacy of raw cotton, as resorted to, is due to its *preventing the access of germs to the wound, by filtering the air that permeates it, and trapping the germs with which it is laden, upon the fibres of its exposed portion*; thus the germs, "falling in a barren place," find nothing in which to set up the putrefactive process.

The *modus operandi* of the five methods practised may be epitomized, as, three ways in which germ implantation at the surface of the wound is prevented: 1st. By the continued application of a germ-destroying agent; 2d. By the initial application of an antiseptic, and the subsequent prevention of the access of germs to the wound; 3d. The continuous application of a germ-destroyer and a germ-trap.

Dr. James R. Wood, in his open method of treatment with the continuous application of a watery solution of carbolic acid and of balsam Peru, fulfils the first; the second is carried out by Mr. Lister, Dr. Guerin, and Mr. Callender; the third is followed by Mr. Gamgee with his continuous dressing of oakum and cotton.

From the present advanced standpoint of antiseptic surgery, I agree with the writer, that we can undoubtedly regard some of Mr. Lister's precautionary measures—such as the spray as unnecessary. But, we should accord to Mr. Lister the entire credit of having pointed out the way to effect the triumphs in the surgery of to-day. The recognition of the baneful effects of germ implantation from the air on the surface of wounds, and the pointing out, as the indication of treatment, the preventing of the same, must be regarded, with the introduction of the ligature by Ambroise Paré, and the recognition of anæsthesia by Wells, as the three great epochs of surgery.

From the line of argument adduced, it appears to me that the five procedures of antiseptic surgery present no incongruities. They all insure rest to the wounded part, and free drainage therefrom, which militate against simple inflammatory action from disturbance of the part, or tension from retained fluids; and, in the three methods where coaptation of the wound is resorted to, they favor primary union. They also all provide for—what the writer of the editorial means to imply by the word "cleanliness," without according to it its due weight, or explaining its *modus operandi*—the prevention of germ implantation from the air, upon the surface of the wound.

This last indication fulfilled, is the key to the results in common of the five methods, viz.: the successful prophylaxis of putrefaction of the organic matter in the fluids effused from the wound, thus effectually doing away with the only condition that leads to the constitutional sequelæ or secondary phenomena of surgical fever and septicæmia. To the carrying out of this latter indication must be credited the wonderful successes of antiseptic surgery, as compared with the results in the treatment of wounds and surgical operations previous to its introduction.

It is often said, that without antiseptic methods surgeons had in the past similar successes to those of antiseptic surgery. True, but those successes were occasional, not uniform or continuous, and they were not looked for with any degree of certainty. Want of success was explained by "faulty states of the

patient's system," "want of reparative power," etc., etc.

Antiseptic surgery, *by preventing putrefaction in the wound*, has given a precision to surgical prognosis, by which we with reasonable certainty look for given results. Besides which, it has broadened the field of operative surgery, by enabling us to resort to operations, which, without its protective influence, would be unwarranted, or, at least, would be unwarranted in the light of the statistics of the operations performed in days gone by, when antiseptic surgery was not.

ON THE PERMANENT REMOVAL OF HAIR BY ELECTROLYSIS.

By GEORGE HENRY FOX, M.D.,

NEW YORK.

(Paper read before the Medical Society of the State of New York, February 4, 1879.)

NEXT to our sympathy with the man who cannot raise a beard, comes our pity for the woman upon whom Nature has unkindly bestowed one. Her distress need not be pictured, as there is scarcely a physician present who cannot call to mind some lady who has besought him for a remedy to rid her of hair upon the face. What has been done in such a case? Possibly the various depilatories recommended in text-books on Dermatology have been tried and found to be no more serviceable and far more unpleasant than the use of a razor. Possibly an effort has been made to destroy the hairs by inserting hot needles, or injecting acids into the follicles. These means having proved futile, or perhaps harmful, it is possible that a vain attempt has been made to persuade the sufferer that the matter was of little or no consequence, and that cutting the hairs short, or plucking them with tweezers would remedy the evil.

It is quite probable, however, that the statement has been made that *nothing* could be done; and the patient, convinced that something must be done, has finally fallen into the hands of some advertising charlatan, and only yielded to despair after having been thoroughly swindled.

This form of perverted capillary nutrition, which shows itself upon the female face in the form of a promising moustache or beard, is by no means rare. Physicians are not only called upon to treat this, but also the few stiff hairs which are so often seen growing from a small fibrous tumor or pigmented nævus. In both these cases it is evident that destruction of the hair papillæ is the only means of radical cure; and in electrolysis we have, I am convinced, the best, if not the only practicable means of accomplishing this end.

To ophthalmology is due the credit of first employing electricity for the purpose of destroying hairs. Dr. Michel, of St. Louis (Clinical Record, Oct., 1875), recommended electrolysis in the treatment of trichiasis, and employed a method very similar to that which I have found serviceable. Dr. Piffard (Diseases of the Skin) speaks of treating two cases of hairy nævus by electrolysis, and in a paper presented to the American Dermatological Society (Aug., 1878), on the treatment of hirsuties, Dr. Hardaway advocated its use. As far as my knowledge goes, this is the extent of the literature of the subject.

The apparatus required for the operation is an ordinary galvanic battery, with a needle or fine wire attached to the negative electrode, and a sponge-tipped positive electrode, which should be applied to the skin as near as convenient to the field of operation. In my first attempts I introduced into the follicle a fine cambric needle, wound to within a quarter of an inch of the point, with a copper wire which joined it to the negative cord of the battery. This simple contrivance will answer the purpose, although a better substitute I have found in a fine flexible steel needle, used by dentists in extracting nerves. This needle, together with a convenient handle or holder, can be obtained from any dental-instrument dealer, and is readily attached to the battery cord.

In many cases where the hair follicles are large, as they are apt to be upon the cheeks, a fine platinum wire is superior to any form of needle. It can be filed to a point by means of a jeweler's file, and by virtue of its flexibility it will reach the bottom of the follicle (the hair having been previously extracted), while a stiff and sharp needle would pierce the follicular wall and fail to reach the hair papilla. In fact, whenever a needle is employed, the direction of the hair must be carefully noted or the needle will certainly go wide of its mark and fail to accomplish the destruction of the hair. On the other hand, a fine, soft, flexible wire will to follow the course of the follicle in some instances, as a soft rubber catheter follows the curve of the urethra in its introduction into the bladder. Where, however, the follicles are naturally small, as about the neck, no matter how coarse the hairs may be, the soft wire will either bend upon itself or pierce the wall of the follicle and go in a wrong direction. In such a case it is better to use the stiff needle and introduce it in the direction of the supposed site of the papilla.

In operating, a strong light is essential to success. The patient should sit by a large window and preferably in the sunlight. Where the hairs are numerous and the follicles small, the eyes of the operator soon tire, and a séance of more than a half or three-quarters of an hour is apt to become both unpleasant and unprofitable. The use of a lens has been recommended, but as both hands are generally employed in the operation, I cannot see how it could be conveniently used unless fitted to the eye.

The extraction of the hair should precede the introduction of the needle or wire, in all cases where the follicle is of large size. In case of fine hairs, however, it is unadvisable. Often when a fine hair is extracted it is not an easy matter to see the mouth of the follicle. If the light is at all dull or the eye fatigued, the follicle from which the hair has been extracted, is lost, and there is little certainty of introducing the needle at the right point. Moreover, if the hair be allowed to remain, tension upon it will usually reveal the direction of the follicular portion, and the needle introduced at the mouth of the follicle and pressed down into the skin as near to the hair-root as possible, will be far more apt to reach or approach the papilla than as though it had been introduced into the follicle after the extraction of the hair. Upon the cheeks and chin, where the skin is thick and the follicles slightly patulous, I have found it convenient to use the soft platinum wire *after* removal of the hair. Beneath the chin, however, and upon the neck where the skin is comparatively thin, I prefer to use the stiff, yet flexible needle, introducing it *before* removal of the hair. There is one advantage lost by removing the hair before the introduction of the needle. We have in that case no test of the successful result of the electrolytic action. On the other hand, if the hair be not extracted at the outset, we can judge of the effect produced by the electrolysis. If the hair comes out when pulled very

gently, it is probable that the papilla is destroyed, but if upon traction with the epilating forceps it seems to be as firmly rooted as at first, it is a proof of the inefficacy of the operation, and suggests a re-introduction of the needle and repetition of the electrolysis.

As regards the strength of the current to be used, no absolute rule can be laid down. The stronger the current, the more rapid will be the effect and the greater will be the pain. From five to ten cells of the ordinary zinc and carbon battery may be used, the number selected being dependent upon the susceptibility to pain and the courage of the patient. In no case can the hair papilla be destroyed without some pain, and the patient will naturally stand a trifle more when there are only one or two hairs to be destroyed, than when there are several hundred. The current must be strong enough to cause decomposition of tissue, which will be manifested by the escape of fine bubbles or froth, by the side of the needle at the mouth of the follicle. When the patient is not particularly sensitive, a sufficient number of cells may be employed to produce this peculiar frying of the tissue immediately after the commencement of electrolytic action. With a weaker current this escape of bubbles may not be noticed until a few seconds after the completion of the circuit.

The first effect of the operation is to produce a small whitish elevation around the mouth of the follicle; in fact an urticarial wheal. After a protracted sitting, the part operated upon will be acutely congested and somewhat swollen, and the number of hairs operated on can usually be determined by gently passing the finger over the skin and counting the number of small lumps resulting from peri-follicular exudation. On the following day the diffused congestion will have disappeared and left a number of red papules or small pustules at the mouths of the follicles. These quickly disappear, and we have only to wait patiently for a few weeks to determine how many hairs have escaped destruction. Without an unusual amount of skill and practice on the part of the operator a certain number are almost sure to grow again, and of course the operation must be repeated until all are destroyed. When there are but one or two strong hairs growing upon the cheek from a small hypertrophic nævus, both the hairs and the "wart" from which they spring can be easily destroyed by a single operation, but when a patient has several hundred scattered hairs growing upon her cheeks and chin, successful treatment will require much time and patience. The soft, downy hairs which often grow luxuriantly upon the upper lip and cheeks of certain women, are not amenable to treatment, and fortunately, these are not incompatible with female beauty. But whenever the hairs grow long and strong and dark, producing a serious disfigurement, it can be safely asserted that they may be permanently removed by means of electrolysis.

A Case of Accidental Scalping.—M. Hallez reports the case of a young girl, whose entire scalp was torn off by some revolving machinery in which her hair was caught. The bones of the skull and some of the cervical vertebræ were laid bare, and both ears were torn off. The wound was treated by occlusion. The pain was slight, and the general symptoms were not grave, and the entire surface became covered with granulations. Two months after the accident, however, a series of hemorrhages set in, and the patient died of anæmia.—*Gazette des Hôpitaux.*

A GIANT BIRTH—THE CHILD WEIGHING TWENTY-THREE AND THREE-QUARTERS POUNDS.

By A. P. BEACH, M.D.,

SEVILLE, OHIO.

At the request of many readers of The Medical Record I am persuaded to report a case of labor which I attended a few weeks ago. The great size of the child at birth was the remarkable feature of the case, it being probably the largest human birth on record. It perhaps would be well to state here, that when we take into consideration the immense proportions of the parents, the size of the child need not astonish us. The mother, Mrs. Captain M. V. Bates, whose maiden name was Annie Swan, of Nova Scotia, stands 7 feet 9 inches in height. Captain M. V. Bates, formerly of Kentucky, is 7 feet 7 inches in height. These large people have, undoubtedly, been visited by many of the readers of this journal, as they have given public receptions in nearly all of the large cities and towns of Europe and America.

At 12 M., January 15, 1879, I was called upon to attend this lady in confinement, it being her second labor. I found her surrounded with competent attendants, and everything in order and at hand that would in any way add to her comfort and convenience. Her pains were quite infrequent and light. After a convenient time, with my patient in the usual position, I proceeded to make an examination, but was unable to reach the os uteri, it being so far up. I could not with my hand, by any ordinary effort, make a satisfactory examination, but concluded that she was in the initial stage of labor. She remained in much the same condition for the next 24 hours, passing the night comfortably, and I saw no necessity for any interference with the order of things. At the end of 36 hours the pains became more frequent, and on examination I found the os dilating and labor progressing favorably. The head engaged; position, second occipito-anterior. Notwithstanding the long interval between pains the head made good speed through the great depth of pelvis. At 4 P. M., on the 18th, while conducting an examination during pain, the membranes gave way spontaneously and the amniotic fluid came pouring out so profusely as to startle every one. I had my patient very close to the margin of the bed, as was necessary in order to facilitate manipulation on account of her great size.

The bed was well protected with rubber blankets, which carried the waters over the side of the bed, where they were caught in vessels to the amount of five gallons. That lost by absorption and evacuated with succeeding pains, would make the total of water not less than six gallons. This was, undoubtedly, a case of dropsy of the amnion, co-existent with general dropsy, from which she suffered to some extent during the last months of pregnancy.

Soon after the rupture of membranes the fœtal head was disengaged, and in the soft parts. The mother was in good condition, the fœtus seemed strong and healthy, and everything indicated a speedy and successful termination. But here the trouble began. After the escape of the waters all pain ceased. The great abdominal muscles which had been so much distended lay lax over the fœtus like the blanket which covered the person of the mother.

Inertia was complete. There was no pain except as the result of manipulation. Ten grains of quinine, Squibb's ergot, and brandy were administered. The forceps were resorted to early, but all to no pur-

pose. The forceps could not be successfully applied because of the unusually large head which lay, with the neck, in a vagina that would measure on its posterior aspect 12 inches at least, and from 7 to 9 in its anterior. The safety of the child was my great fear. The head was seemingly almost born, but the shoulders were fast. How to disengage them was the question. The hand could not be passed to reach the shoulder. I had telegraphed for Dr. J. D. Robinson, of Wooster, O., who now came to my assistance. He attempted the use of the forceps with but little success. The child could not be so delivered. After further consultation, as it was our great desire to deliver if possible without mutilation, we passed a strong bandage over the neck of the child, and while one made downward and lateral traction, the other, after several attempts, succeeded in bringing down an arm, and finally after a laborious siege we succeeded in delivering our patient of a male child. It weighed 23¾ lbs.; its height, 30 inches; breast measure, 24 inches; breech, 27 inches; head, 19 inches; foot, 5½ inches in length. The secundines, which were soon removed, weighed 10 lbs. The mother was considerably exhausted, but is making a good recovery. Mrs. Bates, six years ago, gave birth to a dead child in London, weighing 18 lbs., and 24 inches in height. She was attended at that time by one of the celebrated obstetricians of that city, who encountered the same difficulty in delivery that I had.

[We believe that this is the largest infant at birth of which there is any authenticated record. Cazeaux refers to one that weighed 19 pounds. There is a fœtus in the London Hospital Museum 24 inches long. The average length is 20 inches; average circumference of head 13½ inches. The placenta usually weighs ⅛th as much as the fœtus. In this case the secundines in all weighed nearly half as much as the child.—Ed.]

Reports of Hospitals.

NEW YORK STATE WOMAN'S HOSPITAL.

SERVICE OF DR. NATHAN BOZEMAN.

(Reported by DR. RUDOLF TAUSZKY, N. Y.)

CASES OF OVARIOTOMY.

SINCE May last, Dr. Bozeman has performed five ovariotomies, all resulting in recovery. In three of the cases both ovaries were removed. Dr. B. attributes his success (100 per cent. recoveries) to the following points: 1st. If the operation can be safely delayed for a week or more, after coming under treatment, he prepares the patient by administering to her tonics and food as much as she can bear. Iron he considers a most valuable agent in the preparatory stage of the treatment. 2d. The antiseptic method (Lister's) he invariably uses in this, as in all major operations. He thinks his successes are greatly due to the means thus adopted of preventing peritonitis and septicæmia. 3d. The treatment of the pedicle; whether long or short, he returns it into the peritoneal cavity. The doctor transfixes and ties it, right and left, several times with wax, carbolized, strong silk ligatures, and claims that there is no necessity of using clamps or Koeberle's serre-nœud. 4th. He includes the peritoneum into his sutures when closing the abdominal *incision*, which he never makes larger than is necessary in the median line. Carbolized silk sutures are also used for closing the wound as for tying the pedicle. Beef-tea, milk and eggs constitute the food given as soon as the patient has fully recovered from the anæsthetic (ether being used for this purpose). If there is a tendency to vomiting, the food is administered per rectum. Quinine and opium the doctor considers of the highest importance in the after-treatment, given in full doses, as being antiperiodic, and a preventive of peritonitis. Should there be an undue elevation of temperature, not controlled by the medication enumerated, Kibbes' cot comes into requisition. The first incision he never makes larger than is necessary for the introduction into the peritoneal cavity of his abdominal spatula, as the doctor terms it (a flexible, metallic rod, 10 to 12 inches long, well rounded off, with a triangular-shaped termination at either end, like Nott's vaginal depressor), about one inch long, also well rounded off. The size of the tumor, its adhesions, if there be any, are thus explored with the aid of this spatula. The incision is then enlarged to 4–6″, for the purpose of introducing the hand and separating the adhesions, if their presence has been made out, in the mode above described. The next step consists in tapping the cyst or cysts with Spencer Wells's trocar. In multilocular cysts he taps one cyst after the other through the opening made in the first cyst, and so on, the patient being turned on her side. The cysts are thus emptied to a size sufficient to pass his right hand through the abdominal opening into the peritoneal cavity while drawing out the cyst or cysts with his left. This simultaneous use of both hands Dr. B. considers of the utmost importance while drawing out the cyst. The right hand introduced inside the cavity completes the separation of adhesions that may have remained after the use of his spatula, and also guards against any undue stretching or possible rupture of the intestines, gall-bladder, etc., with which there may be adhesions. The omission of this precautionary measure doubtless has caused many fatal results that might have terminated favorably had this precaution been practised. 6–8 grs. of quiniæ sulphate and twenty-five drops of the liquor opii comp., administered per rectum, are the doses of these remedies used from the first for the purposes mentioned. The use of hypodermic injections are being avoided by Dr. B. After ovariotomy, he is of the opinion that on account of the pain thereby produced, the patients abhor them, and thus cause undue nervous excitement. Dr. Bozeman never uses drainage tubes through Douglas's cul-de-sac, but prefers to draw off effusions by means of tubes introduced through the abdominal opening, reaching down to Douglas's cul-de-sac.

Dr. Bozeman performed his first case of ovariotomy in 1865, also successfully, making in all six cases, wherein nine ovaries were removed. The first operation he published September 1, 1866, in THE MEDICAL RECORD, under the title, "Remarks on the History of Ovariotomy," and the report of a case in which the intraperitoneal treatment of the pedicle with the silver ligature was adopted with success. As stated above, Dr. Bozeman now uses only waxed carbolized silk, both for tying the pedicle and the abdominal wound.

A CENTENARIAN.—The oldest woman in Vienna died on October 16th. Her name was Anna Suda; she was born in Bohemia on March 29, 1767, and had consequently reached the uncommon age of 111¼ years. During the last two years of her life she was perfectly blind and imbecile.

Progress of Medical Science.

THE ACTION OF DUBOISINE.—Duboisine, the active principle of *duboisia myoporoides*, an Australian shrub, is a drug which is contending for the place of atropine in ocular therapeutics. A case displaying its powerful action is related by Dr. W. W. Seely, in the *Cincinnati Lancet and Clinic* for February 15th. He instilled three or four drops of duboisine (gr. iv. to ℥ i.) into the eye of a patient, taking no pains to prevent its passing into the throat. The same patient had used a four-grain solution of atropine for some weeks, with only local effects. In five minutes after instillation of the duboisine the pupil was dilated, the accommodation paralyzed, and the patient was complaining of great faintness. In fifteen minutes the faintness began to improve, but the patient felt very drowsy; slight dryness of the throat was present. The face was not flushed, and the pulse was normal. In an hour and twenty minutes the patient was able to walk home, though still feeling sleepy. The next day there was marked oral and faucial dryness, but on the third day the patient felt well, and the pupil was normal. The points in which the drug differed from atropine in its effects were, 1st. The vertigo or faintness; 2d. The sleepiness, which was, however, rather stupor than sleepiness; 3d. The late appearance of faucial dryness; 4th. The apparently negative effects on the pulse; 5th. The absence of flushing of the face.

CHLORALISM AND ALCOHOLISM.—An entirely new series of symptoms is said by Dr. G. D. Griffith to be the result of the prolonged use of chloral for alcoholism. His observations would indicate that the drug may produce a condition akin to that for the cure of which it is given.

Among the first symptoms are pains in the extremities, like those of muscular rheumatism, for which they are generally taken. The drug being continued, the mind becomes affected. It is first weakened, the patient is restless and irritable, and finally has attacks of acute delirium. At this time the face is congested, the eyes blood-shot, the throat red; there may be nausea and vomiting; in spite of large doses the patient sleeps but little. These symptoms end in intense nervous prostration, and perhaps death. They simulate alcoholism, but will only cease when the chloral is discontinued. For distinguishing whether the patient is suffering from chloralism or alcoholism, the withdrawal of the drug is the most efficient means.—*The Practitioner*, Feb., 1879.

ARTIFICIAL VESICO-VAGINAL FISTULA FOR THE CURE OF CHRONIC CYSTITIS.—Some time ago Dr. M. A. Pallen presented the records of eight cases in which he had tried this method in the treatment of cystitis with very good results. The operation has since been endorsed by other gynæcologists.

In his paper on the subject, Dr. Pallen insists first upon the necessity of a careful diagnosis between urethral and vesical trouble. To insure this, he himself always employs dilatation of the urethra and physical exploration with finger and speculum.

In regard to the cases appropriate for this extreme measure of treatment, there are many milder forms of vesical trouble which do not need it. In these, replacement of the uterus, and operations upon the anterior vaginal wall or perineum, with suitable medication, may be sufficient. When chronic cystitis proper, however, is found to exist, there is but one remedy, and that is long-continued and absolute bladder rest; and kolpo-cystotomy, or the formation of a vesico-vaginal fistula is the only way in which this can be secured. This operation is best performed with the Paquelin thermo-cautery, heated to a *red* heat only, as this prevents hemorrhage and subsequent union. The opening must then be kept patent for months, by tubing or glass buttons if necessary, the bladder being daily washed out with warm demulcent fluids. It is rare that any medication is needed. In this way spasm, irritability, and irritation gradually disappear, and when this is accomplished, the fistula is sewed up and the patient cured.

A STUDY OF THE SO-CALLED TENDON-REFLEX PHENOMENA, BY W. R. GOWERS.—This paper embodies the results of observations, made upon three hundred patients, on the nature of knee-reflex (contraction of the quadriceps extensor upon striking the ligamentum patellæ, usually absent in ataxia, and excessive in lateral sclerosis) and of ankle-clonus (clonic movement at the ankle-joint from sudden dorsal flexion of the foot in lateral spinal sclerosis). Gowers regards the knee-phenomenon as a spinal reflex for the following reasons, viz.: its loss in spinal disease, its arrest by section of the crural nerve, its radiation to the other leg in animals (which he has observed in several cases in man), and, lastly, the results of a study of the movement with the myograph. By this instrument Gowers found that the interval from the tap upon the tendon to the production of the reflex varied from .09–.15 second, which corresponds to the time necessary for the production of a spinal reflex action. The question as to the origin of the afferent impulse in the tendon, or in the muscle (by sudden tension), has been left undecided by the writer, though he leans towards the latter view. The reflex is arrested by damage to the posterior nerve roots (as in locomotor ataxia), disease of the gray matter (as in muscular atrophy), and in lesions of the anterior roots (as in old meningitis); it is also lost in advanced pseudo-hypertrophic paralysis. Its occasional persistence in locomotor ataxia is connected with slight damage to the posterior root-fibres.

Forty tracings of the ankle-clonus were made, and it was found that five to seven contractions occurred per second; during the intervals the relaxation of the muscle is incomplete. A similar clonus may often be obtained from the adductor pollicis of the foot. Ankle-clonus does not appear to result unless the stimulus acts upon the muscle, since it cannot be excited by a stimulus applied to the tendon, unless its tension is increased, and the muscle therefore acted upon. Furthermore, a lateral tap on the tendon will not produce it if the tendon is supported on the other side; on the other hand, the initial contraction can be excited by tapping the muscle. Gowers does not believe ankle-clonus to be of a reflex nature, for the following reasons: he has found that in cases in which the ankle-clonus can be obtained, a tap on the anterior tibial muscles, during passive dorsal flexion, excites contraction in the calf muscles, which does not occur when the tibia is tapped, and so cannot be the result of increased tension. The interval between the tap and the contraction was found to be only .03–.04 second, and therefore insufficient for conduction to and from the cord; the stimulation of the muscle must therefore be direct. Other measurements show that in lateral sclerosis the interval between the tap on the tendo-Achilles and the resulting contraction is .025–.04 second, quite insufficient for a reflex. But the extreme irritability

to local stimulation, excited by tension, may be reflex. Tension on muscular fibres causes an afferent impression, and traces of the clonus show that the irritability is not developed instantly on the tension being put on, but after a period long enough for a reflex. Hence we understand why, though local in its nature, it occurs in spinal sclerosis.

The intervals between the contractions of the knee-clonus bear the same ratio to those of the ankle-clonus as does the interval between the tap and isolated contraction of the knee-reflex to the interval between the tap on the Achilles-tendon and the calf contraction. Hence each contraction in the knee-clonus is probably reflex, excited by the sudden tension of the muscle from the effect of the preceding contraction. In the calf and great-toe muscles the sequence of tension and contraction occurs at each step in walking, and a reflex between the two is probably acquired in the act of learning to walk. A reflex relation between tension and contraction probably plays an important part in the co-ordination of often-repeated movements, and its loss may be part of the pathological state in locomotor ataxia. The ataxic and the child learning to walk may thus be similar in this respect. If this view of ankle-clonus be correct, it should also be a normal phenomenon. The tracings showed that the ankle-clonus in four healthy individuals had the same uniformity and time as in disease.—*Lancet*, Feb. 1, 1879.

Disease of the Spinal Accessory Nerve, by Dr. Althaus.—The patient was a married lady, æt. 53 years, in whom incessant spasm of the left sterno-mastoid and trapezius muscles had come on, apparently from anxiety. Muscular rest was only obtained during sleep. The patient was unable to follow her usual occupation, and the general health suffered. Treatment consisted in the application of the voltaic current to the affected nerve, the internal use of bromide of potassium, cannabis indica, and belladonna, subcutaneous injection of arsenic and morphia, and external use of chloroform liniment: this treatment was ineffectual, although some temporary relief was obtained. Dr. Althaus had found treatment unsuccessful in other cases which had come under his notice; he suggested stretching of the spinal accessory, in obstinate cases, in which the patient was determined to seek relief. Dr. Poore, in his work on electricity, records a case which he believes was cured by galvanism. In one case a portion of the spinal accessory nerve was excised by Mr. Rivington. The sterno-mastoid was set at rest, and the head assumed its normal position, but the patient unfortunately died from septicæmia.—*Trans. Clinical Society of London*, Jan. 24, 1879.

Spinal Cord from a Case of Infantile Paralysis—Dr. F. Taylor.—A child, æt. 3 years, had suffered from infantile paralysis involving the left leg from the age of fifteen months. The patient died of broncho-pneumonia. Post-mortem: The muscles of the left leg were extremely pale and of a soft consistence. A transverse section through the lumbar region of the cord showed a slight diminution in size on the left side, the left anterior roots of the lumbar nerves being also smaller. Microscopically, it was found that there was almost complete absence of motor ganglion-cells in the left anterior horn; the large groups normally present in the centre and outer border were entirely absent. A few cells remained in front, but they were small, with few processes, and pale in color. The basis-substance of the gray matter presented a uniform, felt-like appearance, from a close matting together of very fine fibres. The vessels, especially the capillaries, were much less numerous than in health. The antero-lateral column near the gray matter was much denser than normal, the nerve-tubes smaller, and the connective tissue bands more abundant. The anterior nerve-roots were mainly composed of white fibrous tissue. They contained a few nerve-fibres, but only about half the size of those seen on the right side.

Although there had been no palpable weakness in the right leg, yet the right anterior cornu contained too few ganglion-cells as compared with a healthy cord.—*London Path. Soc.*, *Feb.* 4, 1879.

A Vegetable Peptone-Albumen Solution for the Use of the Sick.—Dr. Franz Penzoldt, of Erlangen, prepares from pea-flour, by means of pepsine and salicylic acid, a vegetable peptone solution which he has found by clinical experience to possess great practical value. He recommends it as a supplement to, not as a substitute for, Leube's meat-solution, over which, however, it possesses the advantages of being much less costly and less troublesome to prepare, and of being very agreeable to the taste. The method of preparation is very simple: 8 oz. of finely powdered pea-flour, one quart of water, 15 grains of pure salicylic acid, and 7½ grains of pepsine (it is most important that this last should be of an excellent quality) are thoroughly mixed together, and then left in a warm place (not above 100° F.) for twenty-four hours, during which time the mixture must be frequently stirred. It is then filtered through thick linen, which retains the starch, and the peptone-albumen solution is obtained. It has the appearance of pea-soup, and a delicately sweetish taste. The salicylic acid was at first added, in Dr. Penzoldt's preliminary experiments, to prevent the fermentation that sometimes occurred; but he soon found that it could be substituted for the hydrochloric acid, as it possessed fully as much, and perhaps more, digestive activity.

Before the solution is used it should be gently heated over a water-bath, and at the same time it may be reduced somewhat in volume, so that only enough to fill two soup-plates, a sufficient quantity for one day, remains. In warming, a portion of the albumen separates in the form of small flocculi, and a thin, mechanically unirritating pap is formed, which contains the peptones in solution. Salt must be added to it in proper quantities, and it may be flavored to taste with root and fruit extracts, Liebig's extract, etc. Dr. Penzoldt reports several cases in which this solution acted very satisfactorily, among them being some cases of ulcer and catarrh of the stomach, and one each of dysentery and diabetes. In all the cases it was well borne, and the patients took it willingly, and improved on it. It seems to be applicable more especially in cases of gastric ulcer and of chronic catarrh, dilatation, and carcinoma of the stomach, but also in cases of chronic catarrh of the intestines, dysentery, convalescence from typhoid fever, anæmic conditions with weak digestive powers, diabetes, etc.

The same solution may be employed as a nutritive enema; only in its preparation for this purpose the pancreatic ferment must be substituted for the pepsine. The following is the formula for it: 8 oz. of pea-meal, 1 pint of water, 15 grs. of salicylic acid, and 10 drops or more of pancreatine-glycerine; mix well, and allow it to stand for several hours to a day in an ordinary temperature. During this time some peptonization takes place, but no sugar is formed. The fluid is then simply poured off, a little of the meal being allowed to go with it, and the nutritive

enema is ready. There will be about enough for two clysters, which may be administered with any ordinary syringe. In the rectum more peptones and some sugar are formed, and in favorable cases are entirely absorbed. The injection is, as a rule, well retained. One patient, a phthisical man, retained it for four hours, and asserted that he experienced a feeling of contentment after it. After four hours he passed some feculent masses, in which no peptone-reaction could be demonstrated, although the injected solution presented this reaction very distinctly.—*Deutsche Med. Wochen.*, Nos. 33 and 34, 1878.

Partial Excision of the Descending Colon for the Extirpation of a Tumor.—Prof. Gussenbauer was recently consulted by a man who had presented for a week all the symptoms of a complete intestinal obstruction. He could take no nourishment, and suffered from intense pain, eructations, and incessant hiccough. Injections and catheterization showed that the obstruction was seated in the descending colon, and manual exploration by Simon's method revealed a tumor as large as a fist, almost completely obliterating the colon, and adherent to the small intestines and the mesentery. Despite the unpromising nature of the case, Prof. Gussenbauer determined to extirpate the neoplasm. He made an incision in the linea alba, and another running outward towards the lumbar region, punctured the coils of intestine, and got down to the tumor, which he dissected out with the scissors and his fingers. In this manœuvre the small intestine was opened, but the wound was at once closed with a catgut suture. Finally the large intestine burst open, and its contents escaped into the peritoneum. The operator then at once excised a segment of the colon, including all of the tumor he had been able to dissect off, and united the two ends of the gut by sutures. The peritoneum was then carefully cleansed, and the wounds closed. It is perhaps unnecessary to add that the patient only survived the operation a few hours.

A similar operation was performed many years ago by Reybard (*Gazette Méd. de Paris*, 1844). His patient recovered in thirty-eight days, but died ten months later of a recurrence of the tumor.—*Lyon Médical*, Jan. 26th.

Supra-orbital Tic Cured by an Injection of Chloroform.—In this case from six to twelve drops of chloroform were injected into the upper eyelid, the point of the needle being directed toward the supra-orbital foramen. The operation was followed by severe pain, which was succeeded by insensibility of the entire region. A tumefaction of the region was also produced, which was replaced by an induration that persisted for several days. In spite of the obstinacy of the affection, a single injection gave relief for several months.—*La France Médicale*, Dec. 11, 1878.

On the Selection of an Operation for Stone in the Bladder.—In an article upon this subject, Mr. Teevan lays stress upon the advantages to be derived from first crushing the stone and then removing the fragments through an incision, as for external urethrotomy. By this means he claims to avoid the high mortality of lithotomy, and the intractable cystitis so often induced by the repeated manipulations of lithotrity. After reviewing the several operations and their applicability to different circumstances, he sums up his conclusions as follows: 1. Lateral lithotomy is specially indicated for the removal of all stones from males under puberty. 2. All calculi in men ought, if possible, to be crushed. 3. Stones in the border-land, between lithotomy and lithotrity, may well be disposed of by lithotrity and external urethrotomy. 4. Calculi within the legitimate range of lithotrity, occurring in patients suffering from some complication which precludes crushing, are best dealt with by lithotrity, followed immediately by external urethrotomy, in order to remove the whole stone at one sitting. 5. All calculi not exceeding one inch in the longer diameter ought to be crushed. 6. Phosphatic stones up to one inch and a half in the longer diameter may be crushed. 7. Lateral lithotrity is specially indicated for the removal of calculi varying from one and a half inches to two and a half inches in their longer diameter. 8. Bilateral lithotomy is well adapted for the extraction of stones measuring from two and a half inches to three and a half inches in their shorter diameter. 9. The recto-vesical operation affords the most room for the removal of very large calculi, and is probably a safer method than supra-pubic lithotomy for such cases. 10. The median operation is only adapted for those cases in which lithotrity has failed, and the immediate removal of the fragments is required. A similar remark applies also to the medio-lateral method. 11. Small stones in females may be best extracted by forcible dilatation. If large they had better be crushed, the female bladder and urethra being well adapted for performing lithotrity.—*The Medical Press and Circular*, Jan. 8, 1879.

Osseous Union in Fracture of Patella.—Mr. Wheeler, of Dublin, reports an interesting case of fractured patella in which bony union is claimed to have taken place. Two years after the accident the patient died of phthisis, and Mr. Wheeler was fortunate enough to secure the specimen. This was submitted to Prof. Macalister for examination, who reported as follows: "I have macerated and examined the patella you sent me. Having cut it longitudinally, I find it to be bony throughout. The median half I have cleaned, and removed from its back the articular cartilage. It is a perfectly continuous bone, and shows a ridge of new bony matter across its articular face. The lateral half I have only slightly cleaned, but the union in it is very distinct and unmistakable. The sulcus at the upper and outer angle was filled by a mass of fibro-cartilage." This is one out of four cases which Mr. Wheeler has treated by his splint; the clinical results in the other three cases have been entirely satisfactory, and he feels confident of bony union in all. Mr. Butcher has used the splint three times, and confirms the advantages claimed for it. The apparatus consists of a box splint for securing the leg, which may be elevated or lowered at pleasure, and two metal plates, softly padded, secured, one above and one below the patella, by leathern straps. These plates are approximated by means of a chain and windlass, and maintain the fragments in perfect juxtaposition. —*The Medical Press and Circular*, Jan. 8, 1879.

Filariæ and Leprosy.—Mr. T. Spencer Cobbold reports a case of leprosy, related to him by Dr. Bancroft, of the Brisbane Hospital, in which filariæ were found in the blood. The patient was a native of England, had been in the colony twenty-five years, and had been in the habit of using well- and swamp-water. Dr. Bancroft adds that he has re-examined the blood of two patients who formerly had filariæ in connection with abscesses of the arm; their blood is now free from hæmatozoa.—*The Lancet*, February 1.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 22, 1879.

THE PROPHYLAXIS OF SCARLET FEVER.

THE current medical literature of the past year or two shows a very marked increase in the attention that is being given to the prevention of scarlatina. It may be well to inquire whether amongst the many new drugs suggested, and new measures advised, there has been anything discovered of real value in providing immunity from this most destructive of the infectious diseases.

Scarlet fever is a purely contagious disease, but although this simplifies the question of prophylaxis, it does not make it an easy one; for the contagious principle has certain peculiarities which make it extremely difficult to discover whether, while making our most energetic attacks, we have really been influencing it at all. The contagion is not very volatile, it disseminates itself slowly, it has a most tenacious vitality, and it fastens itself only upon those persons who are predisposed to its influence, leaving others unharmed in spite of the fullest exposure. Thus, while its sluggish movements allow us time for various preventive measures, its vitality often sets these at naught, and its idiosyncrasies of attachment disturb all calculations in regard to prophylactic drugs.

Methods of prevention apply to communities and to the individual. In regard to the first, much has been done by various Boards of Health. These measures, however, after all cannot and do not prevent epidemics, but only lessen their extent. Scarlet fever is now endemic in all large cities, and its means of propagation are so numerous that even if once stamped out, no practicable quarantine could keep it away. All that can be done in this direction, therefore, is to make proper regulations concerning public schools and public conveyances, and to provide for proper quarantining and disinfection where cases have occurred. Such measures have been carried out in a number of cities and States. That they do not accomplish all that could be desired may be inferred from the fact that we have had an extensive and severe epidemic in this city during the past winter. This has occurred in spite of sanitary regulations, and we can only have the satisfaction of knowing that it would surely have been worse without them.

Since State medicine, so far as we now know, can but partially affect scarlatina, in the way of prevention, attention is naturally turned to the discovery of such special drugs and measures as the individual physician can use for this purpose. And we here find a long list of preventive remedies, most of them recent, which have been urged with more or less confidence and enthusiasm upon the profession.

The very considerable success which attended the inoculations of small-pox led to a trial of a similar method with scarlatina. Some half-dozen reports of inoculations have been made, but only one experimenter has had favorable results, and the evidence on the whole goes to show that inoculation is not a justifiable measure.

The oldest of reputed prophylactics is belladonna. The fact that even now one occasionally meets reputable physicians who advocate its use testifies rather less after all to their scanty judgment than to the inscrutable ways of the scarlatinous poison. It will be found, however, that as a general thing confidence in belladonna is in inverse proportion to the extent of the physician's experience, and it is quite time now that we cease to paralyze the accommodation and impair the deglutition of patients on the unsubstantial ground that it will not do any harm and may do some good.

Since the popularity of the germ theory became established, children have been saturated with all kinds of anti-fermentatives, in the hope of preventing or curing the disease. Cases are reported where salicylic acid has apparently acted as a prophylactic. The hyposulphites have had the same indorsement. Carbolic acid has been much extolled. From two sources there have recently been strong recommendations of the sulpho-carbolate of soda. Acting upon a modified view of the germ theory, ozonic ether has been given internally and externally with great success, both in prevention and treatment. Upon nearly the same grounds chlorate of potash and vegetable acids are suggested as likely to be very efficacious. Strongly acid gargles, we have been assured, will kill the germ at the very threshold and prevent its infecting the system. Finally there has been advocated, on empirical grounds, a purely milk diet, and a series of cases to show its prophylactic value has been published.

We mention these various methods, chiefly because we believe that they only show how easily a drug may appear potent to an imagination that has been stimulated by alluring hypotheses. We confess to the greatest incredulity in regard to the efficacy of any of them. Indeed, the logic which leads to the adminis-

tration of any known anti-fermentative as a prophylactic has too unstable a ground to deserve much respect. In the first place, the question of what is the contagious principle of scarlatina has not yet got beyond the domain of probabilities. We can say, with much positiveness, to be sure, that it is no visible form of bacterium or micrococcus, and we can, perhaps, infer from analogy that it is a particulate something too small to be detected by the microscope, that it is albuminoid in composition and multiplies at the expense of physiological processes. Whether it is living or dead, whether it is the degenerated protoplasm of man or the modified protoplasm of vegetable, whether it acts in conjunction with bacteria or feeds directly upon the tissues, all these questions are much beyond the pathologist as yet. But, in any case, it is very hard to see how anti-fermentatives can reach this virus. If it is dead, we certainly need not give such drugs to kill it; if it is living, there is no evidence or probability that the system can be so saturated as to destroy such infecting protoplasm and not the living matter of the tissues at the same time. In the blood of persons deafened with quinine or salicylic acid the bacterium disports himself with as much activity as elsewhere, and the amœboid movement of the white blood-corpuscles can still be easily seen. It is a fact, to be sure, that there are drugs, like quinine, which affect the size and internal movements of the blood-globules, but we cannot infer from this that there are prophylactic germicides, which will not prove to be homicides at the same time. The idea then, we repeat, that anti-fermentatives will be efficacious, though not impossible, is inherently improbable, while the idiosyncrasy of the scarlet-fever poison will oblige observers to collect a vast number of cases in order to prove the prophylactic power of any particular drug. We do not wish to discourage experimentation, but it should be remembered that therapeutics are not advanced by continually announcing on the basis of a dozen cases new powers in drugs which further experience at once disproves.

Since there is then no internal medication on which we can rely to prevent the disease, we must turn to external methods; and, after all, much may be accomplished by these. Amongst them, complete isolation stands first, and is the only sure preventive. Next to this comes plenty of fresh air, and finally the disinfectants, of which heat and sulphurous acid are perhaps, at present, most popular. Carbolic acid, though once very much praised, does not seem to be so efficacious against this disease. There is very considerable evidence that greasing the body, perhaps with a disinfectant added, during the desquamative periods, together with warm baths, is of great value in preventing extension of the disease, since by this means so much of the infected epidermis is safely removed.

Particulars of this kind, however, are easily accessible, and we need not enter into them further. Although we cannot yet root out endemic scarlet fever, nor avoid its epidemic occurrence, we can, at least, prevent its spreading through families and to many new localities, where formerly it could ravage at will.

CONCERNING PEDESTRIANISM.

THE results of the recent walking match are quite remarkable as showing the endurance of the human frame under prolonged and severe muscular exercise.

During the race the public has been treated to all the usual rates of progression, the long stride, the short step, the dog-trot, and the rapid run. It has been proved that short lower extremities are best for a long race, that an easy trot is more endurable than even a long walking stride, and that long legs are to be trusted only in comparatively short journeys. Bodies compactly built and even below the medium size have been shown to stand fatigue better than those of more commanding proportions and greater height. These facts bear somewhat upon the general laws relating to the vital force possessed by different individuals as calculated by the conformation of the body. Those who have made a study of anthropology have given the greatest vitality and the largest amount of endurance to the large-chested, long-bodied, undersized persons.

Although every one is ready to applaud the achievements of men who perform their tasks so heroically, the conclusion is nevertheless irresistible that there is the greatest possible danger of straining their vital forces beyond repair. In fact, the latter condition seems a special danger in races upon which heavy sums are wagered, and upon which great sporting interests depend. From such a point of view, these performances prove only what can be endured in the shape of fatigue, and still allow the competitor to walk off the track.

The moral effect of this race will, doubtless, be to develop a mania for pedestrianism. If the latter is kept within the limits consistent with health, the recent excitement over the great match will not have been in vain. At all events, the standard prescription of the physician will probably not meet with as much opposition as formerly.

Aside from popularizing pedestrianism, the match has afforded an excellent opportunity for testing the theories of muscular force in their relations to food, animal heat, excretion, etc.

In the case of Weston many interesting and instructive facts were obtained, both here and in England. If any of the experiments were repeated during the recent contests, some important additional facts may be obtained, which may help to settle some doubtful points in nutrition and excretion. We have reason to believe, however, that in view of other interests which were considered paramount to scientific inquiry, no detailed or trustworthy observations were made.

NEW JOURNALS, AND "A WANT LONG FELT."

WHENEVER the projector of a new medical periodical says that he is to supply "a want long felt," we take the chances on his being mistaken. Not that any one who starts such a legitimate enterprise does not deserve success, but simply that he will not, as a rule, obtain it. This is a practical view of the question for which we have often been blamed, but really for no other cause than one would censure a physician for an unfavorable prognosis in any desperate case. It is true medical men should take every medical journal that is printed for them, but, unfortunately, they will not. The kind interest taken in their welfare by medical editors is not appreciated. This is the fault of the subscribers, of course, and not of the journals. We object to this disinterested spirit of benevolence on the part of new journals, and consequently protest against the casting of pearls before swine. The profession generally does not deserve to have any such want supplied, and should be made to suffer. One-sided benevolence, in the long run, is fatal to the enthusiasm of the benefactor, and the sooner the subscribers know it the better. We are impelled to make these remarks by way of introducing the following letter from our friend Dr. J. H. Pooley. The Ohio Medical Journal was well managed editorially, and was calculated to supply any real want felt there for a good journal, but, as Dr. Pooley informs us, a miscalculation was made. He very significantly says:

"The Ohio Medical and Surgical Journal has suspended. It was published to supply 'a want long felt,' but that want having been succeeded by another and more imperative one,—paying subscribers,—the journal ceases to exist. We request the friends of the journal not to aggravate our grief by letters of condolence or expressions of sympathy, but kindly leave us to suffer in silence."

Without wishing to intrude upon private grief we would simply suggest, by way of revenge on the profession in Columbus, that two new medical journals should be forced upon them in place of the one just deceased.

STATE BOARDS OF HEALTH.

THE receipt of the first annual report of the Illinois State Board of Health, and of the first annual address to the Connecticut State Board of Health is a reminder of the rapidity with which State medicine is being appreciated and introduced. Ten years ago there was hardly a country which possessed a well-organized system of public hygiene. Now, such systems exist in all the leading nations of Europe, and they are rapidly extending through our various States. In 1869 the first State Board of Health was established in Massachusetts. In 1877 such organizations had been formed in fifteen States. In all cases they have done good work, though often hampered by lack of funds, and in some cases, as in Georgia, temporarily suspended by the exceeding thriftiness of the Legislature. The great value of State medicine, however, is steadily becoming recognized by thoughtful men, and Congress also is likely, in time, to be properly impressed with its importance.

In regard to particular boards, we think that that of Illinois deserves some special mention; for its establishment not only marked the extension of public hygiene westward, but its composition and function contain several novel features. The board is composed of representatives of the different schools of medicine. By law, every person who wishes to practise medicine in Illinois must obtain a license from this board, in order to do which he must either show a diploma from a medical college in good standing, or must pass an examination before the board. The statistics given in the first annual report both show that some law like this was needed and that it has acted very efficiently. There were 3,600 non-graduates practising in the State when the law went into effect; 1,400 of these have since left the State or quit practice; the rest have either secured diplomas, or passed the necessary examination, or have contrived to evade the law. Another result of this law is a great exodus of itinerant quacks, abortionists, etc., from the State. Such persons are obliged to pay one hundred dollars a month for the privilege of advertising themselves and their cures. According to the report of the board, the neighboring States are viewing with great interest and some alarm the effect of this purging of Illinois.

Reviews and Notices of Books.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA. Twenty-ninth Annual Session, held in Atlanta, Ga., April 17th, 18th, and 19th, 1878.

THE contents of this volume are, upon the whole, very creditable. The address of the president, DR. WM. O'DANIEL, of Bullock, is of the usual type. Among other things, Dr. O'Daniel touches upon the difficulties encountered in obtaining prompt and sufficient remuneration for medical services from a certain class of well-to-do patients, who, it seems, are notoriously neglectful of their obligations in this respect. This he attributes mainly to "indiscretion and a want of thorough organization in the profession," and advises that adequate compensation be exacted from those able to pay, and that when such compensation is refused or neglected, further services should be withheld; and would go still farther, and have these facts made known to the members of the profession interested, and that, after such notice, all those who continue to render services to such persons should be considered violators of ethical law, and be denied professional recognition.

The profession of Georgia are not alone in this particular, and it is to be hoped some plan can be found for remedying this evil, of which others outside of Georgia may likewise have the benefit.

Dr. O'Daniel cordially endorses the work done by

the State Board of Health, and urges the necessity of a committee to memorialize the next General Assembly for an increased appropriation and for sufficient powers to make the operation of the Board more efficient. He has not given the subject too much importance, and it is to be hoped that the committee appointed under the resolution of Dr. A. W. Griggs will have the desired effect.

The annual oration by the late Dr. Wm. R. Burgess, of Macon, Ga., is a well written and characteristically conscientious paper. He dwells at length upon "Hasty, Unwise, and Unfortunate Medical Literature," discountenances crude theories and isolated cases, and warns the inexperienced physician from a too ready acceptance of many hasty and premature publications of the medical press.

Dr. B. R. Dostin, of Early County, read a paper on "Amputation of the Leg for Necrosed Tibia of Thirty-four Years' Standing."

Dr. T. F. Walker, of Cochran, reports a case of "Abnormal Conception," and one of "Eclampsia," and Dr. George J. Grimes, of Columbus, remarks upon a case of "Tubercular Meningitis."

The paper of Dr. J. C. Le Hondy, of Savannah, is a most valuable contribution upon the subject of "Yellow Fever." He appends a tabulated statement in detail of one hundred and seventy-one cases of yellow fever treated by him in the epidemic which prevailed in the city of Savannah in 1876. It is well worthy of perusal by those interested in the subject.

The paper of Dr. James B. Baird, of Atlanta, upon "Neuralgia and its Modern Therapeusis," is well written, and his conclusions, in the main, sound.

Dr. A. W. Calhoun, of Atlanta, gave a "Report of One Hundred and Thirty Operations for Strabismus" in his own practice, and concludes by saying that "the absence of all danger, and the great benefits to be gained by the operation, both in a cosmic and visual point of view, should induce every one affected with strabismus to submit to it without delay."

The "Report of the Section on Gynæcology," by Dr. A. W. Griggs, the paper of Dr. S. H. Stout, upon "Psoriasis Non-Syphilitica," and the considerations of Dr. T. S. Powell upon "The True Physician," possess some interest.

The article, however, by Dr. V. H. Taliaferro, of Atlanta, upon "The Application of Pressure in Diseases of the Uterus," is extremely interesting, and should be read by every one. The wide range of utility which the principle advocated evidently possesses, and the simplicity of the method, are certainly strong recommendations in its favor. The use of sheep's wool instead of cotton wool for such purposes, is, no doubt, an improvement.

The "Pith of the Dried Cornstalk as a Uterine Tent" is the subject of Dr. W. T. Goldsmith's paper. He therein reviews the subject of uterine tents. Whether or not it possesses equal advantages with sponge, sea-tangle, or tupelo, as he claims, still remains to be tested; still it is likely to become a convenient material to many practitioners who live in remote parts of the country.

The different reports upon the sections on surgery, by Dr. A. A. Smith, from third district, and of Dr. Jno. Thad. Johnson, from fifth district, give opportunity for the consideration of cases of "Incised Wound of the Abdomen," "Hemorrhoids," "Perityphlitic Abscess," "Retention of Urine from an Unusual Form of Stricture," "The True Value of Caustics in the Treatment of Venereal Ulcers," "Gunshot Wound of the Head," "Adherent Prepuce," "Rupture of the Uterus," and "Death from Cockle-Burr remaining in the Lung for Twelve Years."

A paper was contributed by Dr. Wm. A. Leone, of Atlanta, upon the "Diagnostic Value of the Soft Palate, as compared with the Tongue in Certain Pathological Conditions."

Dr. C. B. Leitner, of Columbus, calls attention to a new dressing for wounds in the form of a "Tar Bandage," and Dr. J. B. Roberts, of Sandusville, cites an "Obstinate Case of Hiccough."

These various articles comprise the medical subjects offered for consideration, and are certainly an earnest of much good work.

It is to be regretted, however, that so little discussion is usually had at these meetings upon medical subjects.

There is but one way to overcome the usual difficulties of want of time, etc., in this respect, and that is to divide into sections for the discussion of the various subjects, and then report in full session. It would be well for the Medical Association of Georgia in the future to adopt some such plan, thereby saving time and allowing a general expression of opinion; as it is, the papers are generally read by title, and are then referred to Committee on Publication.

The meeting seems to have been well attended and harmonious.

Compared with previous transactions, this one is an improvement. For the work done, congratulations are offered, and we wish the Association a profitable and pleasant meeting at its next session, which convenes April, 1879, at Rome, the home of Dr. Battey. The following is a list of officers for the present year: *President*, John Thad. Johnson; *Vice-Presidents*, Wm. F. Holh, Thomas H. Kenan; *Secretary*, Jas. B. Baird; *Treasurer*, Wm. R. Burgess; *Orator*, E. H. Richardson.

New and Original Theories of the Great Physical Forces. By Henry Raymond Rogers, M.D. 12mo., pp. 107. Published by the Author. Trow's Printing and Bookbinding Co., New York, 1878.

This work is devoted to the exposition of a new philosophy, the key-note of which is contained in this extract from p. 19: "Let our philosophers but accept the idea that the *sun rouses the earth into action through their mutual relationships; that the two interchange good offices and essential services, rather than that the sun is wholly independent, and simply gives outright, as philosophy has hitherto conceived*, and we think the dawn of a better day has come." The author demonstrates his views clearly, and the argument stands in his favor. We recommend all who are interested in this problem to read this interesting and instructive book.

Proceedings of Kings County Medical Society, Dec., 1878.

The most interesting paper in this volume was one in connection with the presentation of the fissured sternum of the late Dr. Groux. This fissure was two inches wide. It was not an arrest of osseous development but a central fissure, and looking through it within the chest a pulsating tumor, the heart, could be seen. Dr. Groux had the power of stopping the beating of his heart at will, it is said. The question of the possibility of this power was discussed. Both Dalton and Flint, Jr., deny that such power has been proved to exist. Dr. Groux, in some cases, at least, only stopped the pulse at the wrist. The very notable case of Col. Townshend occurred 150 years ago, and was only observed once. J. Milner Fothergill, however, asserts that there is an eminent English physiologist who has this power.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN, delivered at the Faculté de Médecine, Paris, 1875. By J. M. CHARCOT, edited by Bourneville, and translated by Edward P. Fowler, M.D., of New York. 8vo, pp. 133. Illustrations. New York: William Wood & Co., 1878.

THE LOCALIZATION OF CEREBRAL DISEASE, being the Gulstonian Lectures of the Royal College of Physicians for 1878. By DAVID FERRIER, M.D., F.R.S., etc. Demy 8vo, pp. 142, with illustrations. New York: G. P. Putnam's Sons, 1879.

THESE are two newly issued, small, but valuable books. The former will be welcomed in its English dress by the readers in this country, since anything from the pen or lips of M. Charcot is at once treasured by the profession. This author has labored so assiduously in the field of cerebral localization, both alone and in collaboration with M. Pitres and others, that he is in a position to speak *ex cathedrâ*. Our author exposes the anatomico-histological researches of Duret, Foville, Huguenin, Meynert, and others, as well as relates his own pathological observations, and those of others, bearing upon the subject under consideration. The subject matter is excellently arranged, and the text well illustrated by woodcuts. Dr. Fowler deserves our thanks for his very satisfactory and classical translation.

II. Ferrier's work is intended as a supplement to his "Functions of the Brain," wherein he detailed his experiments upon monkeys and other animals. The volume in hand deals in a well-arranged manner with the conclusions to be drawn from the author's experiments on animals as they relate to human physiology and pathology. Each special "centre" is described, mapped out, and illustrated by pathological cases and drawings. The views of Brown-Séquard, Sauce-rotte, Bouillaud, Hughlings-Jackson, and others are reviewed and criticised. While the author has clearly localized the various divisions of the "motor tract" as the result of his researches in comparative anatomy, he has drawn largely from the observations of Franck and Pitres, Charcot, and a host of others for his support from pathology. In comparing these two works we may say that M. Charcot's book is principally devoted to the study of the minute anatomy of the brain—the circulation, the course and relation of the fibres, cells, etc.—and to the physiology of the great cerebral centres. Nevertheless, the topography of the convolutions is not omitted. In Ferrier's book, however, we are treated to a complete exposition of the physiology of the "motor area," and to this alone. These books are the complement of each other. Possessed of both, the student of cerebral physiology will have the means at hand for a thorough understanding of "localizations," a difficult study.

IS PHTHISIS PULMONALIS CONTAGIOUS, AND DOES IT BELONG TO THE ZYMOTIC GROUP? By W. H. WEBB, M.D. Phila., 1878.

THE aim of this monograph is to prove that both the above questions should be answered in the affirmative. The author has spent much time and research in fortifying his position, which he sustains by clinical testimony and analogical reasoning. Nearly fifty prominent physicians are cited as inclining to the view that phthisis may be contagious. Many strongly illustrative cases are given, and such facts as the absence of phthisis from the South Sea Islanders and North American Indians, before their association with Europeans, are mentioned. Altogether the author makes out a very good case. We believe it to be pretty clearly shown from clinical study and recent laboratory experiments that phthisis *may* be in a certain sense contagious. That it always is, however, or that it is a zymotic disease, can hardly be proved. But the fact of a possible contagiousness is an important one to bear in mind, and thanks are due Dr. Webb for so forcibly calling attention to the matter.

A PRACTICAL MANUAL OF THE DISEASES OF CHILDREN, with a Formulary. By EDWARD ELLIS, M.D., late Senior Physician to the Victoria Hospital for Sick Children; late Physician to the Samaritan Hospital for Women and Children; and formerly Obstetric Physician's Assistant to University College Hospital. Third edition. Pp. 213. New York: William Wood & Co., 1879.

DR. ELLIS'S Manual on Diseases of Children has been issued by Messrs. William Wood & Co. as the second volume of their "Library of Standard Medical Authors." For a ready reference book it is not too much to say of it that we do not know of a book that has so much condensed in 213 pages, and yet not omitting anything essential, as the one under review. It makes no claim of being a systematic work, and therefore omits all controversial questions. Of course, in a work of this kind, there are some points which might have been more fully mentioned. This criticism we think is applicable to the notice of the diseases of the kidney, in which no mention is made of anything but "acute desquamative nephritis." About 40 pages are devoted to "general therapeutical hints and formulary." The volume has a very full index. It is printed on good paper, is well got up, and does credit to the publishers. We notice that the color of the binding comes off and is rather a blemish.

ELEMENTS OF COMPARATIVE ANATOMY. By CARL GEGENBAUR, Professor of Anatomy, and Director of the Anatomical Institute at Heidelberg. Translated by F. Jeffrey Bell, B.A., and translation revised, etc., by E. RAY LANKESTER, M.A., F.R.S., etc. 8vo, pp. 624. London: Macmillan.

THE present volume, although a treatise in itself, is an abridgment of the author's larger volume, which has become so deservedly popular with students of anatomy. The general arrangement of the book is systematic and treats of the subject under the general heads of Protozoa, Cœlenterata, Vermes, Echinoderma, Arthopoda, Brachiopoda, Mollusca, Tunicata, and Vertebrata. Each of these subdivisions are exhaustively treated in detail, and the salient points of differences clearly brought out. In fact, upon the latter method of treatment of the subject rests the real excellence of the work, and makes it a most desirable and valuable text-book for the student.

A MANUAL FOR THE PRACTICE OF SURGERY. By THOMAS BRYANT, F.R.C.S., etc. Second American from third revised and enlarged English edition. 8vo, pp. 945. Philadelphia: H. C. Lea, 1879.

THE work before us is the American reprint of the last London edition, and has the advantage over the latter in being of more convenient size, and in being compressed into one volume. The author has rewritten the greater part of the work, and has succeeded, in the amount of new matter added, in making it markedly distinctive from previous editions. A few extra pages have been added, and also a few new illustrations introduced. The publishers have presented the work in a creditable style. As a concise and practical manual of British surgery it is perhaps without an equal, and will doubtless always be a favorite text-book with the student and practitioner.

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, Feb. 24, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

PRIMARY ACUTE PURULENT INFLAMMATION OF THE MIDDLE EAR.

DR. H. KNAPP read an elaborate paper on the above subject, based on the statistics of 2,527 cases of ear disease seen private, and 6,102 cases seen in hospital practice. Among the former acute perforative otitis media occurred in 182, among the latter in 382 cases, that is, 6.53 per cent. of the whole number. He presented the statistics which he had collected of 27,359 ear patients treated at different institutions in America, and 6,562 patients treated in European institutions. The former showed the occurrence of perforative otitis med. in 6.08 per cent., the latter in 6.27 per cent. of the cases; almost the same proportion in both. Dr. Knapp had anticipated that the rapid changes of the American climate produced a greater number of cases of acute ear disease than the more equable climate of Europe.

As to the *occurrence* of acute purulent otit. med., he had prepared statistical tables, to show the relative frequency of the disease at the different ages of life and different months of the year.

Childhood (1st to 10th year) showed the greatest number, *i. e.*, 32.42 per cent. 62 per cent. of the cases occurred in the winter months; 38 per cent. in the summer months. In 85.71 per cent. of the cases only one ear was affected with perforative acute otitis; in 14.29 per cent. both ears.

ETIOLOGY.

The causes of the disease were given as follows:

Pharyngitis and rhino-pharyngitis	37.36 per cent.
Coryza	26.37 "
Sea-bathing	8.79 "
Scarlet fever	7.14 "

Then followed, with a smaller percentage, diphtheria, measles, pneumonia, improper use of the nasal douche, cold water and alcohol accidentally entering the ear, eczema of the auricle, mumps, and varioloid.

The dangers of sea-bathing were pointed out under two heads: local and general. Local, by the low temperature, the large quantity of salt, the impulse and contamination of sea-water. General, by the great cooling of the whole body, the cold and damp sea-air, and the dampness of the bed linen and covers. Several interesting cases of the disease, caused by diphtheria and the improper use of the nasal douche, were reported.

SYMPTOMATOLOGY.

Not entering into the whole symptomatology of the disease, Dr. Knapp presented detailed statements as to the beginning and duration of the otorrhœa and the termination of the disease. Concerning the latter, the following were the results obtained:

Perfect recovery with good hearing took place in 64.83 per cent. of the cases.

Discontinued treatment, when convalescent	7.69 p.c.
Transition in chronic aural catarrh	3.85 "
" " otorrhœa	1.39 "
Seen only once	17.03 "
Death	2.19 "

It followed that *perfect recovery, at least in* 80 *per cent., was the rule in acute otit. med. pur.* The fatal cases were reported in detail.

TREATMENT.

In speaking of the treatment, Dr. Knapp laid greater stress on the necessity of *rest* than was commonly done.

He thought that in acute inflammations of small organs, rest and care were just as essential to secure a complete recovery as in that of large organs, where rest was a matter of necessity, not of choice. The bad and lasting consequences resulting from imprudence and lack of care were convincingly dwelt upon.

The *local treatment* consisted in instillations of warm water into the ear; leeches around the ear; inflation of the drum, at first cautiously through the catheter, afterward according to Politzer's method; attention to the naso-pharyngeal cavity; astringent gargles; nebulizers; posterior nares syringe; steaming of the ear when the disease had suddenly ceased and the pain continued or increased; paracentesis of the drum; opening of the mastoid process; incisions down to the bone in the meatus and behind the ear, to liberate subperiosteal collections of pus; cleansing of the ear by syringing and wiping with a dentist's cottonholder; the use of astringent injections into the ear, which in the acute period should be avoided and afterward be suited in strength to the copiousness of the discharge and the proliferation of the mucous membrane. The indications, dangers, results, and the manner of application of the different modes of treatment, were duly dwelt upon. The paper will be published *in extenso* in the forthcoming number of the *Archives of Otology*.

The paper being before the Society for discussion—

DR. D. B. ST. JOHN ROOSA remarked that he fully agreed with most of the conclusions reached by the author of the paper, and believed that that fact indicated there must be exactness in our knowledge upon this subject, because they were conclusions which had been reached by two men, who were working apart, and yet in the same department.

With reference to the question of statistics, there was a singular unanimity in those presented in Germany and in this country.

The proportion of acute suppuration of the middle ear, in one thousand cases, reported by Dr. Roosa, some years ago, was a little under three per cent. The proportion was increasing somewhat; and out of 3,173 ear cases occurring in his private practice, 102 were acute suppuration of the middle ear, one or both sides. The proportion was even greater than that; because he saw a considerable number of cases which were not recorded. Apart from statistics, he thought it was true that there was much more acute aural suppuration than either the speaker or himself knew about. For, many, if not all the cases of chronic aural catarrh, which were seen in such large numbers, were once acute cases. Besides that, earache occurred so commonly in childhood that many general practitioners never thought of reporting the fact; and nearly always those cases of earache were cases of acute aural catarrh, and often cases of acute aural suppuration. Among patients suffering from chronic aural catarrh it was a very common observation that they had been "getting deaf for several years, and finally thought it was time to see something about it," and in that way we obtained the knowledge that many cases of acute aural trouble were not seen by a physician. There were practitioners (they did not live in New York, he hoped) who absolutely ignored earache; and if they were to go into a house to prescribe for a case of

pneumonia or other disease, and were told that some member of the family was suffering from most intense pain in the ear, they would not listen to the story, much less prescribe for the case. Some of them would direct that the ear be wrapped up well with a poultice, and would tell the mother that "when the drum-head had broken Johnny would be better." But there was a great deal of acute aural disease which was recovered from very rapidly. To illustrate: he not long since saw a patient who first felt pain in the ear at about six o'clock, and at ten o'clock in the same evening the drum of the ear was very red; there was intense pain and other evidence of acute aural catarrh. A few applications of warm water from a tablespoon, without any other treatment, quieted all the symptoms. The patient slept well; and the next morning, upon examination, it was found that there was only a mere trace of redness of the membrane remaining.

With reference to the question of *rest*, he was not aware that any, who treated aural disease to any great extent, would doubt the correctness of the advice given by the author of the paper. What the author of the paper had said with regard to the *serious nature* of acute suppurative inflammation of the middle ear could not be overestimated.

With reference to paracentesis of the drum-membrane, in cases of acute catarrh of the middle ear, he thought the operation had very probably been overdone. There had been such a lethargy with reference to treatment of acute aural disease that it was necessary to insist upon operative interference in proper cases, and that had led to the opinion that otologists opened every drum-head which was reddened. But they did not do anything of the kind. The treatment of acute aural catarrh or acute aural suppuration was the simplest which could be imagined. If the ear was kept clean by the gentle use of warm water, the patient kept in bed, the pain subdued by the use of opium, and the bowels kept open, nothing, except an unwise interference, would prevent the drum-head from being restored, even when the disease had gone on to perforation.

He expressed his sympathy in the effort which the author of the paper had made to impress upon every one the importance of properly treating this important affection.

Dr. C. R. Agnew remarked that he agreed essentially with Dr. Knapp, and felt personally indebted to him for this admirable *résumé* of the subject. He did not think that Dr. Knapp would claim to start a new school of otology or to set forth views which were peculiar. They were those which were quite surely justified by the practice of all who treated diseases of the ear. We all appreciated the absolute necessity of rest, and practically that was secured because of the inability of the patient to locomote and pursue his ordinary avocation.

Dr. Agnew, however, was not quite so certain that his experience would lead him to the conclusion that rest in the supine posture was so valuable in these cases as Dr. Knapp's experience had led him to consider it to be. He had had the misfortune to have two attacks of acute inflammation of the middle ear, which, fortunately, resolved without perforation. He very well remembered the first attack, which came on about eleven o'clock at night, and the pain was so extremely severe that he found rest in the supine posture impossible, and he was obliged to rise from his bed and walk about the room. He took morphine freely, and while walking about the room, it asserted its hypnotic effect so strongly that he was obliged to lie down; but as soon as he assumed the supine position the pain returned, and he was compelled to seek the upright posture. He had, therefore, recommended patients to sit rather than lie, and he thought the effect upon the circulation was favorable to resolution of the inflammation.

With reference to local depletion, he thought the same effect upon the inflammation might be obtained by applying a single leech just within the external auditory canal, as by applying several about the ear.

With reference to the use of warm water with a syringe or spoon, he agreed with the author of the paper and the speaker who had preceded him.

He thought it probable, if called in consultation with the same gentlemen, that he should agree with reference to the evidence which was to decide the question of paracentesis, but he did not think his experience justified the assertion that, when a drum-head was bulging, it was better to make a paracentesis than to wait until the lapse of one or two days in order to see whether discharge would not take place from the Eustachian tube. He thought, however, the possible damage which might be done to the mechanism of the middle ear by matter held in the drum-cavity was much greater than any possible injury which could come from paracentesis of the drum-head, provided syringing of the external auditory canal was avoided. He felt bound to say that he had never seen mischief done to the ear by paracentesis under circumstances which Dr. Knapp had described, when the drum-head was bulging and there was threatening perforation. The analogy between certain conditions of the eye, calling for puncture of the cornea, and certain conditions of the middle ear, calling for paracentesis of the drum-head, was a good one; but, like other parallels, it must not be pushed too far. He thought the paper by Dr. Knapp would put the subject of otology upon a better basis than it had heretofore occupied.

Dr. Prout directed attention to the effect produced in the ears by sea-bathing. He thought Dr. Knapp did not dwell sufficiently upon the passage of water into the middle ear through the Eustachian tube. He believed it occasionally happened that water entered the middle ear through the Eustachian tube, especially when the person swam upon the back.

He objected to the analogy between paracentesis of the cornea for hypopyon and paracentesis of the drum-membrane in acute suppurative inflammation of the middle ear. He favored paracentesis in cases of inflammation of the middle ear, rather than paracentesis of the cornea in cases of hypopyon. If there was not sufficient fluid to cause bulging of the drum-membrane, but simple redness, paracentesis should not be performed.

For local treatment he had found a useful combination to be laudanum, glycerine, and borax water, in acute external or middle ear trouble.

Dr. Samuel Sexton thought the operation of paracentesis was now carried too far. His attention had just been drawn to a report where the operation was performed forty-five times in an institution where only thirty-seven cases of acute purulent inflammation of the middle ear were reported, and he also found, on reviewing his own cases in the New York Ear Dispensary, he had operated on one-sixth of all such cases which were there treated. Saunders, the English surgeon, who was perhaps the first to recommend the operation, over seventy years ago, drew the line for operating when the accumulation of fluid in the tympanum partook of the nature of an abscess which threatened to burst, which was a good guide after all.

Dr. Sexton expressed his surprise that greater importance had not been given in the paper to the symptom of pain. When called to these cases, his first concern was to alleviate the anguishing pain which attended them, and to allay inflammation. In a great number of acute purulent inflammations of the middle ear there would be found to exist painful inflammations of the connective tissue in the neighborhood of the tympanum. In such cases suppuration was often averted or hastened to a conclusion by maturation, under the use of calcium sulphide, and, during its use, pain was in many instances greatly alleviated. As to the use of Politzer's air-douche in these cases, Dr. Sexton was not in the habit of resorting to it, as he saw no advantage to be gained by inflating the middle ear in acute cases; and reference having been made to the increase of the acuity of hearing during the period of inflammation, he would say that he regarded the temporary improvement of hearing as secondary in importance to the relief of pain and inflammation.

Dr. A. H. Buck remarked that he had little more to say than to lay rather more stress upon the use of warm water in the beginning of acute ear trouble. He believed that early in the disease, especially in children, if the membrana tympani could be poulticed by pouring warm water into the ear with a spoon, in a great majority of cases the ear trouble could be arrested. Upon that practical point he would lay great stress. With reference to the question of paracentesis, he held the view expressed by Dr. Agnew. He believed that the harm which came from the operation, when properly performed, was small when compared with the harm which came from abstaining from its performance. The indications for the operation were so clear it seemed strange that any one should hesitate to resort to it, namely, bulging of the drum-membrane remaining after leeches, warm water, and simpler means had failed to afford relief. The pain was due to the pressure, and the incision relieved the pressure. He believed that the lack of success in the treatment of subacute and acute purulent inflammation of the middle ear was due largely to the fact that we had no more definite instructions relating to local treatment than the simple statement, use instillations of this, or that, or the other remedy. He thought the entire secret of success in treatment was found in adopting certain minute procedures. In the first place, the ear should be thoroughly cleansed, and then if instillations simply were used, the chances were that the remedy would not reach the membrane lining the middle ear, or at least reach it in very small quantities.

Dr. C. E. Hackley remarked, with reference to keeping the patient quiet, that it might seem almost impossible, but he thought those who had paid any special attention to diseases of the ear had frequently noted the difference between acute otitis media and boils occurring in the ear. Where the pain was as great in the one as in the other, the patient suffering from otitis media was inclined to keep quiet, whereas, if suffering from a boil in the ear, he was upon the constant move.

In the beginning of the disease he had seen as much relief follow snuffing warm water as from instillations into the ear. In children who could not adopt that method, he had observed decided benefit from the use of opium internally, in small doses.

With reference to etiology, he had learned, incidentally, that perforation of the drum of the ear was nearly as common in one lying-in asylum as was purulent ophthalmia in other institutions.

He believed that ear trouble following sea-bathing was frequently caused by sea-water entering the middle ear through the Eustachian tube.

Dr. O. D. Pomeroy remarked that he concurred in nearly all the statements which had been made, and added something in the way of personal experience with regard to relieving pain. He thought sufficient stress had not been laid upon measures for relieving that symptom. He had been accustomed to use warmth, perhaps more than others, and had employed dry rather than moist warmth. He was prejudiced against the use of moist warmth, because he had seen otorrhœa induced by its use. He referred to a case in which poultices had been faithfully employed in the treatment of acute otitis media, and, when they were removed, the pain soon ceased, and recovery followed without further treatment. Indian-meal, heated until browned and then put into a bag which could be fastened to the ear, was with him a favorite application. A hot brick wrapped in a napkin, or a bottle of hot water, was serviceable. For the relief of pain in the ear in small children, he had obtained good results from the use of a small quantity of black pepper wrapped in cotton and introduced into the ear; it relieved pain in a remarkable manner, and with that the inflammation.

He had been able, in his own case, to trace the attack up the Eustachian tube, and many times had been able, by applying a strong solution of nitrate of silver (60–80 grs. to the ℥ i.) to the throat, to relieve the pain and arrest the further progress of the disease.

Dr. E. Gruening referred to opening the mastoid process in cases of otitis media. He had performed the operation *seven* times—five times in chronic cases, and *twice* in acute cases. He was confident that in the acute cases he saved the lives of the patients, and from those cases felt that the indications for the procedure could be formulated.

The first patient was a man thirty years of age, who had acute otitis media from bathing. Perforation of the drum-head occurred; but, in spite of that, the inflammation spread to the mastoid cells. The skin over the process became red, there was great pain, and the process was painful upon pressure. An incision was made, and for some hours the pain was relieved. The pain returned. The incision was enlarged, and it bled freely. High fever developed, there was severe pain in the head, the patient became delirious, and had a rigor. Dr. A. H. Buck was called in consultation, and it was decided to open the mastoid process. An abscess was found, a quantity of pus escaped, complete relief followed, and the man recovered.

In the second case the indications were the same, and the operation was performed with the same result. Dr. Gruening was surprised that none of the gentlemen had mentioned the operation, especially as Dr. Knapp had said that he was not in favor of it.

Dr. Pinckney alluded to the similarity between the symptoms in fatal cases of inflammation of the middle ear and the symptoms of typhoid fever, and thought there might be danger of mistaking one for the other.

Dr. F. A. Castle referred to the fact that in very small children there was a liability, because of the inability of the child to direct attention to the seat of pain, to overlook acute inflammation of the ear, and thus many cases were permitted to go on to suppuration and perforation of the drum-membrane.

Dr. Knapp, in closing the discussion, subscribed to the suggestion made by Dr. Agnew, with reference to the erect posture. He dwelt upon rest in bed, be-

cause he regarded it as most favorable in reducing the action of the heart and breaking the force of the circulation.

With reference to opening the mastoid process, he had simply related his own experience; but certainly if pus was retained there, and it could be diagnosticated as such, the operation should be performed. He thought the indications were not very frequent, since the exit of that pus into the middle ear would not be difficult. The operation became necessary chiefly when, in chronic cases, the mouth of the antrum became plugged with inspissated material.

With reference to applying a leech to the inner surface of the auditory canal, because a greater effect would be produced than by applying leeches about it, he thought that was true, but the objection which he had was that leech bites were sometimes followed by erysipelatous inflammation, and in that case the tissues became swollen, filled the canal and prevented the discharge from the ear from escaping readily.

With reference to the question by Dr. Prout concerning diagnosis, Dr. Knapp states that he had entered only such cases as really showed a discharge.

With regard to instillations reaching different portions of the drum cavity, he meant to state that, in the beginning of the disease, antiphlogistic treatment, by rest in bed, etc., was the principal feature, and that he preferred to treat the parts about the drum cavity rather than the drum cavity with remedies; resolution would take place in the natural decline of the inflammation. He had found in his experience that the use of caustics, and strong astringent solutions, in the first stage of acute inflammation of mucous membranes, was apt to aggravate the inflammation, even giving it a different character. Afterwards the rule was entirely different.

On motion made by Dr. Piffard, a vote of thanks was extended to Dr. Knapp for his valuable paper.

The Society then proceeded to the transaction of business.

Dr. Samuel Sexton was elected delegate to the State Medical Society, to fill the vacancy caused by the election of Dr. Horace P. Farnham as permanent member.

The Society then adjourned.

Correspondence.

THE POWER OF CARBOLIC ACID TO ABORT THE PUSTULATION OF SMALL-POX.

Ching-Kiang, China, Jan. 30, 1879.

To the Editor of The Medical Record.

Sir:—In the "Record" No. 421, November 30th, it is stated on the authority of "*The Lancet*" that the efficacy of carbolic acid in aborting the eruption of variola is proved to be nothing; and secondly, that further investigation is required.

Of the value of the acid as an internal agent in the treatment of small-pox I am now unable to speak, but I have good reason to regard it as possessing power to abort pustulation if brought in direct contact with the eruption. For the past six years it has been my sole remedy in the treatment of small-pox, with the exception mayhap, of a night draught or a laxative—and during that period I have used it constantly in a somewhat extensive foreign and native practice. I cannot better explain my method of treatment, than by an example from my case-book:

E. S., aged 34, merchant, has not been vaccinated since infancy; was taken ill at Shanghai, January 10th, twelve days after his visit to a man-of-war in this port of Ching-Kiang, on which small-pox had appeared some days before. Returned to his home on the third day after the disease had declared itself, and I saw him at midnight. Patient delirious; high fever; pulse 130; temperature 102°. He was at once placed in a large apartment with an open fire, the windows were opened, and venetians closed to exclude light. (The windows were not again closed during his illness, although snow fell, and the weather was unusually severe.)

January 14th.—The eruption has appeared, the face is much swollen, the eyes cannot be opened, there is a copious flow of saliva, and the patient is unconscious. Pulse 110; temperature 100°. Ordered to have face, neck, and arms frequently and freely anointed with a solution consisting of acid carbolic, ʒ jss.; glycerine water, āā, ℥ i., and to have the entire body sponged twice daily with a like solution.

January 16th.—Patient much better. Pustulation fully accomplished, and there is no delirium, and little fever. The pulse never again rose beyond 85, or the temperature above 99°. On the eighteenth day he visited me at my office, and while his face exhibited proof of how extensive had been the eruption, I was able to assure him there would be little sign left of his trouble, and so it proved, for I saw him after an interval of a year, and the pits on his face were limited to five.

I have not spoken of his secondary fever, because there was none, and it is a stage in small-pox I have long ceased to anticipate, regarding it as "dependent on absorption into the circulation of pus in a state of decomposition, or some product arising therefrom," which may be destroyed as formed, or even its formation prevented by an antagonistic agent, like carbolic acid. The application of a strong solution at first gives great pain, but very shortly is readily submitted to, even asked for, as it allays irritation, and the desire to scratch. Those pustules which are disposed to coalesce remain discrete, while those which are scattered fail to reach the size arrived at on such parts of the body, where, experimentally, the lotion is not applied. This at least has been my experience.

Yours faithfully,

A. R. Platt, *Medical Officer.*

Imperial Maritime Customs, Ching-Kiang, China.

Obituary.

JOHN M. WOODWORTH, M.D.,

Supervising Surgeon-General, Marine Hospital Service.

The news of the death of Supervising Surgeon-General John M. Woodworth was wholly unexpected, save by those who were in attendance upon him during the last days of his illness. Within a week of his death he was seized with typhoid pneumonia, complicated with erysipelas, and being already much worn down by the arduous duties of his office, his remaining vital energies rapidly succumbed. Death occurred Friday, March 14th. Dr. Woodworth was born at Big Flats, Chemung Co., N. Y., Aug. 15, 1818. His parents soon after removed to Illinois, and at the War-

renville Seminary young Woodworth commenced his preliminary education, completing it at the University of Chicago. He next studied pharmacy, engaged in business, at the same time he commenced the study of medicine, graduating in 1862, in the Chicago Medical College. He then entered the army, first as Assistant Post Surgeon at Camp Douglas, and afterward in the field as Assistant Surgeon of volunteers. He was with Sherman's army from Corinth to the sea, being successively promoted to Surgeon, Medical Inspector of the Fifteenth Corps, and Medical Director of the Army of the Tennessee. He was complimented in general orders for his energy in the establishment of field hospitals during the Atlanta campaign, and again, in the subsequent campaign, for his moving ambulance hospital, which carried 100 wounded men from Atlanta to Savannah and placed them in hospital there without the loss of a single life, although a number of important operations had to be performed by the way. Brevetted Lieutenant-Colonel for distinguished services, three years after being mustered out of the service, he was appointed Post Surgeon of the Soldiers' Home at Chicago, and Sanitary Inspector of the Board of Health.

He then visited the hospitals of Berlin and Vienna, remaining abroad a year, and returning to Chicago, commenced the practice of his profession. The marine hospital service having been created in 1871, he became its chief officer, with the title of Supervising Surgeon-General. It is an act of ordinary justice to the deceased to say that the present efficiency of the service is due to his skilful system of organization and his remarkable executive ability. He discarded the system of appointing on political grounds, introduced competitive examination, and substituted the wholesome and inexpensive pavilion hospital for the heavy, costly, and badly-ventilated structures he found in use. Marine and hospital hygiene were his specialties; but as a naturalist he was scarcely the inferior of Prof. Baird, and as a histologist ranked as an expert, having passed the winters of 1859, 1860, and 1861 under the tutelage of the former in the Smithsonian Institution, and served as Professor of Histology for a year or more in the college at which he was graduated. His principal scientific works and papers are: the "Mystery of Life," published in 1871; "Regulations of the United States Hospital Marine Service," 1873; "Hospitals and Hospital Construction," 1873; "Cholera in 1873 in the United States:" "Migrants and Sailors in their Relation to Public Health;" "Safety of Ships and those who Travel in Them," and "Quarantine with Reference to Yellow Fever." His work on the "Nomenclature of Diseases," 1874, is the standard reference of the marine hospital service.

Largely through his instrumentality the National Quarantine Act became an accomplished fact, and by his prompt and skilful interpretation of its provisions he achieved a national reputation. During the late yellow fever epidemic he devoted himself to the sufferers and succeeded in establishing a commission of inquiry, which was afterwards merged into that of the Commission of Experts, of which he was appointed by Congress as president *ex-officio*. With the work done by this commission our readers are already sufficiently familiar. During the past few months Dr. Woodworth devoted himself to the procuring of legislation bearing upon the creation of a National Health Bureau. His untimely death will be greatly regretted by the medical profession, and by that large class of persons whom he was the means of befriending in their dire calamities.

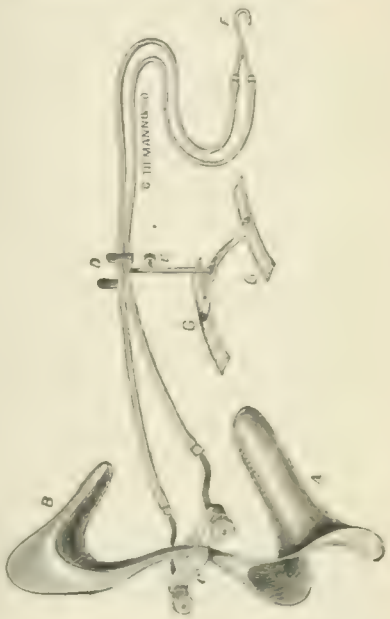
New Instruments.

AN ADDITION TO THE SIMS'S SPECULUM FOR MAKING THAT INSTRUMENT SELF-RETAINING.

By B. E. FRYER, M.D.,

SURGEON U. S. ARMY.

We have devised a very simple addition, which can be made to any Sims's Speculum, and which readily allows of that instrument being used as a self-retaining one. The accompanying wood-cut illustrates the speculum with this addition applied to it.



A and B are the blades of the instrument; at C two parallel bars, running at right angles to the shaft of the speculum, are clamped firmly by circular milled nuts, which turn upon two cylindrical bars, which latter, at their further extremity, are slightly curved. Upon each of the ends of the curved bars is fastened a piece of India-rubber tubing, and the tubing is united in a metal hook at F. At D, the tubes pass over what we call the "bridge," which has a base at C. The vertical portion of the bridge allows of being raised or lowered, and of retention at the desired height by a screw at E.

The flange of the blades, or specular portion of the instrument, is modelled after that of Emmet, and these blades are so bent as to make with the handle or shaft an angle less than that in the Sims's instrument as usually made; this lessened angle, as is now generally known, having been found a more convenient one.

The mode of using the instrument is quite simple. The cross-bars being loosened by turning the milled nuts, are slid up the handle out of the way, the blade to be used is introduced (the patient being of course in the Sims's position) the cross-bars are brought down again, as shown in the woodcut and fastened; the bridge is placed on the patient's sacrum, over the clothes, and the rubber tube carried over the patient's right shoulder. The operator now draws upon the

speculum, as is done in the Sims's instrument until sufficient perineal retraction is had, when the tubes, which have been carried over the patient's right shoulder, are drawn upon by the patient (or assistant), and either held in her right hand or are fastened by the hook to a staple in the table on which she is lying. It will be found that a very slight strain by the patient will retain the instrument, for the tubes bind, as it were, upon the shoulder, and allow of the retention of the instrument by a but comparatively slight muscular effort; and even if this effort is impossible, as it would of course in a prolonged operation, and in any case under anæsthesia, the hook could be easily fastened so as to hold the instrument firmly. The elasticity of the rubber tubes, it will be found, equalizes the tension admirably.

Of course it is understood that for the specialist, practising in a large city and with well trained assistants and a good nurse always at command, a self-retaining instrument is not essential, but for the general practitioner, who is frequently prevented from using the Sims's instrument, which is the best of all specula, simply from the difficulty in obtaining such aid, it is believed that a satisfactory self-retaining instrument will be very advantageous and desirable.

The instrument is made by Messrs. G. Tiemann & Co., New York.

In drawing the illustration of the instrument, the draughtsman has made a slight error, which however is unimportant and which will be readily understood. The curved bars, to which are attached the rubber tubes, should be turned a half circle, if the blade A is being used, which in the engraving it is represented as. The illustration shows the bars in proper position for the use of the blade B.

FORT LEAVENWORTH, KANSAS, *February*, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 9 to March 15, 1879.

TOWN, F. L., Major and Surgeon. To accompany the first detachment of recruits to the Pacific Coast, and upon completion of this duty report in person to the Commanding General, Department of the Columbia, for assignment to duty. S. O. 58, A. G. O., March 11, 1879.

TILTON, H. R., Major and Surgeon. To report to Commanding General, Department of the Missouri, for assignment to duty. S. O. 58, C. S., A. G. O.

DEWITT, C., Capt. and Asst.-Surgeon. To proceed to New York City, report in person to the President of the Army Medical Board for examination, for promotion, and upon completion of examination rejoin his proper station. S. O. 58, C. S., A. G. O.

LAUDERDALE, J. V., Capt. and Asst.-Surgeon. Assigned to duty at Mt. Vernon Barracks, Ala. S. O. 40, Department of the South, March 6, 1879.

DELOFFRE, A. A., First Lieut. and Asst.-Surgeon. To report in person to the Commanding General, Department of the South, for assignment to duty. S. O. 58, C. S., A. G. O.

PORTER, J. Y., First Lieutenant and Asst.-Surgeon. Granted leave of absence for one month, from 1st proximo. S. O. 41, Department of the South, March 7, 1879.

POWELL, J. L., First Lieut. and Asst.-Surgeon (recently appointed). To report in person to the Commanding General, Department of Texas, for assignment to duty. S. O. 58, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 15, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Mar. 8, 1879..	0	4	198	2	1	52	0	0
Mar. 15, 1879.	0	7	215	1	17	39	0	0

VITAL STATISTICS OF NEW YORK FOR 1878.—The Health Department of the City of New York furnish the following statistics:

Population of the City of New York, according to the New York State Census, estimated July 1, 1878, was 1,083,371; total births (not including still-births), 25,729; total marriages, 7,629; total still-births, 2,192; total deaths (not including still-births), 27,008; total deaths of children under 5 years of age, 12,410.

Percentage to the total mortality.—Deaths of children under 5 years of age, 45.95; deaths of persons 5 years of age and over, 54.05.

Number of deaths from—Small-pox, 2; measles, 272; scarlatina, 1,099; diphtheria, 1,007; croup, 499; whooping-cough, 382; typhus fever, 4; typhoid fever, 245; cerebro-spinal fever, 97; phthisis pulmonalis, 4,466; pneumonia, 2,288; bronchitis, 1,184.

Diarrhœal diseases.—Children under 5 years of age, 2,598; all ages, 2,945.

Death-rate per 1,000 inhabitants, 24.93.

Meteorology.—Mean temperature (Fahr.), 53.52; mean pressure (barometric inches), 29.850; mean humidity (saturation 100), .74; number of miles travelled by the wind, 54,988; total rain-fall (in inches), 48.66.

TÆNIA MEDIOCANELLATA.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Prof. Leidy exhibited two specimens of tapeworms, *Tænia Mediocanellata*, both retaining the head. These had been recently submitted to him for examination by Dr. James J. Levick and Dr. Walter F. Atlee. Tapeworm appears not to be a common affection with us. Several physicians, in extensive practice in Philadelphia, had informed him that they never had a case. During the last ten or fifteen years from one to two specimens annually had been submitted to him, but the present year he had seen five specimens. He had been surprised to find that all pertained to the species indicated. Formerly he supposed that our common species was the *Tænia solium*, but later experience would indicate that the *Tænia mediocanellata* is the more common. The distinction between the two had been observed only comparatively recently, so that no doubt many specimens formerly attributed to the former actually belonged to the latter.

When the head is present the two species are readily distinguished. The *Tænia solium*, whose larval form is found in the "measle" of pork, has the head provided with a crown of hooks. *Tænia mediocanellata*, derived from beef and mutton, has a larger head, which is unarmed. The ripe segments are also usually readily distinguished in the two species. In the *Tænia mediocanellata* the ovaries are divided into many more pouches than in *Tænia solium*.

In Dr. Levick's case the man had been in the habit of eating raw buffalo meat. In one of the specimens exhibited, the suckers of the head appeared as black spots, from the black pigment on their interior surface. The genital apertures were also black from the same cause. In the other specimen the head appeared less black from pigment about and around the position of the suckers, and the genital apertures do not appear black.

The Philadelphia Woman's Medical College Commencement.—The annual commencement was held in Association Hall, Philadelphia, on March 13th. The exercises were opened with a prayer by the Rev. Dr. D. O. Kellogg. T. Morris Perot, Esq., President of the Board of Corporators, conferred degrees upon twenty graduates. The degree of M.D. was also conferred upon Rachel L. Bodley, A.M., the Dean of the College. The valedictory address was delivered by Prof. Clara Marshall, M.D. The prize of $50 for the best report of the lectures during the past term was awarded equally to Anna S. Kugler and Louisa Schneider, both of Pennsylvania.

The Commencement of the Medical School of the University of Pennsylvania.—The Alumni Association of the Medical Department of the University of Pennsylvania held its annual meeting on Thursday evening, March 13th. The oration was delivered by Dr. Steiner, of Maryland. The following officers were elected: President, Geo. B. Wood; Vice-Presidents, John L. Atlee, Meredith Clymer, W. S. W. Ruschenberger, and T. J. Gallagher; Treasurer, Wharton Sinkler; Executive Committee, Hiram Corson, Ed. Hartshorne, Wm. Hunt, Andrew Nebinger, John H. Packard, H. Lenox Hodge, James H. Hutchinson, James Tyson, Wm. F. Norris, Samuel Ashhurst, Thomas J. Yarrow, R. A. Cleemann, Wm. Pepper, S. S. Stryker, C. B. Naucrede, DeF. Willard, Louis Starr, Charles Baum, Charles M. Seltzer, and Thomas H. Cathcart; Corresponding Secretary, H. R. Wharton. The orator for 1880 is Traill Green, of Easton, Pa.

The annual commencement of the Medical Department of the University of Pennsylvania took place on Friday, March 14th, at the Philadelphia Academy of Music. The exercises were opened with prayer by the Rev. Samuel E. Appleton, D.D., after which Provost Stillé conferred the degree of M.D. upon ninety-one graduates, and that of D.D.S. upon twenty-five graduates. The first prize of $100 for the best essay was awarded to Wm. G. Davis, of Pennsylvania, and the second prize of $100 was divided between F. H. Cathcart and D. Cerna, of Pennsylvania. Those who were mentioned as distinguished were G. E Abbot, Ph.D., Wm. H. Burk, and Wm. E. Casselberry, Pennsylvania; J. M. Frazier, Texas; Peter McGough, Pennsylvania; E. T. Reichert, Pennsylvania, and J. S. Stone, W. Virginia. The gold medal anatomical prize was awarded to Frank O. Nagle, of Pennsylvania, and the prize for the best list of anatomical anomalies found in the dissecting room to L. P. Carbonell, Cuba. The valedictory address was spoken by Prof. John Ashhurst, Jr.

Pregnancy in the Elephant.—At the invitation of Mr. Tule, the manager of the "Great London Circus," a number of medical gentlemen, among whom were Professors Joseph Leidy, R. A. F. Penrose, and Harrison Allen, of the University of Pennsylvania, and Drs. Henry C. Chapman, John H. Brinton, and Frank F. Maury, visited the winter quarters of the circus at Twenty-third Street and Columbia Avenue, in Philadelphia, on Friday, March 14th, in order to inspect a female elephant said to be pregnant.

During the course of the examination some points of great interest to the medical and scientific world were brought out.

The female elephant believed to be pregnant had been covered twice by a male elephant at Concord, New Hampshire, on the 25th of May, 1878. At the time of examination she was consequently in the tenth month of pregnancy.

The two breasts, which are situated immediately between the front legs in the elephant, were full and swollen. The nipples were very prominent, and pointed outwards and downwards instead of directly downwards. The milk veins on the surface of the abdomen were also very prominent.

The general opinion hitherto held with regard to the act of copulation on the part of the elephant has been that it is performed while the female lies on her back. This is the view taken in all works on the subject. Additional reasonableness was no doubt lent to this view by the fact that the penis of the male elephant when artificially caused to be erected by titillation of the rudimentary mammary glands points downwards and backwards, the glands curving inwards upon itself, and not forwards and upwards as in the human species, and that this state of affairs seemed to be demanded by the position of the urethra in the female, the opening of which lies well between the hind legs, and the calibre of which points almost directly upwards towards the rectum.

In this instance, however, the act of copulation had been twice performed, and on both occasions the male had mounted upon the back of the female, and the penis, instead of curving backwards as is the case under artificial sexual excitement, had *curved forwards and upwards*. These facts were very thoroughly authenticated. This proves that previous ideas upon this subject have been altogether erroneous.

The fact was shown, to the great wonder of those present, that the elephant's height is always equal to twice the circumference of the soles of its feet, the natives in India employing this means of determining the height of a captured elephant.

Curious glands, sebaceous in origin, were pointed out by the keeper in the roof of the elephant's mouth and behind the eyes. In the glands behind the eyes wax is wont to accumulate, and causes much annoyance to the elephant unless removed.

It was further shown that the tongue of the elephant does not possess any frænum.

As the period of normal pregnancy in the elephant is twenty months, it was expected that the calf would be born, if nothing unforeseen should occur, on January 25th, 1880. The birth of an elephant calf away from India is a great rarity.

Transactions of the Kentucky State Medical Society, Frankfort, Ky., April, 1878.—Besides the regular contributions on medical subjects, several memorial addresses were delivered on the late Dr. L. P. Yandell. Dr. Charles H. Todd, of Owensboro, was elected *President*, and Dr. L. S. McMurtry, of Danville, *Secretary* for the ensuing year.

Rush Medical College.—Dr. James Nevins Hyde has been made a professor of "Dermatology and Venereal Diseases" in Rush College; and Dr. John E. Owens has received the appointment of professor of "Orthopedic Surgery" in the same institution. Both Chairs are now, for the first time, established in the regular course of this college.

JEFFERSON MEDICAL COLLEGE COMMENCEMENT.—At the annual meeting of the Alumni Association of Jefferson Medical College, held on Tuesday afternoon, March 11th, the following officers were elected: President, Sam'l D. Gross, M.D., LL.D. Vice Presidents, Addinell Hewson, M.D.; Edward Caswell, M.D.; Elwood Wilson, M.D.; and P. S. Connor, M.D. Treasurer, Nathan Hatfield, M.D. Recording Secretary, Thomas H. Andrews. Corresponding Secretary, Richard J. Dunglison. The Annual Address before the Alumni Association was delivered on Tuesday evening, March 11th, in the lecture room of the college hospital, by Dr. Edward T. Caswell, of Providence, R. I., in the presence of a large audience. The subject of the address was "The Present Phase of the Alcohol Question from a Medical Point of View."

The Fifty-fourth Annual Commencement of Jefferson Medical College was held in the Philadelphia Academy of Music, on Wednesday morning, March 12th. The Rev. Thomas F. Davies opened the exercises with a prayer, after which Dr. Gardette, the President of the Board of Trustees, conferred degrees upon *one hundred and ninety-six graduates.*

The following prizes were awarded by the Dean:—A prize of $100, by Henry C. Lea, Esq., for the best thesis, to Henry C. Boenning, of Penn., with honorable mention of the theses of Frank E. Stewart, of New York; Wm. L. Kneedler, of Pa.; Carlos M. Brown, of Cal.; Monroe Bond, of New Hampshire, and Wm. S. Hoy, of West Va. A prize of $50 for the best essay on a subject pertaining to surgery, to Bernard R. Lee, of Pa., with honorable mention of the theses of Norman H. Chapman, of Illinois, and Henry Ness, of Pa. A prize of $50 for the best anatomical preparation, to Wm. L. Kneedler, of Pa. A prize of $50 for the best essay on a subject pertaining to obstetrics, etc., to David C. Lichliter, of Va., with honorable mention of the theses of Howard F. Hansell, of Pa. A prize of $50 for the best essay on a subject pertaining to Materia Medica and Therapeutics, to Louis Weiss, of Colorado, with honorable mention of the thesis of Albert T. Poffenberger, of Pa. A prize of $50 for the best essay on a subject pertaining to Physiology, to Wm. C. Caball, of Del. A prize of $50 for the best essay on a subject pertaining to the theory and practice of medicine, to Jno. L. Yard, of Pa., with honorable mention of the thesis of Wm. L. Rodman, of Kentucky. A prize of $50 for the best essay on a subject pertaining to chemistry, to Geo. W. Cram, of Pa., with honorable mention of the thesis of James R. Duggan, of Georgia. A prize of a gold medal, by the demonstrator of surgery, for excellence in bandaging, to Lawrence F. Flick, of Pa., with honorable mention of G. A. Scroggs, of Ohio. A prize of a gold medal, by R. J. Levis, M.D., for the best report of his surgical clinic at the Pennsylvania Hospital, to Chas. M. Gandy, of N. J., with honorable mention of Norman H. Chapman, of Ill., Addinell Hewson, Jr., of Philadelphia, and Bernard R. Lee and Wm. H. Righter, of Pa.

After the delivery of the class valedictory by Geo. T. McCord, the valedictory address was read by Dr. James Aitken Meigs, Professor of the Institutes of Medicine and of Medical Jurisprudence. This address was a novelty of its kind, being entirely in verse of classic metre.

THE PHILADELPHIA DENTAL COLLEGE COMMENCEMENTS.—The Pennsylvania College of Dental Surgery held its Commencement at the Academy of Music, in that city, on Friday evening, February 28th. There were 42 graduates. Prof. J. Ewing Mears, M.D., delivered the valedictory address.

The Philadelphia Dental College held its annual Commencement at the same place on Thursday evening, February 27th. There were 49 graduates. Prof. Sam'l B. Howell, M.D., delivered the valedictory.

The meeting of the Alumni Association of the Philadelphia Dental College was held in the college building, on Friday morning, Feb. 28th, when papers were read by Drs. T. C. Stellwagon, of Phila.; C. E. Francis, of N. Y.; L. Ashley Faught, of Pa.; F. L. Bassett, of N. J.; A. N. Roussel, of Pa.; and Prof. Royce.

IPECACUANHA AS A RELIABLE AND POTENT OXYTOCIC.—Dr. J. H. Carriger, of Knoxville, Tenn., claims that *Ipecacuanha* is a reliable and potent oxytocic, safer than ergot, and that it facilitates the dilatation of the rigid os. Two grains was the usual dose; prompt effects followed.—*New York Med. Jour.*, Nov., 1878.

PROF. ALFRED STILLÉ, of the University of Penn. Medical School, in accordance with a determination expressed by him to serve but fifteen years, when he was elected in 1863 to the chair of the Theory and Practice of Medicine, lately handed in his resignation. At the special request of the Trustees, however, the doctor was persuaded to withdraw the resignation.

PROF. WM. H. BYFORD, who has occupied the chair of Obstetrics and Diseases of Women in the Chicago Medical College since its organization, twenty years ago, has resigned to accept the chair of Gynæcology in Rush College. Prof. Dr. Laskie Miller retains the chair of Obstetrics in Rush College.

WALLACE'S CRANIOCLAST.—Prof. Ellerslie Wallace, of Jefferson Medical College, exhibited to his class, upon a recent occasion, a new and valuable cranioclast, devised by himself, and made by Mr. Gemrig, of Philadelphia. The blades are of the Hodge shape, but hollow and unfenestrated. The peculiar value of the instrument depends upon an ingenious mechanism, by means of which two long teeth are sprung in the hollow of each blade so soon as the instrument has first been placed in position, clasping the fœtal head, and has then been slightly relaxed so as to allow these teeth room to act. Dr. Wallace recently, in consultation, delivered a child, first crushing its head, when all other instruments had utterly failed. The instrument will not release its hold until either the woman has been completely delivered, or the head of the child has been torn from its body. The price of the instrument is $50.

WOMAN'S HOSPITAL, STATE OF ILLINOIS.—There has been difficulty of late in the management of the Woman's Hospital of the State of Illinois, between the board of lady managers and Dr. Jackson, the surgeon-in-chief. As a result, Dr. J. has resigned with the rest of the medical staff. A new staff has been called to the institution, at the head of which is Prof. Byford. The other members are Drs. Rolen, Merriman, Nelson, Sawyer, and Flood.

A LOCAL ANÆSTHETIC.—℞. Pulv. camph., ʒ vi.; æther. sulph., f. ʒ i. M. Apply to the gum surrounding the tooth to be removed until the gum turns white, when the tooth can be extracted with scarcely any pain.—*Dental Cosmos.*

PHOSPHIDE OF ZINC IN HYPOCHONDRIA.—On the ground of three observations, Trubert recommends the phosphide of zinc in hypochondria, in the daily dose of 12 milligrammes (gr. 1⅛). He has also found this remedy to be more efficacious than any other in the treatment of hysteria.—*Der Irrenfreund.*

Original Communications.

ON SOME OF THE SURGICAL USES OF THE ACTUAL CAUTERY.

By ALFRED C. POST, M.D., LL.D.,

VISITING SURGEON TO THE PRESBYTERIAN HOSPITAL, IN THE CITY OF NEW YORK.

(Read before the Medical Society of the State of New York, Feb. 6, 1879.)

THERE is an old adage, "Quod medicamenta non sanant sanat ferrum: quod ferrum non sanat, sanat ignis."

There is no doubt that the actual cautery has often been misapplied, and that its use has been blindly resorted to by persons who have been ignorant of the true pathological conditions of the diseases in which it has been employed, and of the exact therapeutical indications for their treatment. Thus I have heard of a quack who, when called to treat an obstinate ulcer, covered its surface with inflammable materials, which he set on fire, saying that he did not know how to cure the sore, but he did know how to cure a burn.

But I am well satisfied that, in appropriate cases, and with proper precautions, the actual cautery is a remedy of great value, as a means of relieving severe and protracted suffering, of arresting the progress of disease, of preventing extensive disorganization of important parts, and of averting fatal results of morbid action.

At an early period of my professional life, during a temporary residence in Germany, my attention was drawn to the value of this important remedy by a pamphlet published by Ritter von Kern, of Vienna, entitled "Ueber die Anwendung des Glüheisens in der Verhandlung der Gelenkkrankheiten."

Soon after my return to this country I began to employ the remedy in the treatment of chronic diseases of the joints, and to direct the attention of other surgeons to its value as a therapeutical measure in this class of cases. And I have not been disappointed in my expectation of the valuable results to be obtained from this mode of treatment. And having had such ample proof of its beneficial effects in diseases of the articulations, I have been led by analogy to apply the same remedy in other diseases characterized by obstinate, severe, and disorganizing inflammation, or by severe and protracted pain, not yielding to other treatment. I propose, on the present occasion, to lay before the Society some of the results of my experience, and to indicate some of the directions in which further observations may advantageously be made.

The term actual cautery may include any form in which heat may be applied to the surface of the body so as to produce a greater or less degree of irritation of the part to which it is applied, and a greater or less degree of disorganization of the tissues which are immediately involved. The agent may be a bundle of solar rays, concentrated by a lens, a metallic or other body of strong conducting power, heated by fire or by an electric current, a flame directed upon the surface by means of a blow-pipe, or a combustible body ignited in contact with the surface.

The action of the heat may be so gentle as simply to redden the surface, or it may occasion vesication, or it may disorganize the skin throughout a part or the whole of its thickness, or the deeper tissues may be involved in the same disorganizing process. The different forms of the actual cautery, and the different degrees of their action, are applicable to the treatment of a variety of morbid conditions.

I will here enumerate some of the principal therapeutical uses of the actual cautery in its different forms:

I.—It is employed as a hemostatic. This was one of its earliest applications. And before the introduction of the ligature as a means of arresting arterial hemorrhage the cautery was much more extensively used for this purpose than it is at the present time. But there are many cases in which the ligature cannot be applied without deep and extensive incisions in the midst of important parts, where the actual cautery may be used as a substitute with great advantage. And there are other situations, as in the fauces, the vagina, and the rectum, where the ligature cannot be applied, and where the actual cautery is our principal reliance for the arrest of hemorrhage. There are certain precautions which are necessary to be observed in order that we may obtain the best results from the employment of the cautery as a hemostatic.

1st. The hemorrhage should be temporarily arrested, if possible, at the moment when the cautery is applied. If the seat of the hemorrhage be in one of the extremities this object is best accomplished by the application of Esmarch's elastic bandage. In other situations pressure may be made by means of a sponge, squeezed as dry as possible, and withdrawn at the moment when the cautery is to be applied. The application of the cautery in the midst of a puddle of blood is, of course, a very unreliable remedy.

2d. The cautery should be heated only to a dull red heat, and the application to the bleeding surface should not be prolonged. If the cautery be at a white heat it destroys the coats of the vessels more rapidly than it coagulates the blood, and may thus increase the hemorrhage instead of arresting it. The same effect may be produced by a cautery at a red heat if the pressure be too great, or if it be continued too long a time. If the cautery be at a black heat it may be applied more firmly, and it may be kept a longer time in contact with the tissues.

In selecting a cautery to be used as a hemostatic we may be governed, in some measure, by the condition of the part to which it is to be applied. We may use for this purpose the old cauterizing iron, heated by a charcoal fire, by a Bunsen's burner, or by a spirit blow-pipe, or we may have recourse to the galvanic cautery or to the benzine cautery. The simple and inexpensive cauterizing iron may be used with entire satisfaction in most regions of the body. But in the fauces, and in the deeper parts of the vagina or of the rectum there is an advantage in the use of the galvanic or the benzine cautery, as either of these instruments may be used with more deliberation and with more precision.

II.—The actual cautery is employed in the treatment of vascular tumors, with the intention of constringing the vessels, of coagulating the blood, and of exciting plastic exudation, by which the whole of the affected tissue is solidified, and its vascularity diminished. For this purpose the cautery may be used in a variety of forms. In the treatment of superficial telangiectases, involving the arterial capillaries of the skin, the solar rays, concentrated to a focus upon the vascular surface by means of a lens, will accomplish the object speedily, without any breach of the surface, and without the formation of a scar to disfigure the patient. This method was introduced by Mr. Augustus Barnes, and an account of it published in the *Medical and Surgical Reporter* by Dr. Pinckney W. Ellsworth, of Hartford, Conn., and quoted in the MEDICAL REC-

ORD of Dec. 15, 1866. The same class of morbid growths may be treated by the flame of a blow-pipe cautiously directed upon the surface. But the more common mode of applying the actual cautery in the treatment of telangiectasis is by the use of cauterizing needles, which are made to penetrate the interior of the diseased tissue. The needles should be blunt at the point, as, if they penetrate the tissue mechanically, they will give rise to troublesome hemorrhage. They should be heated to a dull red heat, and should be applied at a great number of points, that the influence of their application may be extended to the whole of the morbid growth.

A very convenient instrument for this purpose is the multiple cautery devised by Dr. Thorp, of Chenango Co., in this State. It consists of six metallic wires set in a frame, at a distance of a sixteenth to an eighth of an inch apart, so that, at each application, the skin is penetrated at six distinct points. I have frequently used this instrument, and it has yielded very satisfactory results. The galvanic and benzine cauteries may also be used advantageously in the treatment of telangiectasis.

In the subcutaneous venous telangiectasis, where the arterial capillaries of the skin are not involved, the skin may be dissected from a portion of the surface of the tumor, and a small globular cautery may be made to penetrate the morbid growth. In this way the disease may be cured, and the formation of a disfiguring cicatrix may be avoided.

III.—The actual cautery is employed in the removal of morbid growths which are situated in narrow and deep cavities, where their removal by excision would be attended with the danger of uncontrollable hemorrhage, as in the fauces, and in the deeper parts of the vagina and the rectum. In such cases the galvanic cautery is most advantageously employed, either by encircling the neck of the tumor with a platinum wire, which is then heated by means of a galvanic battery, or by excising with the cautery knife. Care should be taken not to apply too high a degree of heat, or to penetrate the tissues too rapidly, as the danger of hemorrhage would thereby be greatly increased.

IV.—The interior of a morbid growth greatly distending the vagina may be destroyed by repeatedly plunging into it a heated cautery iron, thus reducing its bulk, and making it possible to extract it through the vulva. In this way I succeeded in removing an enormous fibroid mass arising from the posterior lip of the os uteri, and filling the pelvis, so that I could not move it until I had reduced its bulk with the cautery. The operation was performed in the Presbyterian Hospital, in New York, and was reported to the New York Academy of Medicine. In the performance of the operation I had the advice and assistance of Prof. T. G. Thomas.

V.—The actual cautery is a remedy of great value in the treatment of severe and obstinate articular inflammation. I have had large experience in the application of the remedy to this class of cases, and I can confidently recommend it to the profession as a most valuable therapeutical agent. I have usually employed, in these cases, a globular cauterizing-iron, attached by a narrow stem to a wooden handle. I heat the iron to a white heat, and apply it so as to penetrate through the skin into the subjacent connective tissue. I usually apply it at two to four points, the patient being in a state of anæsthesia at the time of the operation. I direct ice-water dressings for a few hours, and subsequently the ointment of balsam of Peru, or of salicylic acid.

As illustrations of the beneficial effects of the application of the actual cautery in articular diseases, I will select two cases out of a considerable number in which the remedy seemed to me to be the efficient means of preserving life.

The first case was that of a young man who was admitted into the Presbyterian Hospital, under my care, for retention of urine, resulting from a very close stricture in the bulbo-membranous portion of the urethra. He was a young man of intemperate habits, and a very unfavorable subject for surgical treatment. I could not succeed in introducing any instrument through the stricture, and as the bladder was greatly distended, I plunged into it above the pubes, a hollow needle connected with an aspirator, and drew off a very large quantity of urine. I repeated the aspiration morning and evening for three days, and finding the stricture impassable, I then proceeded to perform external urethrotomy without a guide. Having divided the stricture, I was able to pass a steel sound thirty millimetres in circumference through the whole length of the urethra into the bladder. There was no further trouble in the evacuation of the urine, but three or four days after the operation, the patient had an attack of acute synovitis of the right knee. He suffered severe pain and tenderness in the affected joint, and there was a great amount of constitutional disturbance. The limb was supported in a slightly flexed position, on a double inclined plane, and the usual remedies were employed to combat the inflammation. But for a number of days the case went on from bad to worse, and I had serious apprehensions for the life of the patient. I then had the patient etherized, and applied the actual cautery at four points, two on each side of the joint. The application was a very thorough one, extending deeply into the subcutaneous tissues. On recovering from the anæsthesia, the patient expressed himself as being greatly relieved since the application of the cautery. Two hours after the application his temperature was 2° lower than before the cauterization, and the average temperature for a fortnight after the application was 2° lower than for a corresponding period before. A steady improvement in the condition of the patient occurred until the time of his discharge from the hospital.

The second case was one of a boy about ten years of age, whom I saw in Jersey City in consultation with Dr. Quimby. When I was summoned to the consultation I was not aware of the nature of the case. I found the boy suffering greatly from morbus coxarius in its third stage. The leg was flexed upon the thigh, and the thigh upon the trunk, so that the knee was almost in contact with the chin, and every attempt to extend the limb occasioned great agony to the patient. There was great febrile excitement, with high temperature, rapid and feeble pulse, and very marked emaciation. The patient could not be placed in any position in which he was free from pain, and his rest was greatly disturbed by his constant sufferings arising in part from the distorted position of the limb. The patient was etherized and the limb was then brought down into an extended position, parallel with its fellow, and maintained in that position by extension with a weight and pulley. There was a fire burning in the grate, and the poker was readily heated to a bright red heat, and applied behind the trochanter major, burning through the thickness of the skin to the extent of two-fifths of an inch in breadth and about three inches in length. The extension of the limb and the cauterization were followed by an immediate improvement in the con-

dition of the patient. The pain was relieved, the fever subsided, and the appetite and strength returned. When I saw him a few months afterwards, his limb was straight and free from deformity, but the hip was in a state of fibrous anchylosis. He was able to walk with a firm step; he had a ruddy complexion, had gained many pounds in weight, and presented the appearance of perfect health. It appeared to me that the treatment which was employed had been the means of saving him from the rapidly approaching fatal termination of his disease.

VI.—I have found the actual cautery, in some cases, an efficient means of restoring motion to paralyzed limbs. The cases in which I have been successful have been for the most part those of peripheric origin, where there was no morbid condition of the nervous centres. The cases have been chiefly those where a limb has been paralyzed by pressure upon its principal nerve, or by some other form of mechanical injury. The form of cautery which I have used for this purpose has been chiefly the moxa, or the burning of a combustible body upon the surface of the limb. I generally place three or four pieces of camphor along the course of the nerve, surrounding each piece with a coil of wet rag, and set fire to them, allowing them to burn until they are consumed, or extinguishing them with the wet rag if they seem to be burning too long. Each piece of camphor is of a conical or hemispherical shape, from three-eighths to half an inch in diameter. The action of the moxa applied in this way seems to be more exciting than that of the cauterizing iron, and it does not occasion as profound disintegration of the tissues.

VII.—I have employed the actual cautery with great satisfaction in the treatment of a number of cases of severe, protracted, and obstinate neuralgia. I can recall several instances of severe neuralgia of the anterior crural nerve which were promptly and permanently relieved by the application of the cautery at two or three points over the seat of the pain.

A few months ago I removed a deep-seated tumor from the neck of a woman about 50 years of age. The tumor was situated beneath the sterno-cleido-mastoid muscle, which was partially divided during the operation. The wound was dressed antiseptically, but not with all the details of Lister's method. It united substantially by the first intention. Soon after she began to complain of severe neuralgic pain on that side of the neck. Failing to relieve the pain by milder methods, I made a free application of Thorp's multiple cautery at a number of points over the seat of pain, with entire relief. After the lapse of a number of weeks the pain returned, and was again relieved by another application of the cautery.

I have applied the actual cautery for the relief of neuralgic pains in various parts of the body, and have seldom failed to obtain marked alleviation, if not absolute removal of the pain.

VIII.—I have employed the actual cautery for the relief of cystitis, with a degree of success which seems to me to warrant further trials of the remedy in obstinate cases of that very distressing disease. Several years ago I was attending an old gentleman, who was suffering severely from prostatic cystitis, and the neck of whose bladder was very intolerant of the introduction of instruments, so that it was found impracticable to carry out a thorough system of catheterization and irrigation of the bladder. I proposed to him the application of the actual cautery as a probable means of relief. He inquired whether I had ever used the remedy in a similar case. I replied, that I had not; but having derived great benefit from its use in severe and obstinate cases of inflammation affecting other deep-seated organs, I reasoned from analogy that it would be likely to exert a favorable influence in cystitis. He refused to allow a trial of the remedy. I afterwards had an opportunity of testing the value of the cautery in the following cases:

Case I.—Patrick Reddy, ætat. 63; born in Ireland; admitted to Presbyterian Hospital on the 6th June, 1877, under the care of Dr. Briddon.

Previous History.—Twenty years ago the patient first noticed that the left side of the scrotum was swollen, and he complained of pain over the region of the left kidney. The scrotal swelling was about half the size of a man's head. He wore a bandage with relief. For the last three months there has been a prominence above the pubes, attributed to a distended bladder. At this time, on walking, he would be obliged to pass his urine once or twice per hour; if he failed to do so, it would dribble away. This condition grew worse, until two weeks ago, when he could no longer pass a stream of urine by voluntary effort; but, unless the bladder were emptied with a catheter, there would be a constant dribbling. On rectal examination, the prostate was found to be moderately enlarged. A large prominence could be seen and felt above the pubes, caused by the distended bladder, supposed to contain two or three quarts of urine, as twenty ounces were drawn off without perceptible diminution of the swelling. The patient was sounded for stone, with a negative result. A large swelling was found on the left of the scrotum, about the size of a cocoanut; it was thought to be a hydrocele, but on applying the dioptric test, it was not found to be translucent.

Directions were given to introduce a catheter three times a day, and draw off a portion of the contents of the bladder, not emptying it entirely for several days, to avoid the shock which would be likely to occur if the over-distended bladder were too suddenly evacuated.

June 7th.—℥ l. drawn off; abdomen still prominent; 8th. ℥ lxx. drawn off; 9th. ℥ xc. drawn off; 10th. ℥ lxxxiij. drawn off; 11th. ℥ lxxiv. drawn off. Urine is of a much darker color; on examination, it is found to contain pus and blood-corpuscles in large quantity.

13th.—The average daily quantity of urine drawn off by the catheter has been about ℥ lxxv., in addition to which an estimated quantity of ℥ viij. to x. has dribbled away. His temperature has risen to a point varying from 100° to 104° in the evening. At each catheterism he has complained more or less of a feeling of prostration.

25th.—Since the last date the patient has complained of severe pain when the catheter has been introduced. He has had numerous chills with febrile paroxysms. The urine is drawn off with difficulty, in consequence of the presence of several false passages communicating with the urethra. During the past few weeks there has been marked progressive emaciation. To-day the house-surgeon, Dr. Buechler, tapped the hydrocele, and drew off about ℥ xij. of an albuminous fluid.

30th.—Since the last report, patient has had daily injections of gr. ½ acetate of lead dissolved in two ounces of water. To-day it was stopped, and two ounces of a solution of a drachm of salicylic acid in a pint of water were directed to be injected three times a day to prevent the decomposition of the urine, which had become quite fetid.

July 7th. In addition to the five grains of sulph.

quinia, which the patient is taking morning and evening, he was directed to take ℥ i. of infus. diosm. crenat. four times a day.

16th.—The urine is for the most part quite clear, but sometimes it becomes fetid.

19th.—Patient has recently had several attacks of diarrhœa and vomiting, for which a mixture containing sulph. morphiæ, tinct. capsic., and chloroform has been ordered. The dose of infus. diosm. crenat. has been increased to ℥ ij. three times a day, and a twentieth of a grain of sulphate of strychnia was also ordered to be taken morning, noon, and night. He was also ordered to be faradized daily, one pole being brought into communication with the lumbar region, and the other with the perineum.

20th.—The vomiting and diarrhœa have ceased.

Aug. 1st.—The patient came under my care to-day. The urine is drawn off with a catheter, and the bladder washed out at regular intervals as before. Appetite and general condition somewhat improved.

Aug. 15th.—The urinary symptoms remain stationary. Changed the injection to nitric acid, in the proportion of one drop to an ounce of water.

30th.—Etherized the patient and applied the actual cautery at two points above the pubes, to a sufficient depth to destroy the skin.

Sept. 1st.—There is a marked improvement in the condition of the patient. The pain in the region of the bladder is greatly relieved. The urine, instead of constantly dribbling, is retained ten minutes or more at a time, and then comes in a small stream and without pain. In every respect the patient expresses himself as feeling much better than at any previous time since he entered the hospital. He bears the introduction of instruments much better than before the cauterization.

6th.—For two or three days there has been a hard swelling in the perineum, to the left of the rhaphe. It is slightly painful and tender. Poultices have been applied to it. It is now reduced in size, quite hard, free from pain, and very slightly tender on pressure.

12th.—The patient does not retain his urine quite as well as immediately after the cauterization. But he continues to improve in health and spirits. His bladder is still washed out with water acidulated with nitric acid.

22d.—Ordered Ung. Sabin. to keep issues open.

29th.—Patient sits up the greater part of the day. He walks about the ward, and feels in every way stronger and better. He can sometimes retain his urine for an hour or two after the irrigation of the bladder. The lump in the perineum has increased in size, and has again become painful. Ordered poultices to be reapplied.

Oct. 1st.—Fluctuation was detected. A puncture was made, but no pus escaped.

2d.—A little pus escapes from the opening, mingled with urine.

10th.—Most of the urine escapes through the opening in the perineum. The patient is in good spirits, eats with a good appetite, and has a healthy complexion.

30th.—Patient continues to gain strength. He can retain his urine for three or four hours, and he ejects it in a good stream, and with considerable force.

Nov. 5th.—The acid injections now cause some irritation, and are directed to be discontinued, and the bladder to be irrigated with simple tepid water. The dose of the sulphate of strychnia is reduced to one-thirty-second of a grain, three times a day.

27th.—The patient was discharged from the hospital in a good state of health, cured of his incontinence of urine, and evacuating his bladder by voluntary effort, and without pain. He did not hesitate, at any time after the cauterization, to ascribe his improvement to the application of the cautery.

Case II.—Simon Stanley, ætat. 62. Born in Ireland. Admitted into Presbyterian Hospital, May 13, 1878, under care of Dr. Briddon.

Previous History.—About forty years ago patient had gonorrhœa, which lasted about six months. He denies having had any other venereal disease. Five years ago, while lifting a heavy weight, he had a hernial protrusion, which has not occasioned any serious trouble. Otherwise he has enjoyed good health until about two years ago, when, without any assignable cause, he began to suffer from a desire to urinate every fifteen or twenty minutes. When he retained his urine a longer time, he suffered pain. He continued in this way about a year, when he became worse, urinating once in five to ten minutes, and suffering pain in the glans penis. This pain was relieved immediately after he evacuated his bladder. He urinated more frequently during the day than during the night.

Present Condition.—Patient complains of pain in the lumbar region, with frequent desire to urinate, and pain in the glans penis before evacuating the bladder.

Examination of Urine.—Sp. gr., 1010. Reaction slightly acid. Slight pulverulent sediment.

On microscopical examination, found pus corpuscles, epithelial cells of the bladder, mucus, and no casts. On chemical examination, slight traces of albumen were found. The following prescriptions were ordered:

℞. Liquor potassæ,
Tinct. hyosyami, āā..... ℥ ss.
Aquæ ad..... ℥ iij.
M.

Sig. A teaspoonful in half a tumbler of water three times a day, after meals.

℞. Tritici repent..... ℥ ij.
Aq. bullient..... Oij.
M.

Sig. The whole quantity to be taken in twenty-four hours.

14th.—Urine can be retained longer; patient suffers less pain, and feels stronger. An attempt was made to sound him for stone, but the bladder was so irritable that the sounding was unsatisfactory.

20th.—Patient was etherized, water was injected into the bladder, and patient was sounded with Thompson's searcher, but no stone was detected. The prostate was found to be enlarged.

21st.—All medicines were discontinued. Ordered a solution of eight grains of acetate of lead in a pint of water. One ounce mixed with an ounce of hot water, to be injected into the bladder and allowed to escape. This injection to be made three times in succession, to be followed by immediate escape of the fluid, and then a fourth injection to be retained.

24th.—There is some improvement in the symptoms.

29th.—As the vesical irritation continues to be very troublesome, Dr. Briddon had the patient etherized, and applied the actual cautery above the pubes, making an eschar about an inch in diameter.

30th.—Patient feels better; he retains his urine longer, and suffers no pain on micturition.

June 12th.—Continued improvement.

17th.—Patient is suffering from toothache. Ordered three drops of Fleming's tincture of aconite to be painted on the gums every two hours. It afforded immediate relief.

July 11th.—The vesical symptoms are steadily improving. Yesterday, while patient was attempting to get out of bed, he bruised one of his testes. Today it is swollen and painful. Cloths wrung out of ice-water were ordered to be applied.

12th.—The ice-water afforded no relief, and was accordingly discontinued; warm poultices were substituted. The washing out of the bladder was temporarily discontinued.

16th.—Ordered the following prescription:

℞. Ext. belladonna..... ℥ j.
Ung. simpl..... ℥ j.
M.

Sig. Anoint the scrotum over the inflamed testicle.

18th.—The orchitis has entirely subsided. The washing out of the bladder is ordered to be resumed.

Aug. 20th.—Continued improvement.

Sept. 7th.—Patient was discharged at his own request. His general health is much improved. He can retain his urine from one to two hours while he is going about, but when he is recumbent he is obliged to evacuate his bladder more frequently.

Dr. Briddon and myself were both satisfied that this patient was greatly benefited by the application of the actual cautery.

In the two cases of cystitis which I have reported, the improvement following the application of the actual cautery was so prompt, so decided, and so persistent, as to constitute a strong argument in favor of a further resort to the remedy in severe and obstinate cases. A careful consideration of the facts in connection with these two cases will show clearly that I do not propose the actual cautery as a substitute for other well-known remedies, but as an auxiliary to be used in conjunction with them. In our attacks on disease, we may well imitate the tactics of a skilful general, who, while he leads the main body of his army to attack the enemy in front, at the same time sends a chosen division to the flank or rear of the hostile position, that the rout may be more certain and more complete.

IX. The last use of the actual cautery which I will propose, is in the treatment of varicose veins.

In the great majority of cases of varicose veins of the lower extremities, the palliative treatment, by methodical pressure, is to be preferred to any attempt to obliterate the diseased veins. And the introduction of elastic bandages for this purpose, as advocated by Dr. Martin, of Boston, in an essay read before the American Medical Association, has furnished the profession with a far more reliable means of carrying out this indication than it had previously enjoyed. But, nevertheless, there are cases of extreme severity in which the disease cannot be controlled by palliative measures, and the obliteration of the diseased veins affords the only chance of placing the patient in a position to engage in the active pursuits of life. In such cases I would suggest the actual cautery as a means of accomplishing this desirable end. It is only recently that my attention has been drawn to this method, and I have only resorted to it in one instance. The patient was a man who had passed middle age, and who had suffered much inconvenience from a varicose condition of the saphena vein and its branches, on one of his legs, greatly interfering with his ability to work for his living. I ed cauterizing needles at a large number of p..nts along the course of the enlarged veins. The local inflammation following the application was very slight, and there was scarcely any constitutional disturbance. A radical cure was promptly effected. An account of this case was published in the Medical Record of Jan. 18, 1879.

If similar results should follow the application of the remedy in a considerable number of cases, it will constitute a valuable addition to our therapeutical resources.

ON THE TRAUMATIC ORIGIN OF SUB-FASCIAL, DEEP-SEATED, OR COLD ABSCESS.

Commonly called Constitutional or Scrofulous Abscess.

By LEWIS A. SAYRE, M.D.

(Read before the Medical Society of the State of New York, Feb. 6, 1879.)

Under the head of "Scrofulous Abscess," Prof. Samuel Gross (*A System of Surgery*, Vol. I., p. 141, 1866) remarks, that "The scrofulous abscess is of such frequent occurrence, and possesses, withal, such distinctive features, as to entitle it to a separate consideration." "It is never met with except in strumous constitutions."

Psoas abscess he regards (Vol. II., p. 184) as an "essentially strumous disease, which can occur only in persons of a strumous disposition."

Dr. J. M. Chelius (*System of Surgery*, Translated by J. F. South, Philadelphia, 1847, Vol. I., p. 57) states that cold abscesses "are always the consequence of a general cacochemic or dyscrasic affection."

Geo. H. B. Macleod, M.D., F.R.C.S.E. (*Outlines of Surgical Diagnosis*, First Am. Ed., New York, 1864, p. 63), remarks, that "cold or chronic abscess occurs generally in young persons of a lymphatic or scrofulous temperament."

Dr. Frank H. Hamilton, A.M., says (*The Principles and Practice of Surgery*, New York, 1873, p. 40) that, "chronic or cold abscesses occur almost exclusively in persons of feeble constitutions, and especially in persons of strumous habit."

From the careful observation of several cases of deep-seated abscess that have come under my personal care, occurring in persons of previous good health and from healthy parents, and in which cases the disease could be distinctly traced to a traumatic origin, I am inclined to doubt the statements of the above quoted authorities and the generally prevalent opinion that these abscesses must necessarily be connected with a constitutional cachexia and arise from a constitutional condition without some local exciting cause. In fact I am inclined to doubt even the possibility of their existence without being excited by some local injury, even when occurring in persons with a depraved constitution. I am very much more inclined to agree with the statement found in *A System of Surgery*, extracted from the works of Benjamin Bell, of Edinburgh, by Nicholas B. Waters, M.D., Philadelphia, in 1792, where we find (page 432, under the head of Lumbar Abscess) the following: "This disease seems, in general, to be induced by a bruise, twist, or some other injury of the small of the back." It is my opinion that the etiology of all other deep-seated abscesses, excepting specific and glandular enlargements, will be found to be the same as Benjamin Bell has here given for lumbar abscesses.

Many of these abscesses may arise from a blow or bruise, but most of them arise from a wrench or strain of the muscles, in many instances tearing off more or less of their fibrous insertion at their periosteal attachments. In many instances these attachments are so deep-seated as to give no local manifestations that can be detected, or when superficial they are not of sufficient extent to attract immediate attention to the slight exudation, or effusion which takes place; this exudation or effusion is the result of a strain or rupture of some tissue, but owing to the fact that it is situated in a locality which is normally poorly supplied with absorbent vessels, is not taken up, and being unsuspected, the effusion is continued, and being increased by constant irritation and motion, finally undergoes a degenerative metamorphosis into pus.

The pus may be at first very small in amount, and being deep-seated, unsuspected, and not detected, increases in quantity and burrows in different directions in the tissues, taking that course where the least resistance is met with, and may thus continue burrowing for many months, or even years, until the pus has found its way, by a more or less tortuous course, to the surface of the body, where it can be detected as a fluctuating tumor. During all these months the retained pus has been a noxious element in the system, and has produced the constitutional disturbance which we find in connection with this disease, as the result of this absorption to a greater or less extent, thus poisoning the system, or, by its mere mechanical presence, producing pressure upon the adjacent parts, thereby interfering with their nutrition and vitality, and causing pain by pressure upon the nerves, thus keeping up a continuous irritation, until finally the general system becomes involved, and we thus have the constitutional disturbance produced by the presence of the abscess instead of the abscess being the result of a previously vitiated constitution, as is generally supposed.

Thus it will be seen that we have had for a long time in the system the very conditions which are sufficient to deprave the general health even of the most robust, and, owing to the fact that this depraved condition of the general health is usually observed before the pus has reached the surface, or the abscess has been detected, the profession has been wont to attribute the abscess to the depraved condition instead of what is the true explanation, namely: that the depraved condition is due to the presence of the abscess.

The following are a few of the cases that have come under my personal observation and have led me to make the above remarks.

Case I.—B. H., Tenth Street, New York; age twelve years, brought to me in June, 1876, by Professor T. M. Markoe, M.D., with the following history:

Patient's father died at about fifty years of age, from disease of the heart. Mother is a robust, healthy woman, and she has six other children, all of whom are healthy. This boy had always been a healthy child until the summer of 1875, when he spent some time in the White Mountains, in Vermont. At the hotel where he was staying there were several cases of sickness which were attributed to bad drainage and the contamination of the water thereby. After his return to the city in the fall he seemed to have a general malaise, weakness and loss of appetite without any distinct symptoms, but he was thought to be suffering from malaria. Quinine and tonics were used without benefit. In the month of February, in getting out of a bath-tub his brother suddenly discovered that one of his buttocks was larger than the other; this being made known, Dr. Markoe, who had the case in charge, was again sent for and his attention drawn to the swelling. He discovered an abscess under the gluteal muscles of the left side and extending above the crest of the ilium. He opened this abscess just above the posterior crest of the ilium in the lumbar space, and gave exit to a very large amount of pus, the exact number of ounces not being determined. A spica bandage was applied and worn. The abscess discharged for some months and finally closed, but every few weeks it would break out again and discharge. This was the condition when the patient was brought to me in June. The above condition was looked upon by Dr. M. as the local manifestation of a malarial and constitutional disorder.

Upon stripping the patient and making an examination I found the left gluteal region much broader and flatter than the other, with a swelling upon the posterior portion of the thigh three inches below the tuberosity of the ischium. Upon pressing this tumor pus escaped through the opening which had previously been made above the posterior crest of the ilium. A long flexible probe was then passed into this opening downward and backward over the ilium towards the sacrum, then bent forward and downward and made to be distinctly felt upon the posterior aspect of the thigh, some three or three and a half inches below the tuberosity of the ischium, but no dead bone could be detected. A counter-opening was now made at this point which gave exit to some two or three ounces of pus. The probe being passed in at this lower opening went directly upward and inward and immediately came in contact with dead bone at the tuberosity of the ischium. So soon as the location of the dead bone was determined the young lad exclaimed: "Why! that is the very place where I got hurt when the horse bucked with me in the mountains last summer." Upon a more careful inquiry it was discovered that from the day of this injury, which he received while riding, he complained for some time of severe pain at that place, having difficulty in sitting down, and was obliged to suspend his horseback exercises. From this time he acquired the habit of sitting upon his opposite buttock, which gave rise to a twist in the body which the family had been disposed to attribute to his general debility.

From the above history it would seem that the boy's trouble was clearly due to a traumatism, and this view is further strengthened by the fact that he was perfectly healthy previous to the injury which he had received. Probably the reason that this injury had been overlooked and forgotten is, that he only complained of the local tenderness for a few days. This tenderness afterwards subsiding, and being lost sight of by the prominence of his general debilitated condition, which was due to the irritation of the pus which had been formed at this point, and being so deep-seated, was not detected, nor even suspected, until months after, when the pus had made its way externally under the gluteal muscles upward and presented itself as a fluctuating tumor above the crest of the ilium.

The diagnosis now being clear that we had a case of necrosis of the tuberosity of the ischium, a free incision was made down to the dead bone and the necrosed portion removed. Carbolized water was freely injected, escaping through both openings; an india-rubber drainage tube was drawn through the upper opening to the lower opening, traversing the incision over the tuberosity. The wound was dressed with Peruvian balsam and oakum, and the walls of

the abscess firmly supported by a roller bandage. From this time the boy's improvement was rapid, and terminated in a perfect recovery, and he has since remained so, showing no sign of constitutional taint whatever; but on the contrary is an exceedingly vigorous and robust boy.

Case II.—A very similar case will be found in the London *Lancet* for July, 1871, occurring in the service of Mr. Callender, of St. Bartholomew's Hospital. The patient was a man who had been treated in the hospitals of London for six years for scrofulous disease of the hip-joint. Various abscesses upon the back and thigh had been discharging during all these years and had gradually exhausted the patient. I was called in consultation as to the propriety of exsecting the hip-joint; but upon examination I found that the hip-joint was perfectly sound, and that the disease was necrosis of the tuberosity of the ischium. Mr. Callender made an incision down to the tuberosity of the ischium and removed a piece of necrosed bone, and the man made a rapid recovery. It was then discovered that the man had some years previous been a stage-driver, and had received an injury at this point from the jolting of the stage while riding over rough roads, and this had resulted in a necrosed condition of the ischium.

Case III.—In September, 1878, I was called by telegraph to Wilmington, Delaware, to see a gentleman, with Dr. W. R. Bullock and Dr. Jas. A. Draper, who was supposed to have hip disease. The patient had been an active, robust lawyer, between forty and forty-five years of age, who had been taken ill some six months previous with what was then supposed to be rheumatism of his left hip. After some weeks of fruitless treatment he was sent to the hot springs of Virginia; but as he grew gradually worse and more feeble Dr. Cabel, of Virginia, advised him to return to his home in Wilmington. At this time it was suspected that caries of the hip-joint had become developed, and Dr. Agnew, of Philadelphia, was called to see him, who decided that the hip-joint was not organically involved; but the patient was now so far exhausted that he thought no treatment would be of avail, and hence suggested nothing. I was then telegraphed to to see him, and reached the patient twenty-four hours afterwards. I found him delirious, greatly prostrated, and in a profuse perspiration; in fact, presenting all the symptoms of pyæmia. Upon a careful examination I was enabled to corroborate Dr. Agnew's opinion in regard to the hip-joint not being involved. I, however, detected a large abscess deep under the gluteal muscles. By firm pressure over the gluteal region a fluctuating tumor appeared upon the posterior and outer portion of the left thigh. Dr. Bullock had already suspected an abscess in this region, and had aspirated it just before my arrival, but obtained nothing. I therefore made a free incision over the fluctuating tumor over the outer portion of the thigh and gave exit to a very large amount of pus. The ordinary probes were not of sufficient length to reach the bottom of the abscess; a silver catheter was therefore passed, and with it I detected a ridge of denuded bone about the middle of the ilium along the line where the gluteus medius muscle is attached. The catheter was then turned with its projecting point towards the surface and a counter opening made through the gluteal muscles, when this curved line could be distinctly felt uncovered of its periosteum. A drainage tube was then drawn from one opening to the other. The patient never became entirely conscious, and died at the end of a week of pyæmia. After the abscess had been discovered, and the location of its origin definitely fixed, which was the origin of the gluteus medius muscle, some gentlemen friends of his, being present, stated the following circumstances:

In March last he had acted as one of six pall-bearers in carrying a very large man, weighing nearly three hundred pounds, to the church, and back to the hearse, and then to the grave. One gentleman remembered distinctly of his complaining that he had hurt himself at that point when he attempted to lift the coffin, but it had entirely passed from their minds until this time. Another friend who was present said that the night after the funeral the patient spent the evening with him at his house, and in getting up to go home he placed his hand upon this portion of his hip and said that he had either strained it or had got rheumatism. From this time the trouble continued until he was sent to the hot springs of Virginia as above stated.

Case IV.—W. K., Forty-ninth Street, near Fifth Avenue, New York. Forty-three years of age; a vigorous, robust, and well-developed man, who in going down his front stoop, which was glazed with ice, slipped, and in attempting to save himself from falling, made a great muscular effort, and was seized with a pain in the upper and anterior portion of his thigh about four inches below Poupart's ligament. He was brought in a carriage to my house immediately after the accident. There were no external appearances that would attract attention to any portion of his thigh unless it might be a very slight depression at the point I have mentioned. At this point the pain was so intense that I could account for it in no other way than that he had ruptured some of the fibres of the crureus, or torn them from their periosteal attachment. I advised complete rest in bed, with the leg elevated and thigh lifted, and the application of a firm roller bandage, carrying it over the thigh; this treatment to be kept up for a week or ten days until the parts had time to regain their integrity. The patient seemed to think I was making a more serious case than the appearances would justify, and sought other advice. He was told that it was a matter of trifling importance and that he might go about his work. . . . In the course of about five weeks he detected a discoloration of the thigh at some distance from the point of injury, both upon the inside and outside. About three months afterwards I was again called to see him and found a large abscess in his thigh, which I aspirated and afterwards opened antiseptically after Lister's plan, and he then made a prompt recovery.

Case V.—A. M. S.; age two and a half years. Brought to me in January, 1853, with symptoms of lumbar abscess. The patient at this time was in a tolerably good condition. Upon examination I thought I detected deep-seated pus; a consultation was held by Drs. Willard Parker and Valentine Mott, who were unable to detect fluctuation and advised the local application of iodine and the internal administration of cod-liver oil. In the following March or April the patient returned to the city, and Drs. Parker and Valentine Mott saw him in consultation with me, and both agreed at this time that my first diagnosis was correct, and that there was deep-seated pus. The abscess had now become quite marked and easy to recognize; they advised a vulvular incision upon the left side. It was my wish to have a free incision, but being overruled, the abscess was evacuated by a valvular incision, the air being cautiously excluded and the wound hermetically sealed and a bandage placed over it. The patient went to the country in

June, and in July following there were two valvular incisions made upon the right side; both times with my protest, as I was anxious for a free incision. On account of the reduced condition of the patient he was again sent to the country, near the sea-shore, in order that he might get the benefit of salt water bathing and sea-air. In September I was called to the sea-side to see him as he was thought to be dying. He had become greatly emaciated, had hectic fever, entire loss of appetite, and was drenched with a copious perspiration. The tumor was now quite prominent, particularly upon the right side. The father now gave his full consent for me to proceed with the case as I desired, as he would prefer to have him die to have him suffer as he was then doing, and wished me to perform the operation which I had at first proposed. I immediately made a careful incision around the posterior crest of the ilium, giving exit to a large amount of pus, and upon exploration I at once came in contact with necrosed bone extending from the superior to the posterior spinous processes of the crest of the ilium and leading down to the junction of the sacrum and the ilium, this portion being denuded of its articular cartilage, and was carious. A considerable portion of the necrosed bone was scraped away and the wound filled with Peruvian balsam and oakum, and the child put to bed.

After the incision had been made and the bone was found diseased, the mother then said that that was exactly the place where her child had hurt himself by falling off from a trunk backwards against the baseboard, while they were at Saratoga, in the August previous to the time of my seeing him. She had forgotten all about this until it was brought to her mind by determining the location of the diseased bone.

From the hour of the operation he improved in all his symptoms; the hectic fever subsided, his sweats ceased, and his appetite returned. The wound went on discharging for some five or six months, at the end of which time it closed. The patient subsequently made a complete and perfect recovery, and grew to be a vigorous and robust man, able to perform the active duties of a civil engineer upon our Western frontier.

This patient was seen fifteen years afterward by Dr. LeRoy M. Yale, who met him and entered the following note in my history book: "The patient is in no way inconvenienced by the old disease; no sign of it remains, save a cicatrix some four inches in length, which has considerably contracted in size since the incision was made."

Case VI.—L. H. S., Fifth Avenue, New York, age 20. He had previously enjoyed perfect health. He began one afternoon to complain, without apparent cause, of feeling sick and unable to continue his daily avocation. He complained of a circumscribed pain upon the right side between the ninth and tenth ribs, at the point of their greatest curvature. In the evening of the same day he was seized with excessive nausea, and vomited freely the food which he had taken during the day, which was almost wholly undigested. The next morning he complained of this localized pain, which led me to suspect that he had received some injury at this point. I questioned him very closely, but he positively asserted that he had in no wise been injured. The case progressed, but as he was no better, and fearing some grave visceral disturbance, I called Dr. Austin Flint in consultation, who, upon a careful examination, could detect no serious difficulty, and gave a favorable prognosis under expectant treatment. The patient for a time remained able to sit up and to go out riding, but after some weeks he began to have chills one or more times per day, and his general prostration became much more marked. Dr. A. L. Loomis, then saw him in consultation with Dr. L. M. Yale, a number of times, both looking upon the case as one of malarial origin, and that the liver was involved. Mercury and quinine were advised and taken in liberal doses for some weeks without any improvement. Blisters were then applied over the liver, and repeated at intervals of a week for some time; tincture of iodine was also locally used. His general health became completely broken down, and upon a more careful examination Dr. Loomis now decided that there was chronic enlargement of the liver from malarial poisoning, which could probably be relieved by a two years' residence in a high altitude. The pain and difficulty of breathing at this time had become so great that the patient had become unable to take exercise even in the easiest riding carriage, and he was taken to the Hot Springs of Virginia, for the purpose of having the "Hot Spout" which is celebrated for its action upon the liver after mercurials have failed to produce the desired effect. I might here state that the idea that the liver was the source of the trouble was maintained, notwithstanding there was no jaundice whatever of the skin or conjunctiva, and the stools were natural in color. I accompanied the patient on his Southern trip. We reached Richmond by steamer, the patient bearing the trip with a considerable degree of comfort; but his trip from Millboro to the Springs, though only sixteen miles distant from the railroad station, took three days, during which time the patient suffered immensely from the jolting of the vehicle in which he was riding. On arriving at the Springs I found Drs. Cabel, of Virginia, and Stewart, of Georgia, and a number of other well-known Southern physicians, who at my invitation examined the patient and manifested a great deal of interest in the case. All these gentlemen were of the same opinion as Dr. Loomis; I could not agree with them, and still felt quite confident that there was deep-seated pus and that it was not connected with the liver. The first day that the patient was subjected to the "Hot Spout," the temperature of the water being, I think, 98° or 100°, he was much more comfortable, and this bath was followed by an exceedingly dark colored evacuation from the bowels. This gave great encouragement, and I was inclined to adopt the views of my medical friends. But in the course of two or three days his breathing became much more rapid, and the distention over the liver and lumbar region becoming more distinct, I felt confident that I detected fluctuation, and decided to explore it even if it were connected with the liver, inasmuch as five months had elapsed since the commencement of the trouble, which would have been quite time for peritoneal adhesions to have taken place. In the presence of Drs. Stewart, Cabel, and a number of other medical gentlemen whose names I cannot now remember, I made a puncture with a tenotome nearly two inches in depth; no pus escaped, but as the instrument could be easily moved from side to side, I was confident it was in a cavity, and by partially withdrawing the instrument, which was narrower in the blade than at the heel, pus escaped beside it, and I therefore, without removing the knife, made a four-inch incision diagonally across the quadratus lumborum muscle, which gave exit to an exceedingly large amount of pus, I think something over a quart. This gave the patient instant relief from all his worst symptoms. Some days after, while dressing the wound, I discovered a prominent tumor in the right hypochondrium, upon the pressing of which pus was found to escape in the opening in the lumbar region.

Some days after this the tumor increased in size and required firm pressure to evacuate its contents; a consultation was had with the medical gentlemen there present, and it was decided to make an incision down upon this tumor rather than to run the risk of the further burrowing of the pus. A careful dissection was made through the superficial and deep fascia, external oblique and the transversalis muscles, and I immediately came in contact with pus and some four or five ounces evacuated. A probe being passed in, and being found too short, a catheter was substituted and made to travel under the upper border of the tenth rib. A wire was then placed within the catheter and it was found pressing firmly against the transverse process of the tenth dorsal vertebra. A careful incision was made down to the end of this catheter, the wire withdrawn, and a rag, wet with carbolized oil, passed through the eye of the catheter and drawn through the wound, thus giving it free drainage. This procedure gave the patient great relief, and from that time his improvement was rapid and within a few weeks he was brought home. When the rag which had been introduced to give free drainage to the part had remained in about two months, it was then divided in the middle and made into two. This was in September. In the January following, as the sinuses still remained open and it was impossible to close them, Dr. A. B. Crosby put the patient under chloroform and connected the openings by a free incision under the border of the tenth rib, its whole length. After this had been done I found upon examination a half inch band of transverse fascia, behind which was pus. This I cautiously divided. It was then discovered that the last digitation of the serratus magnus muscle at the eighth or ninth rib had been torn from its attachment. When the patient recovered from the influence of the chloroform and his condition was explained to him, he immediately asked if lifting could have done this, and stated that the day before he had been taken sick he had strained himself by trying to raise the hind wheels of a carriage which were frozen in the mud, by placing his shoulders underneath the axle. From the time the fascial band above referred to was divided, and free exit was given to the pus, he began to improve, and completely recovered in about six months, and has remained in perfect health.

ALBUMINURIA IN PERSONS APPARENTLY HEALTHY; WITH THE PROPER METHOD FOR DETECTING IT.

By JOHN MUNN, M.D.,

ASSISTANT MEDICAL DIRECTOR UNITED STATES LIFE INSURANCE COMPANY, NEW YORK.

For several years past it has been the custom among many of our life insurance companies to require an examination of the urine when persons have made application for a policy, though only in cases where the amount was large, as, for example, $10,000 or over, or where, from the personal history or physical appearance, a kidney difficulty was suspected. From the fact that nearly ten per cent. of all the deaths of policy-holders in the United States Life Insurance Company, from whose records these figures are taken, occurred from Bright's disease, it was considered judicious to require an examination of urine in as many cases as possible, with the view of ascertaining in what percentage of applicants the urine was abnormal. This work was undertaken in the latter part of 1877. The result was that so many cases of albuminuria were discovered among those presenting themselves for insurance, that an examination of the urine was deemed necessary in the case of each applicant, and accordingly an order to this effect was issued by the executive. This furnished the opportunity to study the urine of persons apparently in perfect health and it was determined to make careful records of each case, using the most delicate means possible to detect any variation from the normal condition.

For our purposes, it was necessary to be able to discover albuminuria in its incipiency, and to do this special precautions were taken. It was found that after having boiled urine and added to it nitric acid, albumen, even though present in considerable quantity, might easily be overlooked if the test-tube were not perfectly clean and bright, or if it were not held in a light properly shaded. It is not sufficient to hold the tube before a dark background, as is sometimes done, as the light from the window or burner dazzles the eye. It is necessary that the light enter the room through a comparatively small opening, and that it fall upon the test-tube, allowing the eye of the observer to rest upon a background entirely dark.

The ease with which one may detect any solid substance in a liquid may be readily appreciated when we remember how completely filled with floating particles the atmosphere appears when a ray of sunlight enters a dark room through a small aperture, while in the same room with open windows the air seems perfectly clear.

After many experiments, the following plan has been found to answer the purpose fully: I have placed immediately below the window glass, and extending up to it, a large square of black pasteboard. The dark window shade is then drawn down to meet the upper margin of this pasteboard, and carried out at the bottom about one foot. Immediately under this the test-tube is held. By this method nothing but reflected light meets the eye. If anyone will place in a perfectly clean test-tube urine containing a considerable quantity of albumen, boil the upper portion, incline the tube to an angle of forty-five degrees, allow two or three drops of nitric acid to trickle down to the bottom, hold before an open window, or an unshaded burner, and afterward place in light reflected as described above, he will lose his faith in tests for albumen as ordinarily undertaken.

It is important that the acid should be carefully added, drop by drop, while the tube is in the reflected light, as in this manner the test is far more delicate. It has also appeared that albumen in a urine, alkaline, neutral, or even faintly acid, will not be readily detected. The urine must be distinctly acid, and when it is not, should be rendered so by the addition of acetic acid, and thoroughly well shaken before boiling. Unless this precaution is taken, albumen will be overlooked in many cases.

It is also necessary that the urine be allowed to stand quietly in the test-tube at least five minutes after the nitric acid is added, at the expiration of which time, if no cloudiness appears, it may safely be pronounced non-albuminous.

The following table is made up of cases coming under my own observation. The heart and lungs were normal in each, and nothing satisfactory was found to account for the albuminuria. Nor was there anything in the physical appearance of any, save possibly two, to warrant any suspicion of a renal disease. Each one considered himself in perfect health and really appeared as if he were. They were all excluded solely on account of albuminuria, and formed eleven per cent. of those presenting themselves to me for examination.

In nearly every case two or more specimens taken at different times were examined and albumen found in each.

No. of Case.	Occupation.	Age	Weight	Height	Pulse.	Albumen.
1	Bank clerk....	2[illegible]	125	5-8	76	Well marked.
2	Com. merch't.	23	180	5-6	86	Slight trace.
3	Lawyer.....	23	138	5-7	78	Abundant.
4	Public works..	29	245	5-9	108	Abundant.
5	Com. merch't.	32	160	5 9	76	Considerable.
6	Iron merch't.	32	175	5-11	80	Mod. quantity.
7	Telegraphy...	33	152	5-8	84	Well mkd trace.
8	Physician.....	40	165	5-8	84	Mod. quantity.
9	Printer.	40	176	5 6	82	Well marked.
10	Hay dealer...	41	185	5-11	74	Abundant.
11*	Bookkeeper in brewery.....	41	210	5-10	85	Mod.quan., also sugar.
12	Woollens.....	44	175	5-6	84	Abundant.
13	Whol. liquor merch	45	140	5-5		Considerable.
14	None.....	47	167	5-5	92	Abundant.
15	Ins. agent....	50	181½	5-9½	92	Trace.
16	Safes.....	52	257	5-8½		Albumen.
17	None.....	53	140	5-9	88-90	"Present."
18	Mec. engineer.	54	180	5-10	108	Considerable.
19	Dealer in velvets... ...	57	160	5-5	76	Considerable.
20	Lawyer.....	57	195	5-7	84	Well mkd trace.
21	Railroad president...	61	186	5-9½	84	Mod. quantity.
22	Clothing	61	160	5-5	84	Mod. quantity.
23	Mer. agency business ...	61	161	5-9	78	Well mkd trace.
24	Publisher.....	61	165	5-8½	66	A trace.

In a number of cases, the applicant having been advised of the cause of rejection, returned to me, saying that his family physician had examined a specimen of his urine, and found it perfectly normal. I have been able, however, in a few such instances—indeed, whenever a personal interview has been had—to convince the physician that the examination, as made by him, would not have detected any but a considerable quantity of albumen, and great surprise was expressed on demonstrating the ease with which it is possible to overlook albumen, unless proper care is taken in the analysis. Such experiences have strengthened the conviction that tests as ordinarily made are far from being satisfactory, and I feel compelled to make this assertion boldly.

While it is impossible to deduce definite conclusions from the limited number of cases given above, it is interesting to note that albuminuria was found as frequently in the young as in the old, half the number being under forty-five years of age; that in nearly half the number there was excessive weight; that the pulse was rapid in nearly all, though very little importance may be attached to this. Casts were found in but two cases.

There is great difference of opinion as to what the clinical significance of albuminuria really is, but that it should exist in eleven per cent. of a large number of individuals considering themselves perfectly healthy, and with no discoverable cause for its presence, is a fact worthy of consideration. When no discomfort is produced by it, our attention as physicians may not be called to these cases until a late period, when other manifestations of kidney disease appear. Consequently such cases are rarely observed. It is proposed to keep the cases here noted, together with such others as may come to my notice, under close observation; to examine the urine from time to time, and note whatever changes occur in it and in the general condition of the individual.

* Applied for insurance and was accepted in December, 1877; no examination of urine. Applied again in three months, but was rejected, both sugar and albumen being found in urine. Died three months later.

By so doing for a number of years, we may hope to approach a little nearer to the real significance of albuminuria.

These investigations thus far seem to warrant the following conclusions:

1. Albuminuria does exist in a far greater proportion of individuals apparently in perfect health than is ordinarily supposed.

2. The method of testing as commonly practiced, fails to detect any but a considerable quantity of albumen, and it is absolutely necessary to use light properly shaded.

3. The urine, if not distinctly acid, must be rendered so before boiling.

4. In an alkaline urine, unless properly acidulated before boiling, at least five minutes must elapse after adding the nitric acid before it is safe to pronounce it non-albuminous.

5. The early morning specimen frequently contains no albumen, while that voided later in the day does. Consequently a morning specimen, which physicians usually require for analysis, is not to be depended on in testing for albumen.

6. Carelessness in procuring specimens, which are often received in an unclean vessel, or placed in a partially cleansed bottle, or in foul test-tubes (unfortunately used by many physicians), renders the analysis untrustworthy.

The vessel receiving and conveying the specimen, and the test-tubes used in testing it, must be absolutely clean; the re-agents used must be chemically pure.

The production of bacteria is favored by uncleanliness in the urine receptacle. If such urine remains for a few hours in a warm room in a stoppered or unstoppered bottle, a cloud will appear, indicating the presence of bacteria in myriads. At this time no test for albumen is satisfactory. By careful filtration through many successive layers of ordinary filter paper we can remove many of them, but nothing short of porous clay is thoroughly successful. This latter method is obviously inapplicable. The moral is, never examine any but fresh urine for albumen.

50 E. Thirty-First Street, N. Y.

Reports of Hospitals.

THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

Notes of Practice and Peculiarities of Treatment.

(Prepared for The Medical Record.)

SOME INTERESTING POINTS IN THE DIAGNOSIS AND PROGNOSIS OF TYPHOID FEVER.

The case was that of a sailor, admitted to the hospital on the 27th of January, who had been in good health until four days before his admission, when he complained of chilliness, of fever, and of nausea, but of no headache. His nose bled profusely, and his bowels became very loose. Upon his admission *his face was singularly flushed*, and he had a severe pain in his back. His temperature was 104⅘° F., his pulse 92, and his respirations 24 to the minute. Nothing could be detected in the condition of the lungs to account for the heavy flush on his face. Upon examining the urine it was found to contain granular hyaline casts and bladder-epithelium. It was re-examined, with the same result.

The man remained in the same condition, with morning remissions and evening exacerbations, and with a few bronchial râles in his lungs, until the afternoon of the day after his admission, when profuse epistaxis supervened, and the characteristic rose-colored spots appeared on his abdomen, which grew swollen and tympanitic. *Still there was no headache.* On the evening of January 31st the man's temperature was 103° F. Between January 27th and February 1st there *was never a difference of more than one degree between morning and evening temperatures.* On the morning of February 1st the pulse was only 84, and the respirations 20 to the minute. The tongue was of the characteristic appearance—dry, cracked, reddish at spots, devoid of coating, varnished-looking. The typical spots on the chest and abdomen were slightly raised, and disappeared upon pressure. There was some gurgling in the right iliac fossa, and a moderate amount of abdominal distention. The bowels, after admission, were easily controlled by a single opium suppository daily.

On February 1st the face was still flushed. The breathing was rather harsh, and there were a few dry râles in the lungs. Still no headache, and intellect clear.

Dr. DaCosta, in his examination of the case on February 1st, and remarks upon it, developed some points of much novelty and interest.

The first sound of the heart he found to be very feeble, and there was most marked throbbing of the vessels at the root of the neck. He considered the case to be different from the great majority of cases.

He wished to lay great stress upon the presence of albumen in the urine upon the eighth day of the disease. The case would have to be very closely watched. The presence of the albumen might be explained in either one of two ways—(1) there might have been pre-existing disease of the kidneys as a complication of the fever, or (2) the typhoid fever had produced the disease of the kidneys. If the latter alternative were the true one—and it so seemed to him—the case was a very grave one, for the albumen was noticed as early as the fifth day of the disease. *Early albuminuria, as a symptom, never occurs in the course of typhoid fever unless the case is to be a very grave one.* Albumen is quite commonly found in the urine of typhoid fever patients in the third week of the disease. *The slight difference between morning and evening temperatures so early in the attack was another bad sign.*

Furthermore, the first sound of the heart was thus early altered. Alteration in the first sound of the heart does not usually occur until late in the course of the disease. *When the heart is affected early, it becomes a warning.*

In closing, Dr. DaCosta wished to call attention to the existence of flushed face, *without any disease of the lungs. It always was enough to raise suspicions as to the nature of the disease, especially when accompanied by great throbbing of the vessels at the root of the neck.* This fact had struck him many years ago, and, upon entering a sick-room and finding these coincident symptoms, he used to make a rough diagnosis of typhoid fever at once, without any further examination.

All these symptoms being as they were, it was determined to shape the treatment accordingly. Up to February 1st, the man had been taking f℥ iij. of whiskey daily. This quantity was at once increased to f℥ v. Together with this, gtt. x. of muriatic acid was given every four hours. The daily distributed dose of quinia was gr. x. The man's diet was very carefully regulated, consisting principally of beef-tea and milk. Diarrhœa was checked by opium suppositories. The patient was sponged morning and evening with tepid water.

Feb. 20th.—The man is now convalescent, having been carried through the attack by careful treatment. The albuminuria has disappeared.

ARTERIO-VENOUS ANEURISM.

There was recently a very interesting case of this description in the wards: that of a man whose pistol had been discharged accidentally while he was taking it out of his pantaloons pocket, the load passing completely through the right thigh from within outward, and piercing both the femoral artery and vein. Immediately after the accident the man was cognizant of a sawing sound caused by the passage of the arterial blood into the vein. When the patient returns from his home whither he has gone to settle his affairs, it is the intention of the attending surgeons to ligate the femoral artery above and below the point of injury.

INDICATIONS AGAINST PARACENTESIS THORACIS.

The case had been in the wards for some time with the history of an attack of pleurisy following exposure. When the patient was first admitted in November, examination revealed an old right-sided pleurisy with some evidence of abscess of the right lung. Subsequently the signs of pleuritic effusion developed rapidly, and it was very evident that there was considerable effusion in the lower part of the chest.

The question which arose was whether, with the evidence of a right-sided pleurisy, which remained rather stationary, together with the suspicion of tuberculous disease, resort should be had to aspiration, or whether the endeavor should be made to get rid of the effusion by medicinal means. When the patient was first admitted he had already had the effusion for several months.

Upon thinking the case over and considering the strong probability of disease of the lung itself, though masked; finding also, no marked irritative fever, and having, therefore, no reason to suppose that the chest was full of pus, Dr. DaCosta concluded to try and get rid of the effused serum by medicinal means, and determined not to tap the chest. The result justified the conclusion reached.

On February 1st the dulness still remained low down in the right chest. The voice was transmitted from all other parts of the lung. So too, with regard to the vocal fremitus. The breathing was also fuller and deeper.

The treatment consisted principally in the administration of the tincture of the chloride of iron with acetate of ammonium. Occasionally a Dover's powder was given at bedtime. The food was generous and counter-irritation was frequently made with iodine or blisters.

From the good results already shown, Dr. DaCosta was confident that this treatment ought to be persevered in.

The patient is at present taking a tablespoonful of Basham's mixture four times daily, and a tablespoonful of cod-liver oil thrice daily, on account of the suspected latent disease of the lungs.

The case was regarded as proving that it is never wrong in old cases of pleural effusion to give a fair trial to medicinal means first, and never to try tapping until we are quite sure that all other modes of relief are of no avail.

The *three* points particularly suggested and empha-

sized by the case were: (1) that we should be guided rather by the effects of an effusion than by the time it has lasted; (2) the value of Basham's mixture and repeated counter-irritation in the treatment of chronic pleurisy; (3) the possibility of tuberculous disease of the lung as a co-existent factor is always an additional reason for not tapping, since surgical interference should never be attempted when this complication exists.

THE TREATMENT OF FRACTURED PATELLA.

Dr. Thomas G. Morton has treated all the cases of fracture of the patella which have been brought into the wards for several years past with his improved modification of Malgaigne's hooks. In every instance the treatment has been permanently successful. Dr. Morton's first modification of the Malgaigne hooks consisted in making the hooks longer and straighter, but this improvement was shown to be of but slight advantage. Dr. R. J. Levis then made a further modification of the Malgaigne pattern, by cutting it into two separate pairs of hooks. This modification also was thrown aside after using it once. The last and most useful modification by Dr. Morton consists in cutting the hooks into two separate pairs, each pair consisting of one fixed and one movable hook. This modification will be fully explained and its benefits illustrated in an article from the pen of Dr. Morton, soon to appear in the *American Journal of the Medical Sciences.*

THE TREATMENT OF FRACTURED CLAVICLE.

Dr. D. Hayes Agnew treats fractured clavicle by perfect rest on the back in bed, with the head slightly elevated. But as the patient soon becomes restless, and as it is impossible to secure perfect quiet after the third day unless a nurse be secured to arrest every motion of the patient both by day and night, at the end of that time and when the ends of bone have, as it were, lost their disposition to get out of place, the patient is raised carefully from the prone into a sitting posture and put in restraint by the introduction of an axillary pad four inches wide and five inches long, and tapering rapidly to a point, which elevates the arm and supports the shoulder, while a long strip of adhesive plaster, 3½ inches wide (Sayre's dressing), is passed round the body with a loop to support and elevate the arm.

ANEURISM.

Dr. James Hutchinson has seen considerable benefit derived from the administration of very large doses of the iodide of potassium. In one case lately in the wards, as much as sixty grains of this drug was taken thrice daily with the effect of quite markedly diminishing the size of the aneurism. Some time since in the case of an aneurismal sac bulging from the subclavian artery, Dr. Richard J. Levis carried pieces of horse hair through the walls of the sac and so succeeding in producing partial coagulation of the blood, but not enough to materially benefit the case.

PNEUMONIA.

The routine treatment of pneumonia in the wards of the hospital consists in the internal administration of from eight to twelve grains of quinia daily, together with a moderate amount of nitrate of potassium and of the tincture of digitalis every two or three hours. Plenty of stimulus is administered. In a case recently under treatment, Dr. DaCosta gave in place of the nitrate of potassium a teaspoonful of the spirits of ammonia in water every three hours as an alkali. This use of ammonia (as an alkali) was so successful in Dr. DaCosta's hands that Dr. Hutchinson tried it in one of his cases with equally good results.

SURGICAL SHOCK

Is treated by the hypodermic injection of carbonate of ammonium mixed with brandy.

Progress of Medical Science.

INTRAVENOUS INJECTION OF MILK.—In a case of extreme exhaustion consequent on typhoid fever, Dr. McDonnell, of Dublin, made an intravenous injection of milk with very gratifying results. The operation was performed on the 22d of January, in the presence of several members of the profession. The milk was fresh drawn from a cow on the premises, and about ten ounces passed into a vein at the bend of the elbow. During the injection the pulse rose and became fuller and stronger; immediately after the completion of the operation the pulse became feeble, the respiration labored, and the capillaries congested. This stage of depression lasted about two hours, when a distinct and truly remarkable reaction took place. The patient passed a quiet night, and expressed himself as much better and stronger on the following day. On the seventh day after the operation the patient was making good progress, taking nutriment freely, although, of course, weak and exhausted.—*The Lancet*, February 1, 1879.

THE PHYSIOLOGICAL RELATIONS OF HYPOXANTHIN AND LACTIC ACID.—Hypoxanthin, or, as it is sometimes called, sarkin, is well known to be a frequent, if not constant constituent of the blood of leukæmic patients, and the means of detecting it were greatly improved by Salkowski. It remained uncertain, however, whether it was to be considered as always present in healthy blood. This, and several other points in regard to it, have recently been investigated by George Solomon, who has published the results at which he arrived in the *Zeitschrift für Chemie* (B. II., 1878, p. 94). He finds that hypoxanthin is a normal constituent of the marrow of the bones in man, and that it is also normally present in various glandular organs. It is always present in blood obtained after death, both in man and in dogs. Its presence in the blood and other organs after death in leukæmic patients affords no assistance in determining the pathological changes occurring in that disease. With rare exceptions, hypoxanthin is only found in the blood after death. Its absence from blood drawn from a vein during life is probably due to the fact that it rapidly undergoes oxidation. The same holds good of xanthin. Lactic acid is also nearly constantly present in the blood after death, and its presence in the blood of leukæmic patients after death is therefore destitute of significance. Lactic acid is absent, and probably for the same reason that hypoxanthin is absent, in the greater number of specimens of blood drawn from the veins during life. The lactic acid of the blood abstracted after death is, in all probability, the result of the decomposition of the carbo-hydrates of the blood. Lastly, hypoxanthin and xanthin are produced outside of the body by the action of the pancreas ferment on fibrin.—*The Lancet.*

PHYSIOLOGICAL ACTION OF NARCISSA.—About two years ago Mr. Gerrard, of London, extracted from the flowering bulbs of the common daffodil an alkaloid,

to which he gave the name Narcissa, and which seemed, in its physiological action, in many respects, to resemble atropia. Later, from the bulbs which had done flowering, an alkaloid was obtained, apparently similar in its general chemical characters to the first, but differing markedly in its physiological action. These two alkaloids were carefully studied by Sidney Ringer, M.D., and E. A. Morshead, M.R.C.S., and their investigations show that the alkaloid from the flowering plant: I. Dries the mouth. II. Checks the cutaneous circulation. III. Dilates the pupil, especially in topical application to the eye, the dilatation being preceded for a short time by contraction. IV. Quickens the pulse. V. In a great measure antagonizes the effects of muscarin and pilocarpin on the heart of frogs. VI. Directly applied to the frog's heart slows and weakens its contractions.

While the alkaloid extracted from the bulb after flowering: I. Causes copious salivation. II. Probably increases cutaneous secretion. III. Internally applied slightly contracts the pupils; topically applied, dilates the pupil, but less so than the alkaloid of the flowering plant. IV. Slightly relaxes the bowels. V. Causes slight faintness and nausea.

An extract of the flowered bulbs exhibits emetic and purgative properties not possessed by the alkaloids. Mr. Gerrard also prepared alkaloids from the bulbs of the common snow-drop (Galanthus nivalis), both before and after flowering, and these exhibit a complete parallelism with the alkaloids from the daffodil.—*The Journal of Physiology*, Jan., 1879.

Diabetes; Death from So-called Aceton.emia.—Kussmaul was the first to direct attention to that peculiar mode of death in diabetes to which he gave the name acetonæmia. The symptoms he observed were sudden oppression in the chest, as if there were some obstacle to breathing; violent, and for the most part hurried, respiratory acts; accelerated heart's action, and rapid coma, which lasts till death. Dr. Southey reports three cases, occurring in his own practice, in which death took place preceded by similar symptoms, and which he considered identical with the acetonæmia of Kussmaul. They were all three marked by a peculiar soporous condition, with dry tongue and cyanosis; not hurried breathing but pulmonary blood-stasis; no evidence of lung consolidation; noisy, sterterous, apoplectic-like breathing, but no paralysis; intellectual capacity retained, but exercised only under strenuous and unwilling effort. Of the precise nature of the blood-changes, which gave rise to these clinical phenomena, Dr. Southey is uncertain; but in all three cases, when the respiratory symptoms appeared, the peculiar sweet-hay halitus of diabetes was absent, and, if this halitus be due to the excretion of acetone by the lungs, the suppression of its excretion may account for the accumulation of the poison in the blood; or the sudden increase of its quantity in the blood may arrest the respiratory circulation and chemical interchanges.—*The Lancet*, Feb. 8, 1879.

Œsophagotomy.—Œsophagotomy, though an established operation, is sufficiently rare to render the following case of interest. On July 6th the patient swallowed a piece of the vulcanite plate belonging to her artificial teeth. The fragment was a flat triangular bit, half an inch long by a quarter broad, and had a piece of silver wire a quarter of an inch long projecting from one end. A pricking pain was soon complained of, in the course of the œsophagus, a little above the midpoint of the sternum, increased by the recumbent position, and in that posture accompanied by a feeling of suffocation. Nothing but fluids could be swallowed, and even these occasioned considerable pain. A week after the accident profuse salivation set in, which lasted for two days. On July 21st her voice began to fail, and by August 1st she could only speak in a whisper. The pain grew worse, and on the 16th of August the operation of œsophagotomy was performed in the usual manner. After some search the missing fragment was found, lying against the anterior wall of the œsophagus, about two and a half inches below the sternal notch, and was easily removed with a pair of urethral forceps. The upper portion of the wound was then brought together, but the lower part was allowed to gape, and was covered by a piece of lint dipped in carbolic oil. For the first forty-eight hours she was fed *per rectum*, afterwards *per vias naturales*, a portion of the food trickling through the wound, but no other inconvenience being experienced. After this the patient did well, the wound was healed by October 10th, and by November 21st the voice had become quite natural. At this date there was no pain, and no difficulty in swallowing.—*The Lancet*, Feb. 1, 1879.

Epithelioma in Kashmir.—According to Dr. Maxwell, epithelioma is much more common in Kashmir than in other parts of India or in Europe; but considerable clinical variation from the European disease is observed. Fully 50 per cent. of the cases recorded occurred on the abdomen, and 27.7 per cent. on the thighs, regions but seldom affected in Europe, where the face is affected in about one-half of all cases. Dr. Maxwell's epitheliomas usually presented the appearances of irregular, nearly circular or oval ulcers, from the size of a sixpence to that of a crown, with everted indurated edges, an irregular coarsely-granular base, of a yellowish or brick-red color, discharging a little purulent or sanguino-purulent fluid, which, on microscopical examination, was sometimes found to contain characteristic nests or globes of epithelial cells. They are of slow growth, and are much less malignant than the European epitheliomas; no case of return of the disease being recorded during ten years of observation. The lymphatic glands are rarely affected, are never cancerous, and but seldom enlarged. Age and sex appear to have about the same influence as in Europe. The disease is attributed to the kángri or fire-pot, which every Kashmiri carries about with him or her, for purposes of warmth. These kángris consist of clay pots, about four inches in diameter, encased in wickerwork, and contain live charcoal, or wood ashes. They are carried under the night-gown-shaped garment, which both men and women wear, and are often in contact with the abdomen. A portion of the wickerwork not uncommonly wears off the heated clay vessel, which, if carelessly held, may severely burn the skin of the abdomen and thighs. Many of the sores had, to the patient's knowledge, originated in burns from the kángri. It is interesting to remark the analogy between the heated clay-pipe causing epithelioma of the lip in Europe and the heated-clay kángri, causing the same disease on the abdomen of the Kashmiris.—*The Lancet*, Feb. 1, 1879.

Ununited Fracture.—An hypodermic injection of glacial acetic acid (℥v.–x.) between the ununited ends of the bone is highly recommended by Mr. Fitzgerald, surgeon to the Melbourne Hospital, in the treatment of *ununited fractures*. At first it is attended by very sharp pain; this rapidly subsides. In this surgeon's hands this treatment has been uniformly successful.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, March 29, 1879.

THE STATE BOARD OF HEALTH OF ILLINOIS AND THE MICHIGAN MEDICAL ACT.

In our last we alluded to the Illinois State Board of Health, a body created by the Legislature of that State with full power to regulate the practice of medicine within its jurisdiction. Among the edicts of this board was one forbidding what it termed unprofessional advertising. It was not long before the board had an opportunity of testing the powers conferred on it by statute. The board, it appeared, took exception to certain advertisements inserted in the Chicago papers by a Dr. Aiken, and notified him that if continued it would revoke his license. Upon this he applied to the Cook Circuit Court for an injunction to restrain the Board of Health from interfering with his license. The decision of the court was to the effect that the Legislature had given the State Board full power to regulate the practice of medicine as it saw fit, and that if it declared that certain advertisements or other practices were unprofessional, and ordered their discontinuance, that there was no doubt but that the statute gave them plenary jurisdiction in the matter. The injunction was therefore refused. The case was then carried to the Appellate Court of Illinois on the question of the constitutionality of the law creating the State Board of Health. The Appellate Court has recently decided that the law is constitutional, and confirms the board in all its powers. It will be remembered that this board is a sort of mixed commission, consisting of representatives of the regular, homœopathic, and eclectic methods of practice. The good work which it has already done in Illinois can hardly be over-estimated, and unless some unforeseen obstacle should arise, that State will soon be purged of the most obnoxious forms of quackery. The influence of the Illinois law has, however, not been confined to that State, but has been felt in neighboring States, and even here, in the arrival and settlement of many who have failed to come up to the requirements of the Illinois regulations. Let a few more Western States pass similar laws, permitting only those who have had a medical education to practise, and we will soon see New York State deluged with a class of practitioners who will find the climate of the East more congenial than the one they are obliged to leave.

The act passed by the Legislature of this State May 11, 1874, should have been denominated an "Act for the Encouragement and Protection of Quackery," for in its practical applications it has well merited this title, as a careful perusal of it in connection with some of the other laws of the State will show. Some of the laws still extant, however, appear to give the various county medical societies of the State certain powers in this matter which should not be overlooked, but be brought to an early test. The State has, however, conferred co-ordinate powers on certain sectarian societies, and it becomes a question of serious moment whether the regular societies should alone undertake the defence of the rights of the profession, or whether there should be a co-operation of all educated and legally qualified practitioners; or, again, whether it is not better to leave everything *in statu quo*. Without a fuller acquaintance with all the facts in the case we are hardly in a position to come to a definite conclusion. It is certain, however, that unless a change occurs it will soon be a difficult matter for the average qualified practitioner to earn a respectable livelihood. Those now in high position and of established reputation may not experience suffering in their own day, but to our certain knowledge a goodly number of thoroughly qualified and capable men are at present sadly straitened in their circumstances, and their number is likely to increase rather than diminish, unless something be done to prevent the increase of unqualified practitioners. As we before remarked, this matter should receive the prompt attention of the officers of the county societies. We have every reason to believe that the officers of our own county are fully aware of the gravity of the situation, and have taken the questions involved into very serious consideration; but what action they will take in the matter we have no means of knowing.

A medical bill has been recently introduced into the Michigan Legislature which appears to receive the general approbation of the profession of that State. Instead of a mixed board, like that of Illinois, it provides three separate State boards of co-ordinate jurisdiction, representing the regulars, homœopaths, and eclectics. In fact, it is little better than the New York law of 1874, and, if the bill becomes a law, Michigan will soon share with New York the distinction of being the paradise of quacks.

THE LUNG-PLAGUE.

Under the authority of a recent act of the State Legislature active measures have been taken for stamping out pleuro-pneumonia amongst cattle. All veterinary surgeons or owners of cattle are now required to report every case of the disease that comes under their care, and the animal is then either quarantined, or slaughtered. The emergency demands such energetic action, for contagious pleuro-pneumonia is an insidious, obstinate, and destructive disease which only the most persistent efforts can eradicate. These our Legislature, with a somewhat surprising foresight, has provided for.

The contagious diseases of cattle have in many respects a peculiar history, and their study may in time throw much light upon human pathology. Thus there is a unique disease in the form of the Texas, or splenic fever, of which the pathognomonic lesion is an enlarged and disintegrated spleen. This affection is enzoötic, and is analogous somewhat to remittent fever in man. Yet it can be propagated, like cholera, by the excrement, and has therefore peculiar features, whose further examination may add to our knowledge of infections.

The present lung-plague has a morbid anatomy and a clinical history which resemble, in many respects, acute phthisis. It is, however, an infectious and purely contagious disease, and has its pathological analogue in small-pox.

Contagious pleuro-pneumonia began its recorded ravages in Europe nearly two hundred years ago. It was imported into this country in 1843, and has since then spread all along the Atlantic States, from Massachusetts to Virginia. It was driven out of Massachusetts and Connecticut after a seven years' fight, but has remained in the other States to a greater or less extent. The disease has an incubation of from one to sixteen weeks, or even more. At the end of this incubation it may develop only in a latent form, giving but few symptoms.

These two facts of a long incubation and possible latency add to the danger and difficulties connected with the disease.

In a well-marked case the invasion begins with shivering; the temperature is 104° or 105°, and there is a cough. Without attempting to enumerate them all, there will develop subsequently the symptoms and signs, such as pain, loss of appetite, peculiar posture, mucous discharges, etc., which would naturally attend a high fever, and a pleuro-pneumonia of one or both lungs. The animals gradually become weaker, and may die within a week or two in the acute stage, or linger on to die later, with evidences of marasmus and purulent infection, or they may recover. The disease lasts in its acute stage from one to three weeks. Then follows either death, immediate or slow, or convalescence, which extends over from one to three months. The mortality varies largely, but on an average perhaps from a quarter to a half of the cases will die. The post-mortem examination shows a pleurisy with serous and plastic exudation, and a pneumonia with fibrinous exudation which passes through the stages of red and gray hepatization as in man. Later in the disease there may be empyema, cavities, interstitial increase, gangrene, and the various forms of lung disorganization. Either one or both lungs may be affected.

A search for the germ or even constant bacteria in this disease has been made in vain. Nevertheless there is a specific virus which is contained in the breath, the blood, and secretions. The disease may be communicated through the air, by inoculation, and by the act of coition.

The men who attend the cattle may also convey it. It can be inoculated into other animals, but probably not into man. The contagium is not so active in the early part of the disease, but even during convalescence it may infect the healthy.

No treatment will modify the course of the symptoms very much, and indeed, no treatment but the axe to the os frontalis is now recommended, except in special cases.

If a drop of the fluid squeezed from the lung is inoculated near the root of the tail, it will, as a rule, cause a local inflammation only, which will nevertheless give the animal immunity for about two years. This practice is not often advisable, however, for it may produce the full disease, and it always makes the animal a centre of contagion.

Slaughtering is the only efficient method of dealing with the trouble, and this is being done largely at present. If our State continues to act with its present vigor, we may expect to be rid of this unfortunate affection in a few years.

THE SANITARY INSPECTION OF OUR PUBLIC SCHOOLS.

The progress which has been made recently by the Board of Education in investigating the sanitary condition of school-buildings is quite significant. From the time the *New York Herald* published a report of an inspection of the public schools, last December, until the present, the pressure of public opinion has compelled an action on the part of the Board of Education which it positively refused to do before. Every person who was not a member of the board in question had good reason for believing that the sanitary condition of the schools was exceedingly bad. All suggestions bearing upon reform in such matters were ignored by the Commissioners. Medical experts spoke in vain, medical societies passed resolutions which were tabled, and even the Health Board was hampered in its spasmodic efforts at inspections. Laws which might have been made for improving the sanitary condition of the schools have been defeated because the board concluded that there was

no necessity for them. This has been the case for the past six years and until the *Herald* report was made public. At the meeting of the board, succeeding the said publication, the matter of sanitary reform was brought up, and, by a vote of nineteen to two, promptly was referred to the Committee on Warming and Ventilation, of which Mr. Wickham was chairman. This gentleman, who at first thought it was only necessary to lower the sashes in the school-rooms to secure all the necessary ventilation, had reason to change his views very decidedly as he gave time and attention to the matter. After six weeks of investigation one hundred and thirty reports were made from principals of schools regarding deficiencies in ventilation, heating, and the like. As a result of this mass of adverse testimony regarding the sanitary condition of the schools, Mr. Wickham resigned his chairmanship of the committee at the last meeting of the board, maintaining that it would take eight hours of inspection daily for some time to come to investigate the different cases properly.

The admission on the part of the distinguished commissioner, that any inspection was necessary at all, is such an important one for the cause that he may be forgiven for resigning the chairmanship of his committee at such a critical moment. From this point, however, we can count upon the chances of real progress being made in these necessary investigations, some sensible conclusions reached and some practical suggestions made. This hope is warranted by the appointment of Mr. Isaac Bell as chairman of the committee. This gentlemen has so thoroughly identified himself with the cause of sanitary reforms heretofore, and has rendered such valuable service to the cause of school hygiene in particular, that his appointment on the committee will be received with the greatest satisfaction by the profession and the public at large. We have no doubt that the inspections will be thorough, and that the recommendations which will be made will bring about desirable results. Although the inspections which should have been made during the past six years will be crowded into a period that would scarcely occupy as many weeks, it is nevertheless quite important that a report should be made with the least possible delay, not only for the sake of the school-buildings which are at present crowded with scholars, but also for those buildings now in process of construction.

INSANE ASYLUM REFORM.

The recent speech, made in the State Senate, against the Commissioner of Lunacy and his office, together with the subsequent petition to the Legislature for an investigation into the management of the State insane asylums, give ground for hope that the attempts at reform, which we have heretofore frequently urged, will at length be made. It is time that some initiative measures were taken; and therefore, although we cannot endorse either speech or petition as perfectly just, they are both very opportune.

The Commissioner of Lunacy was attacked by Senator McCarthy, who introduced a bill to abolish the office altogether, and transfer its duties to the State Board of Charities. His charges appear to be pretty well sustained, but we wait to hear from the commissioner himself before passing judgment upon them. They apply, at any rate, rather to the fitness of the commissioner for the position than to his honesty and conscientiousness. But, whatever may be decided about the incumbent, we do not believe that his office should be abolished, or that the State Board of Charities should perform its duties. These are laborious, responsible, and important; and they should not be imposed upon an unsalaried board which is already overworked. We believe, rather, that much of the inefficiency of the present commissioner's labor is due to his being alone, with limited power and limited scope of action. It is difficult for a single individual to be a thorough inspector and reformer of the institutions of a large State. He can scarcely escape the effects of a social and political environment, both of which tend to make him lax in his duties. With a board of lunacy, however, composed of several members, and with well-defined authority and duty to keep the exact state of asylum management before the public, some genuine reform can be accomplished; and not only accomplished, but made permanent. It is by such means that British asylums have been brought to their present high pitch of excellence, and it is time for the system to be adopted by us. Indeed, it is doubtful whether an investigation into the management of the asylums, however complete, will result in any permanent good, unless some such organization is created.

Of the petition which prays the Legislature for an investigation, we will only say this: Its object is excellent, for it will disclose to the public and impress upon their attention, the undoubted evils of asylum management, already known to a few. The petition itself, however, might have been made stronger, both by dropping certain very trivial charges which only increase its bulk, and by adding such other ones as would show, what is really the case, that the State is quite as much at fault in the present matter of mismanagement, as the medical superintendents, who have to accommodate their institutions to inadequate laws, meagre appropriations, and political influences.

A new Antiperiodic.—A decoction of *chestnut bark* (outside bark of the tree, 40 3; boiling water, 1 qt.; steep fifteen minutes) is extolled by Dr. R. F. Hood. Clear out the bowels with a good purge. Then let the patient take a teacupful of the decoction every three hours till the day of the expected return of the paroxysm; then wait till the 6th, 7th, 13th, 14th, 20th, 21st, and 27th days after, when repeat the same treatment for each respective day.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 26, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

DEFORMITY PRODUCED BY A BURN.

DR. A. C. POST presented two photographs, representing the deformity produced on the face of a young lady by cicatricial tissue following a burn. When twenty years of age she fell face foremost upon a fire. In consequence of the burn there was extreme eversion of the upper eyelid upon the left side, and considerable eversion upon the right side. Her eyebrows were entirely destroyed, and her forehead was covered with cicatricial tissue. A series of operations were performed, commencing December 22, 1876, the last being about two years after the first. The feature of special interest in the case, besides overcoming the ectropion and other deformities, was replacing the eyebrows by flaps transplanted from the temples, the hairs being plucked and trimmed to give them proper form. At the time he performed the operation he supposed it was the first time that new eyebrows had been formed; but he had subsequently ascertained that Dr. Pancoast, of Philadelphia, had done the same thing, but that the operation had never been published except transiently, and had not been known to the general profession.

The details of Dr. Post's case will appear in the transactions of the American Medical Association for 1878.

MYXO-SARCOMA INVOLVING THE LEFT SIDE OF THE UPPER JAW.

DR. POST also presented two photographs, one exhibiting a front and the other a side view, of a myxo-sarcomatous tumor in the left side of the upper jaw. The tumor was remarkable for its extremely rapid growth. The man, a short time before Christmas, 1878, had two or three carious teeth extracted from the left side of the upper jaw, and, at about that time, noticed for the first time that there was a tumor connected with the alveolar process. Its entire growth, therefore, had apparently taken place within about eight weeks. He was admitted to the Presbyterian Hospital, under the care of Dr. George F. Shrady, who would have operated had he not been prevented by sickness. There was obvious reason for immediate operation, the growth of the tumor being exceedingly rapid, and repeated hemorrhages having occurred, and accordingly Dr. Post performed the operation that afternoon. The specimen was presented, and consisted of a tumor which involved the entire alveolar portion of the jaw, the substance of the jaw being almost entirely destroyed. The only portion of the bone which retained its integrity was the roof of the antrum and the nasal process. There was also an enlarged gland under the angle of the ower jaw. It was the opinion of some of the surgeons that the enlargement might be merely sympathetic, and therefore the gland was not removed. There was one circumstance in connection with the operation which was a matter of some interest. At the suggestion of Dr. Briddon the nasal cavity was not opened until all the dissection above was made, and the blood-vessels secured. When that was done the head was held over the table so that the blood gravitated away from and not towards the fauces. The first incision was made just below the orbital brim, and extending to a point over the malar bone. A second incision was made by the side of the nose, but was not completed until the orbital brim was exposed, and a section made below it into the antrum with Hay's saw. The second incision was then completed by extending it around the ala of the nose, and through the middle of the lip. The bone was then fully exposed, two teeth were extracted, the alveolar process was divided, and with the handle of a pair of forceps the mass was pried out. The soft consistence of the tumor did not permit of its removal by seizing with forceps. A portion of the growth extended apparently into the cells of the ethmoid bone. As much as possible was scraped away, and chloride of zinc of the strength of one drachm to the ounce was applied as thoroughly as could be to the portion remaining. The portions of the wound not touched with the chloride of zinc were covered with carbolic acid, one to thirty. Lint was introduced to fill the cheek, and held in position by a thread, which was passed out of the angle of the mouth around the ear and over the temple to the forehead, where it was secured by adhesive plaster. The edges of the wound were then carefully united by sutures, and the patient was left in a comparatively comfortable condition.

DR. HOWE asked Dr. Post if he experienced any more difficulty in making the necessary dissection than when the incision was at once made through the lip?

DR. POST replied that the operation was not prolonged by the method, and certainly the time during which blood flowed into the nasal cavity was diminished, and also the time which the head was held over the table was diminished.

ANEURISM OF THE ARCH OF THE AORTA UNSUSPECTED DURING LIFE.

DR. J. L. PEABODY presented a specimen of aneurism of the arch of the aorta that had not been suspected during life. The history of the case was as follows: Frank Smith, æt. 38 years, a native of the United States, single, and a seaman, about three months ago caught cold. Since that time he had had cough so severe at times as to cause vomiting and shortness of breath. One month ago he began to have purulent expectoration. He had earache upon the left side for about four weeks, but there was no discharge. A few days ago he had a chill, which was followed by fever and sweating. When admitted to the New York Hospital there was slight exaggerated respiration, but otherwise the chest signs were negative. Treatment: quinine. He had a second chill. The treatment was continued, and the chills ceased. On the 21st day dry râles were heard at the apices of the lungs, and there was a small quantity of blood in the sputum. On the 22d day a systolic murmur was heard at the base of the heart. On the 25th day the patient was suddenly seized with profuse hæmoptysis, and died before anything could be done.

Autopsy.—Body anæmic, but tolerably well nourished; no marks of external violence; no œdema; nostrils and mouth blood-stained; frothy blood on face. A few loose adhesions were found over both lungs. Trachea and bronchi filled with blood. A small sac was found on the descending portion of the arch of the aorta, just below the level of the bifurcation of the trachea. It communicated with the left bronchus by a linear opening about one-quarter of an

inch long. The size of the sac was about half that of a hen's egg. It was united by firm adhesions to the root of the left lung. Blood was extravasated throughout the lung-tissue. Heart normal in size and appearance. The other organs were normal. There was no clot in the aneurism.

PYÆMIA WITHOUT EXTERNAL WOUND RECOGNIZED OR RECOGNIZABLE UPON CAREFUL EXAMINATION—MICROCOCCI IN THE MALPIGHIAN TUFTS OF THE KIDNEY.

Dr. Peabody also presented a microscopic specimen which exhibited micrococci in the Malpighian body of the kidney. It was prepared from the kidney of a patient who gave the following history:

A female patient, æt. 26, single, laundress, and a native of Ireland, was admitted to the New York Hospital Feb. 10, 1879. She had never had rheumatism. Three years ago she had chills and fever. Three weeks ago, while ironing, she suddenly "began to feel badly," and went to bed. She had chills—four or five every day—fever, and severe sweats. Her right arm, fingers, shoulder, and right side of neck and back were swollen, hot, and painful. All those symptoms lasted until one week ago. Up to that time her menses were regular, but then ceased unexpectedly. Five days ago swelling, pain, and heat appeared in her ankles and legs up to her knees. The integument was bright-red, hot, swollen, and painful. The pain and heat extended up the left thigh to the groin. On admission, her eyes were bright; tongue dry and hard; pulse, 160; temperature, 106° F.; and respiration, 55; face anxious; and bowels constipated. Skin showed patches of discoloration over ankles, legs, and knees. Treatment: brandy, quinine, and salicylic acid.

Feb. 11th.—Patient delirious, and had five loose stools. Temperature, 103° F. in morning, 106° F. at noon, 104° F. at 2 P.M., and at 4 P.M. began to rise again. Pulse feeble. Patient died at 8.20 P.M., with temperature of $107\frac{8}{10}$° F.

Autopsy.—Body not emaciated. Patches of discolored skin over both legs, and of a bluish color. Œdema of both lower extremities marked. Subcutaneous fat over abdomen about two inches thick. Small amount of reddish fluid in peritoneal cavity; no peritonitis. The diaphragm on the right side rose to the second, and on the left side to the third intercostal space.

Heart.—Muscular tissue pale, yellowish brown, and yellow streaks; post-mortem staining of valves and aorta; valves competent and aorta atheromatous.

Lungs congested and somewhat œdematous. Bronchi contained frothy mucus; mucous membrane reddened and thickened. Bronchial glands enlarged. Old fibrous thickening in upper lobe of right lung.

Spleen enlarged and softened; weight, 430 grammes; pulp of syrupy consistence.

Kidneys.—Capsule adherent in places, soft, pale, anæmic; increase of fat in cortex; several whitish streaks in pyramids.

Liver pale, anæmic, fatty.

Intestines normal.

Ovaries.—Both contained small cysts.

Uterus.—Mucous membrane softened and pale.

Veins of pelvis normal.

Brain and its membranes normal.

Joints.—Collections of pus found in right wrist-, elbow-, ankle-, and in left elbow-, ankle-, and shoulder-joints. The femoral vein on the left side contained a thrombus, extending from Poupart's ligament more than half-way to the knee, broken down into a reddish pus in places, and adherent to the walls of the vessel, which were discolored. On the right side the vein showed a normal clot and post-mortem staining.

Microscopical Examination.—Heart: muscular tissue very fatty. Kidneys: large colonies of micrococci were found plugging up the capillaries of the Malpighian tufts in places. In the *liver* many patches of pigment were found, but no micrococci.

Dr. Peabody thought the case seemed to confirm Virchow's theory that pyæmia was not a single, but a duplex disease, having phenomena dependent upon embolism, and other phenomena dependent upon absorption of some more subtle poison into the blood.

Dr. L. A. Stimson referred to a recent paper by Kocher, in which was given an account of experiments that might aid in explaining the appearance of bacteria in abscesses without an external wound. The conclusions reached by Kocher were that, in connection with wounds made in the shaft of long bones and treated antiseptically, the animals did perfectly well until fed upon putrid food for one or two days, and then the pus became offensive, and bacteria were found in the medullary canal. The same author also mentioned two or three cases of pyæmia developed in connection with strumous enlargement of lymphatic glands, and one case in which pyæmia occurred after catarrhal inflammation of the intestine.

Dr. Peabody remarked that Billroth had reached the conclusion that bacteria were simply carriers of infection; that they were found in wounds which did not do badly and no pyæmia followed, and yet after other wounds presenting the same appearance pyæmia was developed.

ANEURISM OF THE RENAL ARTERY.

Dr. L. A. Stimson presented an aneurism of the renal artery. It was removed from the body of a man, sixty-five years of age, who died of gouty kidneys. When first removed it was about one-half an inch long, and of ovoid shape. It was situated just above the bifurcation. There were also several fusiform dilatations of the branches of the artery. He had not found a recorded case of aneurism of the renal artery. There were no other aneurisms in body.

EXOSTOSIS FROM RIGHT PARIETAL BONE.

Dr. Stimson also presented an exostosis of the right parietal bone, remarkable for its density and its size. It was removed from the skull of a woman who died in the alms-house, and measured eight centimetres in length by four and a half centimetres in thickness. There was no diploë in any portion of the specimen, and there was no indication whether the growth began in the periosteum or in thickness of the bone. It was nearly as solid as ivory.

GENERAL ENCEPHALOID SARCOMA.

Dr. Stimson also presented a number of specimens taken from the body of a man forty-three years of age, who died of extensive malignant disease. In March, 1878, a small tumor was removed from his right breast by operation, and was said to be cancer. Shortly after he entered the hospital complaining of indefinite pain, which was followed within a few weeks by complete paralysis of both lower extremities and incomplete paralysis of the upper extremities. He subsequently regained control of the upper extremities. About one month before death spontaneous fracture of the left femur occurred at the junction of the middle with the lower third. He had inconti-

nence of urine, and constipation, and also several convulsions.

At autopsy, the scar left after the operation upon the right breast was found soft and smooth. There was one enlarged gland in the corresponding axilla. The lungs were studded with nodules, varying in size from a pea to a hickory nut, of firm consistence, gray in color, and there were a few vascular streaks running through them. They furnished, upon scraping and pressure, abundant milky juice. The heart, liver, and spleen were normal. One kidney contained two, and the other three small nodules. The brain contained about ten nodules, varying in size, and some of them had undergone cystic degeneration. One nodule near the surface of the brain was about three-quarters of an inch in diameter, not adherent to the dura mater but firmly attached to the arachnoid and pia. The skull showed degeneration of the same character in three places; that is, the inner table had been absorbed and the diploë was occupied by a soft brownish mass which furnished the same milky juice by scraping. There was one large lump in the lumbar region upon the right side of the spine, and several nodules scattered along the spine. The spinal cord was not involved nor was there any thickening along the spinal canal. The upper four ribs upon the right side had given place to a mass of the same material; the bones having entirely disappeared. The three lower lumbar vertebræ had undergone the same degeneration. The intervertebral discs remained in large part unchanged. The same change had involved almost all of the right ilium. The head of the right femur had undergone the same degeneration. There was no inflammation of the joint, and the cartilage remained unaffected. The left femur at the seat of fracture showed that the bone had been absorbed by the same gray pinkish material originating in the medulla and spreading downwards, but not to any great extent upwards.

INTRA-CAPSULAR FRACTURE OF THE NECK OF THE FEMUR.

Dr. Stimson also presented a specimen of intra-capsular fracture of the neck of the femur occurring in a man 61 years of age. He fell on the 7th of December, 1878, and immediately complained of inability to walk and of pain in the left hip. He was removed to the Hospital, and when Dr. Stimson saw him, two days afterwards, there was neither shortening, nor deformity, nor ecchymosis. Four days after the accident there was a slight amount of eversion and one-fourth of an inch shortening. When he next saw him, about seven weeks afterwards, there was shortening to the extent of two inches: at least the trochanter had ridden two inches above the ischio-iliac line. One peculiarity of the deformity was forcible adduction of the limb. At autopsy it was found that the fracture passed directly through the neck three-quarters of an inch from the bottom of the digital fossa.

He was told by the gentlemen who made the autopsy that the capsule was not open, that there was no ecchymosis outside, and a slight effusion inside of the joint.

Dr. Post remarked, the case of intra-capsular fracture was interesting in connection with the statement made by Sir Astley Cooper, that shortening was greater in intra-capsular than in extra-capsular fracture of the neck of the femur, and subsequently shown to be erroneous by Dr. Robert W. Smith, of Dublin. If a case was examined immediately after the fracture occurred the shortening was almost invariably greater in the extra-capsular than in the intra-capsular, except when there was impaction. In cases in which there was no impaction the minimum shortening in extra-capsular fracture was one inch, whereas the maximum shortening in cases of intra-capsular fracture was about one inch. In the specimen presented by Dr. Stimson there seemed to have been no shortening at the beginning, but a shortening of two inches at a later period.

Dr. Stimson remarked that two years ago he presented a specimen of intra-capsular fracture in which there was shortening of two and one-half inches two days after the accident occurred.

About two months ago he presented an almost pure extra-capsular fracture in which there was no shortening, and no deformity for nearly a month after the accident.

Dr. Howe thought the specimen referred to last by Dr. Stimson was not a fair case of extra-capsular fracture, because there was sufficient unbroken bone beyond the capsule to prevent any shortening for at least one or two days.

With reference to the specimen just presented by Dr. Stimson, he did not think it possible that two inches shortening could occur even in seven weeks, without rupture of the capsule in a case of intra-capsular fracture.

Dr. Stimson thought the anatomical relation of the parts would permit that amount of shortening without rupture of the capsule.

SARCOMA OF THE CONJUNCTIVA—AMYLOID INFILTRATION AND DEGENERATION.

Dr. C. S. Bull presented a specimen of sarcoma of the conjunctiva which had undergone amyloid infiltration and degeneration.

The patient was a young girl, æt. 17, of robust health. The tumor began in September, 1878, by a small swelling at the outer angle of the right lower eyelid. This slowly increased in size, without any pain or signs of inflammatory action, until by its size it began to press upon the eye and occasion some inconvenience. There was considerable deformity by the bulging outwards of the lid, but the skin was freely movable over the growth, and the orbicular muscle unimpeded in its action. On everting the lid, which was done with some difficulty, there was seen a pale, irregularly quadrilateral growth, its long diameter corresponding with that of the lid, about seven-eighths inch long, one-half inch wide, and one-quarter inch thick, with an upper surface irregularly concave. The tumor was hard and resisting, apparently bloodless, could be moved, and seemed to be firmly attached at only one point to the external angle of the orbit. An incision was made along the ciliary margin of the lid, and the growth easily dissected out. The conjunctiva of the cul-de-sac was then dissected up in all directions, and its edge brought forward and attached by sutures to the skin at the edge of the lid. The wound healed readily.

The growth on examination proved to be a sarcoma of the conjunctiva and tarsus, which had in part undergone amyloid degeneration. The epithelium in places was enormously thickened, and the sarcoma cells were of the small round character, with occasional fusiform cells and larger round cells with several nuclei. The mass of infiltration was towards the centre of the growth. The walls of the blood-vessels were also involved.

Onychia Maligna.—The free application of bismuth subnitrate is highly recommended for the cure of *onychia maligna*.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Feb. 20, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

PANAX QUINQUEFOLIUM, THE CHINESE PANACEA.

DR. H. G. PIFFARD gave a brief account of the above remedy, and of the high estimation in which it was held by the Chinese.

It is the *ginseng* root, and is regarded by the Chinese as a cure for all human ills.

SUPPLEMENTARY RECTAL ALIMENTATION, AND ESPECIALLY BY DEFIBRINATED BLOOD, AS APPLICABLE TO A LARGE NUMBER OF CASES FOR WHICH NUTRITIVE ENEMATA HAVE NOT HERETOFORE BEEN EMPLOYED.

DR. ANDREW H. SMITH read a paper upon the above subject, and gave the results obtained in eighty cases of different diseases in which rectal alimentation by means of defibrinated blood had been resorted to as an aid to stomach alimentation. At the present time there was scarcely any affection in which it was regarded as well to withhold what nourishment the stomach craved. Not only that, but disease was to be regarded as a burden which could be better thrown off by increasing than lowering the vital power, hence supporting instead of reducing treatment had been adopted, and the old antiphlogistic regimen had become a thing of the past. If it was accepted that the chances of recovery in the vast majority of cases were promoted by keeping nutrition as near as possible up to the normal standard, the question arose how could the object be best obtained? The most natural means were the best, so long as they were adapted to the indications. But if the stomach could not receive food and proper assimilation follow, it became necessary to resort to other methods of sustaining nutrition. A general reference was then made to the conditions which rendered it impossible to sustain nutrition by means of food introduced into the stomach, and special mention was made of the exhaustive paper upon the subject of Rectal Alimentation, read before the Academy by Prof. Austin Flint.

ATONIC DYSPEPSIA—WEAK STOMACH.

DR. SMITH referred first to the treatment of cases which in popular language were known as cases of weak stomach, or atonic dyspepsia. There was a circle in that class of cases which might read atonic dyspepsia produced poverty of the blood, and poverty of the blood produced atonic dyspepsia. In many cases the blood was affected first, and the stomach secondarily, such as cases of severe hemorrhage, renal disease, etc.; and in many others the primary attack was upon the stomach, such as came from diseases affecting the organ itself, or organs intimately associated with the stomach, such as the liver, etc. In both classes of cases the need in nutrition could be supplied by *supplementary* rectal alimentation; use the rectal injections to supplement alimentation by the stomach. But just there the question might arise, if the stomach was to a great degree incapacitated for absorption by the *general condition* of the system, would not that incapacity also extend to the rectum? Dr. Smith answered the question in the negative. The stomach was the centre of reflex action; with the rectum it was different, and it suffered but little from reflex disturbance. For other reasons also he believed that the rectum would continue to absorb aliment long after the stomach had refused to perform its functions. Again, it might be asked did rectal alimentation do anything more than add so much nutritive material to the blood; did it help to restore to natural nutrition? If the innutrition depended upon causes which could not be removed, the aid to the stomach must be continued, but if the stomach was simply weak, rectal alimentation was curative. Dr. Smith then referred to experiments which he had made to prove that blood was readily absorbed from the rectum. An enema of three or four ounces of blood was completely absorbed within eight or ten hours, and no trace could be found in the following fæcal evacuation. When eight or ten ounces were injected, a portion remained, and appeared in the fæces as a black mass. He believed that defibrinated blood was a fluid that was more nearly ready for absorption than any which had yet been used in rectal alimentation. The nearer the substance used approached the character of the blood, the less chance there was of imperfect conversion into blood. The quantities which he had used were from one to three ounces every two or three hours in acute cases, and in chronic cases from three to six ounces once or twice a day.

Reference was also made to experiments which proved that a warm was more rapidly absorbed than a cold fluid; therefore, it was probably best to warm the blood before injecting it. A small quantity of opium might be added, to overcome the colic, which was sometimes developed.

Asthenia was the prominent symptom in all the cases in which he had resorted to rectal alimentation by means of defibrinated blood. A large number were cases of *pulmonary phthisis*. There was marked benefit in about one-half of the cases in which it was tried, and the basis of the conclusion was the fact that there was immediate diminution of night-sweats, an improvement in the appetite, a lessening of the cough, a better color to the face, and reviving strength. If prompt improvement followed the use of the blood while the patient was taking tonics, cod-liver oil, etc., it was fair to assume that such improvement was due to the rectal alimentation. In all the cases of *simple anæmia*, with a single exception, he had obtained excellent results. In *anæmia from malaria* he had seen the *bruit* and the venous hum disappear entirely within two weeks after the beginning of injections of blood. In cases of *dyspepsia*, whether atonic or dependent upon gastritis, he had obtained good results. He had also employed it in cases of *anæmia from hemorrhage*, in *dyspeptic asthenia*, in *neuralgia*, and in *nervous exhaustion*. Dr. Smith reached the conclusions:

1st. That defibrinated blood was admirably adapted to sustaining nutrition by rectal alimentation.

2d. That from one to six ounces could be retained, and frequently a larger quantity could be used without very much trace of blood in the fæcal evacuations.

3d. That in about one-third of the cases it produces more or less constipation.

4th. That in a small proportion of cases constipation persisted and necessitated the discontinuance of the blood.

5th. That in a small percentage of cases irritability of the bowels attended its protracted use.

6th. That it was only an aid to stomach alimentation.

7th. That its use was indicated in cases in which asthenia was developed by disease not involving the large intestines.

8th. That in unfavorable cases it was capable of giving a favorable impulse to nutrition not obtained from other sources.

9th. That its use was entirely unattended by danger.

The paper being before the Academy for discussion,

Dr. Austin Flint remarked that it was of interest and importance as one furnishing facts in two directions: 1st. The class of cases to which rectal alimentation was appropriate, together with the amount of reliance to be placed upon that form of alimentation in different affections; and 2d, the kind of diet which was best suited for nourishment by the rectum.

The author of the paper had brought facts which went to show the value of the new form of rectal diet. Dr. Flint thought it very probable that different forms of diet would suit different cases; the same as in stomach alimentation, and moreover it might be well in the same case to vary the form of diet at different periods. He had not had any personal observation in the use of defibrinated blood as rectal food. During the last two years, in Bellevue Hospital especially, he had seen rectal alimentation employed pretty largely, and could make the general statement that it had proved very satisfactory. The form of diet which had there generally been employed was milk and eggs, with the addition of a small quantity of spirits and opium.

Liebig had started with the assumption that the large intestine had no power of digestion; that the digestion which took place there was always artificial; and therefore recommended a preparation which was food brought, to a certain extent, through the digestive process before introduction into the rectum. Dr. Flint thought that view incorrect, and believed the fact was, that digestion took place in the large intestine. Reference was made to a case in Bellevue Hospital, in which symptoms were present that rendered it probable that there was carcinoma of the stomach. During the periods in which it had been impossible for the patient to take food by the stomach, nutrition had been sustained by rectal alimentation, and it was an interesting fact that after rectal alimentation had been continued for two or three days the patient was able to again retain food upon the stomach.

Dr. A. E. M. Purdy referred to four cases of *nervous anæmia* in which he had used the defibrinated blood with more benefit than any other form of rectal food that was employed. Milk, Leube's extract, etc., were employed, but the most rapid and manifest improvement came from the use of the blood. He thought the best results were obtained by using warm blood.

Dr. F. A. Castle referred to a case of atonic dyspepsia, secondary to cerebral congestion, which had been under his observation nearly two months. For about one-half of that time the patient, a female, æt. 33 years, had been sustained by rectal alimentation, and defibrinated blood had for the most part been employed. He had modified it somewhat by the addition of about one gramme of hydrate of chloral to a quart of blood. No apparent change had taken place in the appearance, consistency, and odor of the blood by that addition, nor had decomposition taken place. The tongue cleared up quickly under the influence of the rectal alimentation, and there was a marked improvement in the patient's general condition, which he attributed partly to the nutritious enema and partly to a change of air and location. At first the injections were thrown up as high as possible, but subsequently they were thrown in with a syringe having a short nozzle, and the effect was equally favorable. He warmed the blood to 105° F. Dr. Castle expressed the opinion that the plasma of the blood was the portion which was most serviceable, presuming, from the tarry appearance of the passages, that the corpuscles had remained unabsorbed. The plasma contained albuminose which was readily taken up by an animal membrane, and, if that was the important element in the blood, it was reasonable to exercise care with regard to the condition of the animal when slaughtered. If the animal had not had a full supply of food before it was slaughtered, the quantity of albuminose in the blood-plasma would be considerably diminished; whereas, if the animal had taken a full meal several hours before being slaughtered, the blood-plasma would be rich in albuminose, the probable important element.

Dr. H. G. Piffard remarked that the blood of cattle did not contain the amount of albuminose with which it had been accredited. Their food was mainly vegetable, and vegetable food being composed mainly of cellulose and starch, neither of which were nitrogenous, nor could be changed into albuminose, the consequence was the serum could not contain very much albuminose. Again, the serum of the blood was simply a menstruum, first for conveying nutritious products to the tissues, and second, for carrying away the poisonous products of disassimilation. The serum containing all the products of decomposition of the tissues, products which, if retained, were certainly harmful to the animal, probably was harmful when introduced into another animal. It seemed to him hardly possible that urea, uric acid, creatine, creatinine, etc., the products of disassimilation, of death, could be regarded as useful alimentary agents. Almost the only constituents of the blood which could be regarded as possessing any special nutritive value were the blood-corpuscles. The corpuscles did not contain the products of decomposition, and if they were separated, would probably be of greater value as a nutritive agent than the corpuscles plus the serum. The separation of the corpuscles from the serum was not difficult, and Dr. Piffard thought comparative experiments should be made for the purpose of determining which of the two, the serum or the corpuscles, was the better nutritive agent.

Dr. Smith, in closing the discussion, remarked, he had no doubt Dr. Flint was correct in his opinion that a certain amount of digestion took place in the rectum. He had examined the dejecta in a few cases microscopically, and had failed to find any considerable number of blood-corpuscles that had not been broken down into a homogeneous mass of granular material. Thinking that it was nothing more than the temperature of the body that had produced the change, he subjected defibrinated blood to the temperature of the body, and found at the end of ten or twelve hours that the blood corpuscles remained unchanged. Hence the conclusion that the change produced in the rectum was something more than that due to temperature, and probably it was due to a digestive process.

With reference to Dr. Piffard's objection, Dr. Smith thought there was considerable vegetable albumen in food taken by cattle, especially if roots were fed, and that the vegetable albumen could be converted into a kind of albuminose. So far as excrementitious material in the serum of the blood was concerned, Dr. Smith thought there was not a great quantity present at any one time in a healthy animal, inasmuch as it was constantly being thrown off by the intestines, the kidneys, and the skin, and if the quantity present would harm the animal to which it was given it would harm the animal from which it was taken.

With the view to determine what the effect of rectal alimentation would be upon a healthy person,

whether or not it would diminish the desire for food, Dr. Smith had experimented upon himself, using four ounces of difibrinated blood as an enema at night. The first morning after using an injection, there was diminution in appetite, and for two days the injections gave him some inconvenience, but after that time he was not conscious that anything unusual had occurred, and, if anything, his appetite was improved. At the end of six days he found that he had gained in weight one pound, and he believed the gain was not accidental. The principal superiority which the rectum possessed over the stomach as an avenue through which nutriment could be introduced was the diminished liability to be affected by disturbing influences.

The Academy then adjourned.

OBSTETRIC SECTION.

Stated Meeting, February 27, 1879.

DR. SALVATORE CARO, CHAIRMAN.

CAULOPHYLLUM IN THE LATTER MONTHS OF PREGNANCY.

DR. SELL referred to additional cases, illustrating the beneficial effect of the concentrated extract of the root of the caulophyllum in controlling abdominal pain during the last months of pregnancy. He administered it in doses of from ten to twenty drops. He had found it useful for arresting threatening premature labor.

DOES UTERO-GESTATION EVER EXTEND TO THE END OF THE TENTH MONTH?

DR. A. C. POST referred to a case in which there was very probably a deviation from the general rule, and pregnancy continued *ten* months. The woman was the mother of several children, and had always been able to calculate with great precision the time at which she would be confined. At the end of the ninth month labor pains came on, and preparations were made for the event, but the pains ceased and she went on a full month from that time, when she was delivered of a child, which weighed two pounds more than either of her previous children, and bore the marks of greater maturity.

DR. SELL remarked that conception sometimes occurred before and sometimes after menstruation, and the length of time between those dates might be nearly one month. That fact was to be taken into consideration in connection with seemingly long pregnancies, although he did not wish to be understood as saying that utero-gestation of *ten* months' duration could not occur.

DR. POST remarked that the law allowed a pregnancy extending to ten and a half months to be legitimate.

DR. CARO remarked it was the law in Italy and France that no woman was permitted to take a second husband until nine months had elapsed after the death of her first husband.

He thought it probable that every practitioner had met with cases which indicated unusual length of intra-uterine life. Reference was made to two cases, which gave the following history:

Two young women, sisters, were married. A few days after marriage each had her menstrual period, and then the menses ceased. They dated the commencement of utero-gestation from the last menstruation. Allowance was made for the length of time between the termination of one menstrual period and the beginning of another, and yet the length of utero-gestation was ten months. One of the women, at the end of the ninth month precisely, was taken with labor pains; the membranes ruptured and a large quantity of water escaped. The pains disappeared, and she went on for thirty-six days, when she was delivered by forceps of a female child.

In the second case, the conclusion was reached that the child was ten months old when born, making allowance for the fact that intra-uterine life was longer in breech than in vertex presentations. The child when born, weighed 13½ pounds, the sutures were solid, the fontanelles were nearly closed, and it was very vigorous.

The Section then adjourned.

Correspondence.

FULLER'S TABLETS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a paper read by Dr. Robert M. Fuller before the New York Academy of Medicine, and published in THE MEDICAL RECORD, March 9, 1878, my attention was drawn to his mode of administering different medicines in tablet form. A short time later I obtained one of Dr. Fuller's plates, with the intention of trying it thoroughly. Practising medicine in a small city, where physicians carry with them in their daily rounds a pocket-case of "immediate remedies," the idea struck me as being one which would save much inconvenience, as well as secure accurate dosage. I accordingly entered into the manufacture of the tablets for my private use, and after a year's experience desire to offer some suggestions which have been learned by practice, and which may be useful to those who wish to avail themselves of this valuable contribution to our *armamentum medicum.*

Many of the instructions of Dr. Fuller have in my hands been found to be perfectly impracticable, and, if followed, might lead to an abandonment of this plan of dispensing.

His mode of saturation I have found unsatisfactory; for—1st. The medicament, in drying, appears to remain on the outside of the tablet, while within it is unaffected; 2d. Accurate saturation is impossible of accomplishment; for example, if required to medicate 50 tablets with 50 drops of a solution of atropine, $\frac{1}{60}$ of a grain to the drop, some will absorb more and some less of the solution.

A plate containing 50 holes 5 mm. in diameter and 3 mm. deep requires 60 grs. of cane-sugar and 55 grs. sugar of milk to make 50 tablets. This size of tablets is the most convenient. In the preparation of those to contain tinctures, as aconite, nux vomica, etc., I add to the sugar (and after thorough trial prefer cane-sugar to sugar of milk) the required quantity of the desired tincture. If, for example, each tablet is to contain 1 drop of Squibb's tincture of aconite, 50 drops are added to 60 grs. of sugar, and mixed intimately; adding alcohol of 95 per cent. if the mass is not sufficiently moist; allowing the excess to evaporate while stirring, if too wet. One hundred drops of the ordinary tinctures of the U. S. P. will moisten sufficiently 120 grs. of cane-sugar. Of course, any number of drops may be added, and any degree of strength given them, by using the desired amount of tincture, and allowing to evaporate to a proper consistency.

In the preparation of tablets to be medicated with the fluid extracts, a different course must be pursued. The necessary amount of the fluid extract should be thoroughly incorporated with the sugar, and there allowed to dry by spontaneous evaporation. Then reduce to a paste by the addition of alcohol, and proceed as before.

In all cases a bone or horn spatula should be used in spreading the mass upon the plate. Many of the salts that can be used in tablet form, as Hydg. bichlor., are so easily reduced, that an iron or steel spatula destroys them, besides making the tablets black and unsightly. Again, if a rubber plate is used, and glass is preferable, the crystals of sugar will cut into the plate, and, helped by the spatula, grind off little particles of the rubber, which give to the tablets a dusky appearance.

In the preparation of tablets composed of salts only, as muriate of ammonia, or chlorate of potash, the paste is much better made with water, and the addition of about 5 per cent. of pulv. acacia insures a finer pill, less liable to break down, and does not interfere with its solubility.

Masses which contain ingredients soluble in alcohol, as salicylate of soda, should be allowed to dry to the utmost extent consistent with a sufficient degree of softness for spreading. Otherwise the tablets will stick in the holes and to the punches, and it will be found impossible to remove them from the matrix.

Punching the tablets from the plate by a rounded stick, or by shaking, is theoretically good, but experience proves it laborious and unsatisfactory. Messrs. Shepard & Dudley have constructed a little machine which answers the purpose far better, and at the same time preserves to the tablet its form and beauty.

Of course, in all these manipulations, as well as in others of a like kind, a certain amount of dexterity is needed, which practice alone will secure; but when once gained, the practitioner will find the home manufacture exceedingly easy, and the use of these little tablets not only elegant and accurate, but attractive to his patients, especially children.

Alcohol of 95 per cent. is about the lowest percentage that can be used in making the mass. Water, except in the case of tablets composed of salts alone, cannot be employed, as it dissolves the sugar and makes the tablets sticky, and so diminishes the bulk that the mass cannot be accurately divided on the plate.

In dispensing, a little cotton should be placed over the pills before putting on the cover of the box.

In making the tablets attention must be paid to the bulk of the material used. For instance, in making tablets containing ⅛ gr. of morphine sulph., 100 gr. of sugar, and 12½ gr. morphine will make 100 pills, the bulk of morphine being greater than sugar.

I lay these suggestions before you, believing that they will interest the profession, and with the sincere hope that a more intimate acquaintance with Dr. Fuller's method may induce practitioners to make a trial of it; feeling assured that when once tried, it will not be abandoned for the more unreliable sugar and other "coated" pills.

Respectfully yours,

H. L. S.

Chloral as a Vesicant. Mixed with gum tragacanth into a mass and spread on paper, it produces a blister without pain when applied to the skin. It, by the absorption of a portion, causes the patient to fall asleep during its application. Its action is mild, though not as uniform as cantharides.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 15 to March 22, 1879.

Rosson, R. L., 1st Lieut. and Asst. Surgeon. Dismissed from the service of the U. S., to take effect March 22, 1879. G. O. M. O. No. 13, A. G. O., Feb. 25, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending March 22, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Mar. 15, 1879.	0	7	215	1	17	39	0	0
Mar. 22, 1879.	0	5	179	1	5	36	0	0

Tape-Worm in Cucumbers.—At a late meeting of the Academy of Sciences of Philadelphia, Prof. Dr. Leidy exhibited a specimen of tape-worm found within a large cucumber. This specimen was a true tape-worm, but of an unknown species, the ovaries being confined to the anterior extremity.

Carbonic Acid Gas.—Wet pepper, it would seem, is a powerful generator of carbonic acid gas. An English vessel had a large quantity aboard, a part having become wet by rain. The next day a Chinaman went into the hold and fell senseless. Four sailors, on going to his rescue, likewise became insensible. After ventilation of the hold, all five persons were found dead.

Frozen Sections of a Cat.—At the meeting of the Cornell Philosophical Society, at Ithaca, N. Y., Feb. 8th, Prof. B. G. Wilder showed some frozen sections of a cat recently prepared with the aid of Mr. S. H. Gage. The cat was killed with chloroform, and injected with red and blue plaster so prepared as to remain hard in alcohol. (See Mr. Gage's paper on the use of plaster for injections in the *American Naturalist* for Nov., 1878.) The cat was then supported in a natural position, with hay, and frozen solid. The sections were made with a fine saw and at intervals of one ctm. Each section was immediately cleaned and placed in strong alcohol. The position of the viscera and injected vessels is perfectly shown, and the preparations are permanent.

The Successor to the late John B. Biddle, M.D., in the Chair of Materia Medica and Therapeutics in Jefferson Medical College. The Trustees of Jefferson Medical College, at a meeting held in their rooms in the College Hospital in Philadelphia, on Tuesday evening March 18th, elected Robert Bartholow, M.D., Professor of the Theory and Practice of Medicine and of General Therapeutics in the Cincinnati Medical College, successor to the late John B. Biddle, M.D. The other candidates for the position were Drs. J. Solis Cohen, John L. Ludlow, James C. Wilson, Henry Hartshorne, John C. Reese, and

Lawrence Turnbull, of Philadelphia; Robert Bolling, of Chestnut Hill; James Darrach, of Germantown, and W. C. Reiter, of Pittsburgh, Pa. The election was very closely contested, Dr. Bartholow not receiving the necessary number of votes until the fifth ballot. The Trustees, at the same meeting, declared the Chair of Demonstrator of Anatomy in the college vacant, resolving that in future the demonstratorship of anatomy should be filled by the vote of the Trustees and not by that of the Faculty. The former incumbent was Dr. Thomas H. Andrews. The applicants for the new appointment are Drs. Henry C. Chapman, J. Ewing Mears, and W. W. Keen.

A Strange Fact.—Some fifteen years ago a workman of Marseilles lost his only child. In despair at his loss, he cut off one hand of the child and preserved it as a precious souvenir in a jar of alcohol. One month ago the man's wife was confined a second time, and gave birth to a healthy boy. Strange to say, the child had but one hand; the hand that was wanting corresponded to the amputated hand in the jar.

Hypodermic Injections of Morphine for Afterpains.—Dr. Ernoul recommends the employment of hypodermic injections of morphine, when the afterpains are exceptionally violent and obstinate. He injects $\frac{1}{6}$ of a grain of the hydrochlorate in the hypogastric or iliac region, at the point where the pain is felt with most intensity, and repeats the injection, if necessary, two or three times in the twenty-four hours. —*Gazette Obstétricale.*

Perchloride of Iron Topically to Chancres.—M. Rollet recommends:

℞. Ferri perchloridi, Acid. hydrochlor.,
Acid citrici āā ..... ℥ i.
Aquæ destil. ..... f. ℥ i.
M. Apply on limb.

Pruritus Vulvæ.—Dr. Mendenhall recommends (*Obstetric Gazette*, Dec., 1878):

℞. Sodæ biborat. ..... ℥ i.
Plumbi acetat. ..... ʒ ss.
Tr. opii. ..... f ℥ j.
Aquæ destil. ..... f ℥ viij.

M. Sig.—Soak cloths in the solution and lay them upon the external parts affected, between the labia, etc. Keep the cloths freely wetted. Inject one ounce of the solution into the vagina several times a day. When the pruritus has been subdued, apply a solution of carbolic acid in glycerine (gtt. xx. to f ℥ i.) once or twice daily.

Ergotine Hypodermics in Epistaxis.—Dr. Porak (*La Tribune Médicale*) cites three cases of obstinate nasal hemorrhage, each of which was promptly arrested by a single hypodermic of ergotine. His formula was: Bonjean's ergotine, 2,000 gmm.; Glycerine, 30,000 gmm. M. 20 drops hypodermically in the lip or cheek.

Leprosy.—Chaulmoogra oil, obtained from the *gynocardia odorata*, has been used with much success in India in leprosy, tinea, herpes, scrofula, and rheumatism. It is officinal in the Pharmacopœia of India. There is an ointment; there are, also, *perles*, each containing four minims. Both are prepared by Messrs. Corbyn, Stacey & Co., of London, England.

To make Poultices.—Dr. T. Lauder-Brunton says ("Brain"), the proper way to make and apply poultices is the following: Make a flannel bag the size of the required poultice. Fill the bag with the linseed poultice made as hot as possible, and place between this and the skin a piece of flannel doubled. Over the poultice wrap more flannel or cotton-batting.

Poisoning by Oil of Chenopodium.—A very interesting and novel case of "Poisoning by Oil of Chenopodium" is reported by Prof. Dr. Thomas R. Brown in the November number of the *Maryland Medical Journal.* One ounce and a half proved fatal *five days after* ingestion, profound coma and a very high axillary temperature attending. This article will bear careful perusal, since no works on materia medica or forensic medicine detail any fatal case of poisoning from this drug.

Cod-liver Oil Emulsion.—℞. Cod-liver oil, f ℥ iv.; Glycerine and sherry wine, āā f ℥ ij.; Hog's pepsine, ʒ iss.; Dil. muriat. acid, f ʒ j.; Sodium chloride, ʒ ij. Agitate the oil with the glycerine, and add the wine and pepsine, previously mixed, shaking all well together; then add the acid and salt. This is claimed as palatable, being slightly acid.—*Med. Press and Circular.*

Treatment of Chronic Alcoholism.—Dr. d'Ancona, of Italy, gives gr. iss. of zinc phosphide (in divided doses) daily for many weeks with not only impunity, but with decided benefit to drinkers. He claims phosphorus gives the same comfort, strength, and force as is usually derived from the accustomed potations, and produces beneficial changes in the system even when the use of liquor has not been entirely discontinued.

Code of Ethics.—Prof. Dr. H. M. Lyman, of Chicago, has made some very pertinent and able commentaries upon "The Code of Medical Ethics" in the November number of the *Chicago Med. Jour. and Exam.* He writes in a very happy vein, and fully exposes much of the absurdity contained in the "Code." We recommend our readers, and the guardians of the "Code" as well, to peruse and digest this paper.

BOOKS RECEIVED.

Transactions American Medical Association. Vol. XXIX., 1878.

Fasting Girls, their Physiology and Pathology. By W. A. Hammond, M.D. G. P. Putnam's Sons, 1879.

Epitome of Skin Diseases, Etc. By Tilbury Fox, M.D., F.R.C.P., and T. C. Fox, M.B., B.A. Phila.: H. C. Lea, 1879.

Treatise on Diseases of Infancy and Childhood. By J. Lewis Smith, M.D. Fourth Edition. Phila.: H. C. Lea, 1879.

Lectures on Practical Surgery. By H. H. Toland, M.D. Second Edition. Phila.: Lindsay & Blakiston, 1879.

Aids to Family Government. By Bertha Meyer, translated by M. L. Holbrook, M.D., and Essay on Rights of Children, by Herbert Spencer. New York: M. L. Holbrook & Co., 1879.

Atlas of Skin Diseases. By Louis A. Duhring, M.D. Part V. Phila.: J. B. Lippincott & Co., 1879.

The Principles and Practice of Gynæcology. By Thomas Addis Emmet, M.D. Phila.: H. C. Lea, 1879.

The Brain and Its Diseases. Vol. I., Syphilis of the Brain. By Thomas Stretch Dowse, M.D., London: Baillière, Tindall & Co., 1879.

Original Communications.

EYE TROUBLES IN GENERAL PRACTICE.

By HENRY D. NOYES, M.D.,

NEW YORK.

(Read before the New York Academy of Medicine, March 6, 1879.)

GENTLEMEN—Fellows of the New York Academy of Medicine: The winsome ways of our honored and courteous President have brought it about that I am to read to you a paper upon a topic which may seem to convict me of a disposition to undue assumption. I have been seduced into consenting to offer you various suggestions derived from my field of work, which you may utilize in your own practice. I am not in the least reluctant to impart any acquisitions or methods, or deductions of my own, which others can profitably share, but I shrink from a position of didactic pretension to which I am not entitled. With this plea in extenuation, and promising that my contributions will be on matters of ordinary occurrence in general practice, may I not crave your indulgence for what is the same old story which was told in the beginning, when Paradise had not yet been invaded by the obstetrician, viz., the Professor tempted me and I consented.

Thus, Mr. President, having cast upon you the responsibility, both for my appearance and my topic, I salute you and enter upon my task. To the family physician the community give their confidence in a peculiar and sacred sense. Though specialties multiply and demonstrate the necessity for their being, by successes which are only attainable by diligent devotion to small fields, it will ever be true that the family physician will be the one to whom will be made known, or upon whom it will devolve to make known, the beginnings of disease, of whatever kind; and moreover he will, as now, have in his hands the treatment of many affections to which specialists devote themselves. I come to-night begging you to accept hints which may quicken your perception of the early stages of important defects of sight, may help you in curing diseases of the eye, and may make you more capable of judging when you are in the presence of such of its maladies whose proper management calls for highly trained skill.

Let me first call your attention to the importance of recognizing at an early period in the life of children the existence of serious errors of refraction. Some of them are always congenital, viz., hypermetropia, or far-sightedness, astigmatism and cataract. Another error, viz.: myopia, or short-sightedness, is not usually congenital, but begins at the time when children give steady attention to books. It will vary in its commencement between five and twelve years of age. At the same time very young children are sometimes the subject of extreme myopia, and then its congenital character is highly probable. This deduction is also worthy of belief when persons at twenty or twenty-five years of age are found to have myopia greater than $\frac{1}{4}$.

To put this statement into tangible form, let me offer you some statistics, kindly compiled from my private records of the last nine years, by my friend Dr. Callan. Out of 1,400 cases of erroneous refraction there have been found 102 cases in very young persons who had the high and highest degrees of refractive error, viz.: 55 of myopia, or short-sightedness, 29 of hyperopia, or unnatural long-sightedness, and 18 of astigmatism. The remarks above made are most emphatically applicable to these individuals, and in lesser degree to many others not quoted. I may mention a boy, H. B., nine years old, who had myopia $\frac{4}{4}$, with vision by glasses of only $\frac{20}{100}$. This lad, in delicate health, had never had glasses, and consequently had never seen anything a foot beyond his nose. All beyond was mist and mystery. He was excessively reserved and taciturn, with no animation in face or manner—unwilling to play and undeveloped in strength. A few months' experience with glasses made him a different boy in his whole appearance and character. My records will furnish many such illustrations, but I need not consume your time in presenting them. Without holding forth the extreme cases, the argument on behalf of the little ones is sound and cogent, even though they are not so distressingly afflicted as are the worst.

To this I must add the remark that proper care on the part of parents, school-teachers, and physicians, can do much to prevent or retard the acquirement of myopia at the age when it is most likely to appear, viz.: between five and fifteen. On this point much has been written, and I merely allude to the subject.

The points which I desire to impress are, that the want of suitable aid to sight, in cases so aggravated as the above, not only inflicts upon the children unnecessary discomfort and privation of enjoyment, but it has a bearing upon their character and development which is most unhappy.

As the young mind reaches out to the surrounding world, by aid of touch and taste and hearing and sight, it reasons upon the impressions brought to it, and accepts the messages which the senses deliver, as absolute truth. Of course the reasoning and collating power is at first most feeble, but as the mind gathers force it still trusts the couriers who describe the characteristics of the world outside of consciousness; and if the messengers bring falsified, or garbled, or distorted reports, the mind must be hopelessly deceived and perverted. A child may be thought a dullard, and to have no aptitude for observation or learning; he may be counted cold-hearted and unresponsive when his face does not light up at the smile of his mother or the caress of his sister; he may be esteemed sullen or stupid; he may be counted a bad playfellow; he may be thought eccentric or peculiar because he does not behave like other children. All this and more may be the character ascribed to him because his misfortune is to have bad sight. Beside this, it is a truth in mental philosophy that exactly such a character may be fastened upon him for life, because in his young days he was cut off from enjoyment of the visible world on terms of equality with his fellows. Do we not know that dim-sighted persons are apt to be queer? If their deficiencies had been noted and corrected at an early stage of life, who can say how much more symmetrical would have been their adult character, and how much happiness society and the family might have enjoyed from them.

I therefore beg to ask that if your attention is called to young children whose traits of character excite surprise, and who are considered to be strange or deficient, that you will make inquiry whether they possess good sight, and to this I may add with not less force that the possession of good hearing is in its way equally important. For the very young, viz., those under five years of age, tests of reading may not be applicable; but happily in our day the trained observer can quickly decide by the ophthalmoscope whether any error of sight exists, and also point out

the remedy irrespective of intelligent answers or co-operation on the part of the child.

I would not hesitate to give a young child the use of needful glasses for at least such periods of time as should serve to inform his mind of the true character of surrounding objects, provided the ocular defect were great enough to obscure or pervert his perceptions. In respect to congenital cataract the same remarks apply, and I mention this condition to bring out the fact, that there may be a most serious loss of transparency in the crystalline lens, which will not in the least be visible to ordinary inspection, and the pupil shall have the normal degree of clearness and blackness. The ophthalmoscope will unerringly discover the lesion, and the proper treatment will follow. Moreover, the operation ought to be done early—in healthy children by the end of the first year.

To the same category belongs, in a degree, the subject of strabismus, the foundation of which is erroneous sight. The order of events is first visual error, and then disturbance of muscular action. It often happens that if the visual error be corrected, the muscles will redress themselves, provided they have not undergone organic shortening. If this result be attained, the cure is much more likely to be of that perfect kind, which includes the obtaining of proper binocular vision, rather than that incomplete cure which makes the eyes look as if they worked together harmoniously, but consists really in the use of but one eye at a time. I grant that the defect of sight in one eye is often incurable, and that the best result may be impossible; but this misfortune should not be an excuse for omitting to discover the visual error and its quality. I do not mean that an operation can be often avoided, but I insist that the first step is to recognize the visual error before the muscles have undergone permanent perversion. Among the most intelligent persons who bring their children for examination at the very beginning of squint, I have, in not a few instances, been able, by the timely suggestion of glasses, to aid the child's sight so much that the disposition to squint has been kept under control, and the function of co-operation of the eyes been preserved until the age arrives when an operation may be most appropriate. Such treatment is the ideal method of dealing with squint.

Another matter may be briefly touched. As with the arrival of middle life the focussing power of the eye declines so far that for the usual reading distance a sufficient reserve of adjusting force no longer exists, it is decidedly the preferable thing to put on weak magnifying glasses to take off the strain, rather than to postpone their use as long as possible, either on the plea of avoiding permanent dependence on them, or because of the fear of seeming to be growing old. Not seldom the token of need of help is found in irritation of the lids, in styes, in a sense of worry about the eyes, as well as in difficulty in seeing by evening, or inability to make out the fine print of the newspapers. Every one knows that holding the book at arm's length and drawing near to the window are infallible tokens of the coming need, and yet some will stoutly resist, until, as a gentleman said to me, they need to hold the book with a pair of tongs.

I pass now to certain other matters which are partly hygienic and partly within the domain of pathology. A large class of chronic or recent invalids are surprised and distressed to find themselves unable to command the services of their eyes as they once could. Often they are alarmed with fear that organic mischief has befallen their sight. No persons present this symptom so frequently as do those who suffer from uterine disease. It seems to matter little what may be the special form of lesion of the female generative system. They suffer from enfeebled endurance of accommodation, and equally feeble power in the extrinsic ocular muscles. They do not so much complain of indistinct or blurred vision, as of pain in attempting to read or to sew, etc. The pain may come after a little effort, or it may be constant. In extreme cases the patient cannot look in the face of one with whom she is conversing without exciting neuralgic pain. This condition is very widely prevalent, and it must have forced itself upon the notice of every observing physician. So, too, when persons are recovering from any severe illness, such as a fever, or from protracted exhaustion, or after prolonged lactation, or watching with invalids, or great loss of sleep; when there has been much grief and weeping, or after severe mental strain; also as a consequence of masturbation, or after severe loss of blood, or in severe or chronic dyspepsia, impaired eye power is pretty sure to appear. I only give utterance to your own experience when saying this, but permit me to go a little farther and say that while in the above situation the essential condition to recovery lies in restoration to vigor and sound health and habits, certain additional points are worthy to be remembered. One is, that to such people graduated use of their eyes, beginning with short periods and advancing by small additions, is a valuable means of helping them develop and recover their ocular energy. We know this plan of treatment under the name of Dyer's method. Similar to this is the use of prisms to help the power of the ocular muscles, as dumb-bells call forth the strength of the arms and shoulders.

Moreover some of these patients are destined to remain chronic invalids. I utter no malicious sarcasms upon my most esteemed friends the gynæcologists, but all their patients do not get well. To such women who pitifully implore the oculist to give them some solace for the weary hours upon the sofa or in the house, it is of the highest importance to discover and to note deviations from normal states of vision, which to persons in health are of absolutely no moment. Slight degrees of far-sightedness, trifling degrees of astigmatism, must in these cases be accurately corrected by glasses, and often the relief is most keenly appreciated. So, too, faintly tinted glasses are of use, and perhaps the most common relief is found in combining weak magnifying-glasses with abductive prisms. Such persons complain of glaring light; they almost always have irritable and congested conjunctival membranes. Treatment of their eyelids and regulation of the light is of no small value. The great necessity of carefully regulating all their hygienic conditions and doing this with detail and precision I need not dwell on.

Above and beyond these cases in pathological significance are the cases of intense hysterical photophobia, or intolerance of light. Fortunately they are not frequent, but they make up in malignancy often what they lack in frequency. In some of them there will be real optical error, or perhaps erosion of corneal epithelium, but behind these lesions is a perverted nervous system, a weakened moral nature; sometimes we find the invalid's eager craving for sympathy and condolence, the gratification of a strange passion for being pitied and coddled and made the centre of a worshipping and ministering family circle. Such patients call for great firmness, tact, and penetration. They are like the bedridden girls whom no arguments can convince that they are able to get up if they will. I for a long time kept in my possession a

quilted mask made of pasteboard, cotton, and thick cloth, constructed to go from the top of the head to the mouth, which was worn like a visor by a patient who would not allow me to take it off or have the least glimpse of her eyes. By putting her under chloroform I convinced her she could face the light and I robbed her of her visor. For a certain period she was made much better, but again relapsed.

To return to the eyes of weakly people who are only too anxious to comply with suggestions aimed for their good. In the first place, they need much comforting and encouragement. They should always be addressed hopefully, not to deceive them by promises of perfect recovery, but that they will at least attain a degree of ocular function which they can rely upon for permanent use, and that they must have care for eye strength as for any bodily strength; that they will not lose their sight, and that if they get well in health their eyes will in the end be restored. Moreover, if they have had to use glasses they will probably put them away, as other patients get rid of canes and crutches, and plaster-of-Paris jackets, and the whole pitiful list of surgical testimonies to our physical frailties. To persons who do not enjoy good health certain precautions in the use and exposure of their eyes are important. Ladies who suffer from painful menstruation should not read when lying in bed at the time of their menstrual flow. Reading while lying down is almost always trying to weakly persons, because the usual method of directing the eyes is interfered with, and the ocular muscles do not act in the combinations and proportions to which, for reading in the erect posture, they are habitually adapted. To such persons, thick veils or dotted veils, or the so-called glistening illusion veils, or heavy crape veils, cause worry and retinal irritation. The modern styles of bonnets leave the eyes without any protection from the sun and wind, therefore umbrellas and parasols, or colored glasses, become needful to the sensitive. To such it is hurtful to read in railways or carriages; and to them an atmosphere of smoke, or the air of an ill-ventilated or crowded and brightly lighted room is offensive; ofttimes the viewing of a multitude of persons, or a walk along a crowded street, is painful, just as bright and flashing light or strong colors are disagreeable.

Let me here allude to the grave mischief engendered in closely packed dwellings, where no proper supply of pure air is furnished, such as in tenement-houses, over-crowded asylums, and poor-houses. In them the degeneration of health, besides manifold other ills, may bring on granular conjunctivitis. The follicular deposits and hypertrophy of tissue soon find occasion for sudden aggravation in a slight cold, and then the contagious secretion is carried from one to another until many fall victims to the miseries of this chronic disease. One who has seen much of eye disease feels most intensely how sad is the future of the tenement-house poor who contract granular conjunctivitis.

Having touched upon the subject of granular conjunctivitis, let me call attention to the loose way in which this condition is sometimes asserted to exist. Many times have I known a state of simple hyperæmia declared to be granular lids, and the disease treated, perhaps, with sulphate of copper in crystal. Let me only say that it is essential to granular conjunctivitis that there be thickening of the membrane, either in minute globules, or over an extended area. Moreover, that the theory of treatment is to stimulate the tissues to absorption of the morbid material, and not to actually destroy and remove the morbid thickening, as is done in ulcers of the skin and in granulating wounds. Hence, the stimulating remedy must not produce an excessive action. But the details of this subject would lead us too far for me to enter upon them.

Some words about conjunctival hyperæmia of the lids will, I think, be fitting. The cases I have in view are not severe; there is often nothing wrong to be seen until the lids are turned over, and then a varying degree of congestion is all that appears. For this, an astringent is usually ordered, either an outward lotion or drops, and among the latter, perhaps the most frequently ordered is the very worst in my esteem, viz., sulphate of zinc, usually gr. ij. ad ℥ j. It is possible that this slight local trouble comes from cold, or overwork, or outward irritation; in such cases, the treatment will often be effective.

But I have to insist strenuously upon the fact that a large proportion, and I believe a considerable majority of such cases are connected with various forms of optical or muscular error, viz., all the forms of defective refraction and weakness of sight, and the cases of partial or incipient cataract. Not even are the amblyopic affections excluded. The explanation is most simple, viz., that whatever causes difficulty of sight, excites irritation of the conjunctival vessels. The symptoms are burning, dryness, heaviness, stickiness, scratching of the lids, and other similar sensations. Now the cure for these cases is to ascertain the cause; if possible, remove it, and also apply the soothing or alterative topical remedies.

Besides the above causes of conjunctival irritation, there are some which are to be looked for outside of the eye. One which I would most urgently bring forward is chronic nasal catarrh. In our climate this is one of the most common conditions, and it extends its hurtful influence upon all the special senses except touch. Hearing, smelling, taste, and sight are all more or less damaged. To the eye the mischief comes in troubles of the lachrymal passages, and of the palpebral and ocular conjunctiva. For six or eight years I have been compelled to treat nasal catarrh with energy and regularity, in order to enable me to cure chronic conjunctivitis as well as chronic and acute otitis media.

Another lesion, which has similar affiliations, is marginal blepharitis, the ophthalmia tarsi. True, this may be only a local and idiopathic affection, but my observation long ago taught me that the persons who had it were often subjects with optical errors, or with nasal catarrh. In this I quite agree with my friend Prof. Roosa, who has written upon the subject. The local treatment by the application of a sharp point of nitrate of silver to each little ulcer, followed up by cleanliness and a stimulating yellow oxide of mercury ointment, will readily cure the disease; but to keep it cured requires correction of the optical error, in case this should exist.

Let me offer a few hints on treatment of conjunctivitis. I do not pretend to set forth what ought to be done in all ordinary cases, but simply speak of certain special and rather unusual conditions. The form which occurs in new-born infants is, in the vast majority of cases, easily removed by luke-warm water, or by such simple astringents as alum or borax. But the decidedly purulent form, with puffy lids and creamy discharge, cannot be safely left to such means. I would not speak to a point which seems so self-evident, had it not been suggested to me by the remark of a medical friend that, having attended 1,500 confinements, he had never seen but three or four cases of bad sore eyes among babies, and when he asked me to assist him in caring for one such bad case, he was con-

siderably surprised at the treatment which I instituted. The lids must be thoroughly everted, and to the red and swollen membrane, as it unfolds, a solution of nitrate of silver, five grains to the ounce, must be well applied by a brush; both lids must be thus treated, and the application repeated as the discharge again becomes thick, viz., in from twelve to twenty-four hours. Meanwhile careful wiping away of the secretion, the use of an alum solution, and greasing the skin to avoid excoriation are in order. The caustic to the everted lids, in severe cases, is what I have to emphasize, and this, in *bad* cases, will be ten grains to the ounce, or be the mitigated stick, one part to two. Should the cornea be threatened by perforation, other and skilful advice ought to be summoned, as paracentesis, etc., may be needful. Again, in the violent forms of purulent conjunctivitis in adults, whether gonorrhœal or not, besides continuous application of iced water and the use of caustic, I lay great stress on the relief of the pressure of the swollen lids by deeply and extensively incising the outer commissure—to do this when the lids are much swollen—and to repeat incisions in this way as the wound grows together, and the œdematous conjunctiva threatens the vitality of the cornea. I am most deeply persuaded of the value and imminent necessity of this proceeding in severe cases.

For the great number of cases of decided conjunctivitis nitrate of silver is the best remedy, and rarely, in my judgment, does it need to be more than gr. v. or x. ad ℥i. But cases arise in which this remedy fails to cure. We find this fact among old persons, and in hydræmic subjects. I have also seen it in young infants. In fact, however, it is no easy thing to thoroughly turn the eyelids of a baby of a week old inside out; not a little skill in manipulation is often necessary to do it well and with unnecessary pain. The normal way in which the nitrate of silver acts is as follows: the caustic makes a slough of the epithelium; this is cast off with serous transudation, and the unloaded vessels then find relief, and the emigration of pus-cells is abated. Such is the process in the vigorous, and when the pus again appears in quantity, the application is renewed; but to the feeble, and especially the old, the tendencies are to less vigorous action, and the recrudescence after the slough comes away, is less perfect. In fact, the formation of pus may be made more abundant than before. For such cases the remedy is tannin in glycerine, gr. xx. to lx. ad ℥i., painted upon the everted lids. Its action is most satisfactory and direct. So, too, for œdematous inflammations, with little purulent or mucous secretion, but with the tissues loaded with serum, a solution of tannin in water will sometimes act like magic. Such, at least, was the testimony of one of our most distinguished surgeons, who enjoyed opportunity for personal experience of this bit of therapeutics.

May I say a word about treatment of inflammations of the cornea. A well-settled axiom is, that during the acute period of trouble, stimulation is out of place; but as the stage of intense hyperæmia, intolerance of light and pain abates, the eyelids may, with advantage, be touched with solution of nitrate of silver gr. iij. or v. ad ℥i. It is in the subacute stage of the phlyctenular form that the yellow oxide of mercury gr. ij. vel x. ad ʒi. of vaseline or amylo-glycerine sometimes does admirably. But in acute periods, atropine and warm fomentations are the proper thing. I am not attempting a resumé of this topic, but I wish to lead up to three suggestions, viz.: that the fluid extract of conium can be used with great benefit, notwithstanding some dangerous results have been reported from overdoses, as a means of overcoming the palpebral spasm, which is a great aggravation of the corneal irritation, and that bromides are also clearly indicated in the same condition.

Very severe cases would be likely to demand experienced advice, and I may say that paracentesis of the anterior chamber and sometimes iridectomy I have found of immense use in some bad cases.

A combination of severe keratitis with iritis is an unhappy condition, and the bad cases will seldom yield to anything short of iridectomy. As to purulent inflammation of the cornea,—this occurs from direct injury, as by a bit of stone or steel, or as a result of great debility, or from anæsthesia of the cornea. On the last head I beg to remark that an imperfect degree of sensibility in the cornea is, I have lately found, much more common than is usually supposed.

In all these conditions, if the cornea be deeply or extensively infiltrated with pus, nothing can compare in efficacy with the free division of the structure horizontally across the cornea with a fine Graefe's cataract-knife. Precede and supplement this proceeding by atropia and steady continuance of warm fomentations, and the damage suffered by the eye will be far less than would otherwise take place. I could fortify this assertion by many cases, and I emphasize it as confirmative of the practice first introduced by Prof. Saemisch, of Bonn. As to cases of pus in the anterior chamber, with infiltration of the cornea, the lesser degrees need no surgical interference; but when the plastic or purulent material rises to occupy the lower third of the cornea, I decidedly advocate its evacuation by a free paracentesis. This is a painful operation, and may be worthy of the administration of ether. In these cases the wound heals at once, and possibly the hypopyum may form again and need a second discharge. Whereas, in suppuration of the corneal substance, the wound above advocated continues open for days and allows the fluids to drain away, to the great relief of the eye. At a later time, when the eye has recovered, an iridectomy will confer valuable sight.

I must, perhaps, guard myself from misapprehension of my meaning as to the rules of treatment, by saying that general measures of a supporting and tonic kind, generous diet and stimulants, rest in bed, avoidance of light and of irritating causes, are all supposed to be made to contribute to the desired result.

Keratitis in children is always a distressing and tedious affection. Whatever its form, the severe symptoms are the extreme dread of light, and pain, while there is always more or less danger to sight. The great difficulty of treatment is how to get local medication into and upon the eyeball. If the child refuses to open the lids, and they are often by reflex irritation incapable of doing so, there is little use in trying by the fingers or by elevators to separate them. The attempt inflicts great pain, and the view of the eye is unsatisfactory. After the disease has lasted long it is very common to find an ulceration of the skin at the outer commissure, and this is torn apart whenever the lids are forced open. This is a serious aggravation of the blepharospasm which the corneal inflammation first excites. The great remedy for extricating one's self from the embarrassments of treatment, and for giving relief to the suffering child, lies in the administration of chloroform. It was long noticed by myself and others, and Mr. Hutchinson, of London, has, with his customary acuteness, written upon it, that to give chloroform not only enables the physician to see and treat the eye, but by its narcotism has a permanent good influence on the disease

by abating the nervous spasm. Therefore, when a child has acute corneal inflammation, and buries its head away from the light and obstinately shuts up its eyes, give it chloroform so as to bring on the first quieting influence; then the state of the cornea can be inspected, an atropine solution can be freely dropped in, the lids can be everted, and to their congested conjunctival surface a solution of nitrate of silver—gr. ij.–v. ad ʒ i.—may be applied; or, in the later stage of the malady, the yellow oxide of mercury ointment —gr. ij.–v. ad ʒ i. of amylo-glycerine—may be used. Besides this, seize the opportunity to apply a pointed crayon of pure solid nitrate of silver to the skin-ulcer at the outer commissure, and freely apply it also to the abrasions which will often be found about the nostrils, lips, and chin. From these latter abrasions the scabs must be forcibly wiped away; and though the raw surfaces and fissures will often bleed, the caustic should be fully applied and the parts afterwards dressed with simple or medicated cerate. I merely give these hints as to the handling of a very common and troublesome class of cases, without attempting to depict the full treatment which must be instituted under the various stages and conditions and phases of the disease. This may be learned from the usual text-books.

Likewise may I offer some hints as to the management of iritis. For my purposes I may enumerate four principal causes of iritis—injury, syphilis, rheumatism or gout, and gonorrhœa. As to traumatic iritis, I may say in general, that the management consists in rest, exclusion of intense light, lotions of cold water and atropia, with or without leeches. The rheumatic or gouty form has these features, that when fully established it yields very slowly to treatment; that it exhibits little plastic exudation, and often is of the œdematous variety; that the patients often suffer much pain, and that the local application will generally have to be lukewarm, and will in any event not be well tolerated; that atropine must be used with moderate vigor, sufficient to dilate the pupil; and that leeches often do much good in acute cases, while paracentesis is not seldom in bad cases a valuable resort. In this class of cases, constitutional treatment is of high importance, and this will usually be of the alkaline variety. As to the merits of salicylic acid I cannot speak. Iodide of potassium and colchicum sometimes do good service, but I have found the alkalies of the greatest use. Frequently has it been possible, in subjects prone to rheumatic iritis, to abort an attack by full doses of sal Rochelle, or liquor potassæ and Vichy water. With some persons attacks are very frequent, and they depend on imperfect action of the excretions. I make it a point with such patients to insist on a great deal of outdoor exercise, on careful attention to the skin as well as to the kidneys, and occasional Russian baths. Gonorrhœal iritis is only a sub-variety of the rheumatic form, and I mention it to indicate my conviction of the potency of urethral inflammation to be the cause of iritis as well as of rheumatism. I could cite cases which have proven this relationship, and that the control of the urethral trouble was necessary to the speedy cure of the eye trouble.

Finally, upon syphilitic iritis I beg to say that in the moderate cases, the local or atropine treatment is the most essential. As to the type of the inflammation, there may be every variety of pathological lesions; but when a case of iritis exhibits a rich amount of plastic exudation, it is pretty surely syphilitic. I emphasized the use of atropia. The solution should be four grains of the sulphate to the ounce; the frequency must be governed by its ability to secure expansion. Once every two hours, or four times an hour three times daily, or with any frequency needful to dilate the pupil, is the rule. The necessity of using it vigorously is too often not appreciated. The obstacles to dilatation of the pupil are, the difficulty of forcing any solution to pass through the saturated cornea by endosmosis, the fulness of the anterior chamber, the reluctance of the iritic muscular fibres to contract because the vessels are congested, and the mechanical opposition of the adhesions to the lens. The iris rests in contact with the front of the crystalline lens, both when the pupil is contracted and when it is dilated; hence, whatever the degree to which the pupil may expand, adhesions can occur and offer resistance to the remedy. The efficacy of the remedy is often enhanced by local depletion, viz.: by four leeches to the temple, placed far away from the eye. The reduction of congestion of iris vessels is favorable to the endosmosis of atropine solution. Unhappily, certain disadvantages attend the vigorous use of atropia. It causes conjunctival irritation with some people, although the solution be wholly free from acid. Some persons experience the symptoms of constitutional poisoning before the requisite local influence is secured. The substitution of daturine has sometimes served to circumvent this difficulty, and we are now in possession of a new agent called Duboisia, of which only the extract has yet come into this market, and which is asserted to be free from some of the objectionable qualities of atropia. On this I cannot offer any experience.

I strongly emphasize the beneficial change which always passes over a case of iritis, when success crowns the effort to enlarge the pupil to the uttermost. Let this effect be attained, and the vast majority of cases are speedily relieved. Should this not be possible, a different future is to be expected. Extensive pupillary adhesions will surely entail protracted inflammation, and cause mischief to sight, not only by the obstruction of the pupil, but by the accompanying haziness of the vitreous and lesions in the choroid. So disastrous is this condition that iridectomy may be done, and even *must* be done, during the height of the inflammation, and with greatly beneficial effect. Adhesions of the pupil are the great cause of obstinacy in iritis, and of the repetition of attacks.

While so much has been said of the local treatment, I am bound to advert to the constitutional treatment of syphilitic iritis. Do we need it to control the inflammation? In two conditions I think we do, viz., where there is a large amount of plastic exudation coming out in yellow masses on the surface of the iris, and also in certain cases of total pupillary adhesion. Under these conditions I recognize the need of using mercurial inunction vigorously, and can testify to its ready and happy influence. But for the common run of cases the constitutional treatment is employed only because the patient has secondary syphilis, and is not an essential factor in curing iritis. Therefore we do not ptyalize every case of iritis *secundum artem*, as was formerly held to be sound practice. But we administer the constitutional treatment according to the rules which the state of the general system imposes. Let me here remark that while iritis usually comes among the events of secondary syphilis, it may also appear during the tertiary stage of the disease.

A few words now on diathesis as recognizable in inflammations of the eye. It was the nosology of former times to designate a scrofulous ophthalmia,

and rheumatic ophthalmia, and catarrhal, and syphilitic, and abdominal ophthalmia, etc. We no longer use these terms except as they indicate our views in causation; but they have no meaning whatever as descriptive of any special phases of disease in the eye. It is impossible to pronounce in a given case with any better accuracy than good guessing, what is the constitutional condition associated with an inflammatory disease of the eye. It cannot be asserted, except in a vague way, that one case is scrofulous, another rheumatic, and another syphilitic, except by getting information from other symptoms. Of course I admit that weakly patients, and those who are badly nourished or cachectic, will have a type of inflammation differing from that of the robust, but beyond this general statement it is not safe to attempt to refine.

I grant that for successful treatment the constitutional condition must be accurately appreciated, but we learn this by interrogating the system, and not by looking only at the eye.

I want to say something on the subject of sympathetic ophthalmia. Every physician is consulted respecting cases of injury of the eye. All know that instances occur where the remaining eye subsequently is inflamed, and may be lost through an injurious influence exerted upon it by the damaged eye. It is of the highest importance to know first what classes of injuries are likely to exert this pernicious sympathy; and secondly, what are the early signs that it has begun.

The injuries most prone to cause mischief to the second eye are: 1st, when foreign bodies enter and lodge in the organ; 2d, when the eye is badly lacerated, especially in the region just behind the cornea; 3d, when the crystalline lens is dislocated; or 4th, when the iris is extensively caught in a wound or cicatrix. The time when such trouble may begin can be as early as three weeks or six months, or as late as two years or twenty years. The eyeball likely to cause such mischief is one in which attacks of inflammation now and then occur, and, above all, one which is sensitive to slight pressure of the finger. If a damaged eye which has recovered from the first effects of its lesion cannot bear moderate pressure without causing pain, that eyeball or stump ought to come out.

What are the *symptoms* of sympathetic trouble? They are of two general classes; first, those which implicate the general usefulness of the eye; secondly, signs of inflammation of the iris, choroid, optic nerve, and retina. As to the first, the person complains that he cannot use his eye, it easily wearies, it runs water, it is sensitive to light, yet its vision may be perfect. There may be conjunctival hyperæmia, but no other lesion. Unless some clear cause for complaint can be found in special defect of the eye to account for these symptoms, such as astigmatism or far-sightedness, etc., the damaged eye must come out to protect the good one. But a more subtle and dangerous condition is a low form of iritis, called serous iritis, which will not give pain, and not command attention, especially among children and ignorant persons, although it will somewhat impair sight. A more intense degree of inflammation, an irido-choroiditis, may occur, and these are severe forms of lesion which are sure to attract attention. For these patients a grave responsibility must be assumed. In some of them the enucleation of the injured eye seems to excite rather than allay the sympathetic trouble—such is the last scientific utterance on this subject (see Mauthner, Vorträge, etc., 1879); and reflection on some cases, in my own experience, inclines me to accept this statement with respectful attention. For other cases enucleation must be practised at once, and it banishes the dreaded disease as by magic. For the advanced cases enucleation is impotent; it does neither good nor evil. Hence, in a juncture so critical as when a fellow-being asks for counsel as to what is to be done to preserve him from the misery of total blindness, a large experience and skilled observation must be the basis of sound advice. As a practical suggestion it may be said that, when a person receives a severe injury of one eye, and he live at a distance from a good eye surgeon, or if he be ignorant, or a child of ignorant parents, it is safe to take out the damaged eye at once, and thus protect the other from any baleful influence. For those better circumstanced or properly observant of themselves, some discretion may be permitted; but they must be stringently warned to present themselves for inspection on the slightest token of trouble.

One other topic remains before I close. It is not uncommon for cataract in old people to be confounded with glaucoma, and *vice versa*. It is true that cataract is the more frequent disease, but it is not fatal to sight as glaucoma. Now, the latter often seems to the naked eye to be just like cataract. The distinction between them can to some degree be made out by any physician, and is to be found by noting that the eye which has glaucoma is hard and resists the pressure of the finger far more than the normal eye, or than a cataractous eye. Again, the field of vision is invaded and partly cut off, especially on the nasal side, by glaucoma, as does not occur in cataract. How shall this be discovered? Examine each eye by itself, having the other shut. Let the patient look at your eye, and, while he fixes his direct gaze upon you, let him note whether he can see the hand held up at his temporal side, and afterward on his nasal side. On the outer side, the hand should be visible to an extent of almost 90 degrees; on the nasal or medial side the limit of the field of view is from 40 to 45 degrees, being bounded by the height of the nose. Now, in glaucoma, while the direct vision suffers more or less, the lateral vision is also very markedly impaired. Especially does this take place on the nasal side, and to this symptom I invite special attention. By very simple experiment it will be found that absolute blindness exists over a space on the nasal side of the field of vision, in which a cataractous patient will be perfectly able to see light and perhaps also objects. The real diagnosis of glaucoma will need the help of the ophthalmoscope, and that is of no use to the untrained and inexperienced observer. Another point is perhaps worthy of note, viz., that while in glaucoma the pupil is very apt to be smoky, this may be thought to be evidence of cataract; whereas a smoky pupil is the natural condition in eyes of old persons.

I can only ask your attention to the possibility of making the false diagnosis alluded to, and leave the topic to your own reflection.

Gentlemen, I may no longer trespass on your patience. Very much more might be said, and I leave to those who follow me, to indicate what I leave untouched. These suggestions are tendered with much distrust, but with a genuine feeling of good-will and desire to aid in our common work of promoting the happiness and abating the misfortunes of our fellow-beings. This cluster of fruit from the small plot which I cultivate, is placed in your hands as the expression of my fellowship with you, in the husbandry of science and humanity, as well as a testimonial of my most sincere regard. Would that the gift were more worthy of your acceptance!

ON THE RELATION OF SEWER-GAS TO TYPHOID FEVER.

By GEORGE HAMILTON, M.D.,

PHILADELPHIA.

(A paper read before the College of Physicians of Philadelphia.)

The subject of the paper for this evening cannot but be regarded as one of much importance, as well in relation to medicine as in reference to the public at large. As you are all aware, the attention of the community, in general, has for a few years past been drawn in an unusual degree to the subject of sewer-gas as an agent in the production of typhoid fever, and recently it has been declared by several writers to be the most potent and common cause, not only of this fever, but also of scarlet fever, and, in a special degree, of diphtheria. As a consequence of these declarations, a feeling of anxiety and alarm has manifested itself, greatly disproportionate to what an unbiassed and calm consideration of the subject will admit, or an examination of the reports of the Board of Health will justify. That those members of our profession who have endeavored, so earnestly and persistently, to impress upon the mind of the public, as well as of the practitioner, that sewer-gas is the most potent and common cause of typhoid fever in Philadelphia, have acted conscientiously, no one need doubt. To their excellent standing in the profession, and to their zeal in promulgating the views alluded to, is, in great measure, due the success that has attended their efforts in this direction. So successful, in fact, have these efforts proven that probably one-half of the profession in this city, and a still larger proportion of the citizens who may have given some attention to this subject, have been induced to accept the views so urgently pressed as a finality. It is, however, to be remembered that very little in opposition to the opinions stated has been attempted, and it may be that the present will prove a futile effort to stem the actual current of professional and popular feeling upon this subject. Nevertheless, we feel quite assured that a large majority of practitioners who have had, at the bedside of patients, the most frequent and abundant opportunities for the study of typhoid fever, will reject the evidence hitherto offered to prove that sewer-gas is the most potent and common cause of typhoid fever in Philadelphia, or elsewhere, as utterly untenable, and as in direct antagonism with the facts and figures pertaining to that malady.

An observation or two, in reference to the more acute aspect of disease as it occurs in the country, compared with what is seen in city practice, may here be admitted, bearing more or less directly upon the subject before us. The late Dr. Joseph Parrish, eminent in citizenship and as a practitioner, when lecturing, in 1830, before a summer class of students upon bilious remittent fever, narrated his sad experience of this disease, as witnessed in consultation with country physicians within a circuit of about seven miles of the city (sometimes in Pennsylvania, at other times in New Jersey), by declaring that, in frequency in proportion to population, and in violence and fatality, it greatly exceeded anything he had ever met with in Philadelphia. The same remark was made by him in regard to dysentery, and was fully verified by the writer when, a few years later, he began practice thirty miles distant from the city. The accounts received from time to time from country physicians regarding the disastrous epidemics of the diseases mentioned, and, in an especial degree, of diphtheria, are doubtless familiar to you.

Some statements, made by the writer during the discussion that followed the delivery of the paper of Dr. Keating upon the relation of sewer-gas to typhoid fever, must here be repeated, as some who are now present may have then been absent. Centreville, my location in the country for more than ten years, was upon the ridge separating the Brandywine and Red Clay Creeks—distant seven miles from Wilmington, seven from Kennet Square, four from Dupont's, and eleven from West Chester. The surrounding country, rolling or hilly, abounded in nearly every direction with springs of fine water. In this rural section began my first bedside experience in typhoid fever, and the occurrence in my practice of four cases of intestinal perforation, in the space of twelve consecutive months, may but too well attest the character of the prevailing epidemic. It was not, however, until after five years' practice in this vicinity that typhoid fever developed itself; the usual form of fever in earlier years of practice having been bilious remittent, which, like the typhoid, at times assumed an epidemic character, and proved nearly as fatal as typhoid, while in other seasons but few cases occurred, the local conditions remaining essentially the same from year to year.

The change from bilious remittent to typhoid fever was, naturally enough, not abrupt, some of the symptoms of the former gradually giving place to those of the latter. In mode of progression there was a close resemblance between them; either disease showing itself upon an elevated plain, on the brow or slope of a hill, or in the vale below, with perhaps a slight preference for the latter; while the mansion of the opulent farmer would, in turn, be visited with the home of the humble cottager.

Two remarkable instances of typhoid fever, mentioned in the discussion before alluded to, cannot, for the reason then assigned, be passed in silence. One occurred in the residence of a wealthy farmer, the family consisting of eight persons, of whom only one, the mother, escaped an attack. Six were severely affected—three of them dangerously—while the seventh, a colored servant, suffered but slightly. Now, the important point in the history of these cases is revealed in the fact that the disease did not originate upon the premises. A son, about nineteen years of age, had been absent several weeks on business in Maryland, forty miles distant from his father's residence, and from thence was brought home sick, and, apparently from contagion; the others were in turn affected, giving rise to an attendance of nearly four months before the final recovery of the last patient. The second instance happened in a family of seven persons, four or five of whom were attacked, the death of a youth of eighteen years resulting from perforation. Here, again, the disease did not originate on the premises; the mother, the first patient, who had been assisting in nursing a relative several miles distant, was brought back to her own home suffering from typhoid fever, contracted apparently from that relative. The number of persons attacked in both of these examples was exceptionally large, yet the disease rarely appeared in a family, even of moderate size, without more than one of its members being affected.

As to the origin of these widely diffused, destructive epidemics, nothing could be said in explanation, except that, as a rule, a warm, moist spring, and, as a sequence, excessive growth of vegetation, followed by a hot, dry summer, appeared to favor the development of typhoid; just as had been noticed in former seasons in regard to bilious fever. In relation to the influence of local conditions, it may be said that in

an old, long cultivated section, changes in these conditions rarely occur, and certainly nothing of this kind did occur that could explain the ravages of fever in one year, and its absence or slight character the next; and hence the physicians of that section, so far as I knew, were nearly of one accord in regarding atmospheric, hygrometric, electric, or telluric conditions as the sources of the presence or absence, and of the violence or mildness, of the epidemic.

On returning to the city, thirty-three years ago, a location for practice was chosen at Sixteenth and Summer streets, and has thus continued ever since. At that remote period, intermittent, remittent, and typhoid fever prevailed to a considerable extent, especially between Broad Street and the Schuylkill. Not one of these types can now be seen so often, in proportion to population, as during the earlier years of my practice in this locality.

Some years after returning to the city, Professor J. K. Mitchell was called to consult with the late Dr. Gebhard and myself in a severe case of typhoid fever near my residence. This was at a period when bilious remittent was being gradually supplanted by typhoid fever. Dr. Mitchell then stated to us that nearly all the cases of this disease seen by him were in consultations upon the suburbs of the city, as in the case in which he met us, for at that time the locality was but a suburb; yet in the suburbs at that period there were but few sewers or cesspools, and, as to water-closets, they were not to be found there; while, on the contrary, in his own vicinity (Eleventh and Walnut streets) they existed in all directions, and yet, as he informed Dr. Gebhard and myself, he scarcely ever saw typhoid fever in the families under his immediate care. Again, the late Dr. Wm. W. Gerhard, prominent as an authority in typhoid fever, informed me, about six years before his death, that he no longer regarded typhoid fever as either so prevalent or so fatal in this city as it had been in former years; that some modification of the disease, from unknown causes, had occurred, just as he had witnessed many years previously in Paris, where typhoid fever in some of the hospitals had gradually changed in character until from a mortality of one in three patients, only one case out of seventeen attacked terminated fatally. With the statements and opinions thus expressed my own observations and experience fully accord.

During thirty-three years of practice in the city, four cases of typhoid fever, occurring in one family, have come under my care; in two or three families two persons in each have been affected; yet, setting these aside, one case only in any family coming under my observation has occurred. This is in striking and most favorable contrast with what, as before stated, often happens in epidemic typhoid in the country, where no sewer gas or obstructed drains are to be found in explanation of this difference. The increase in the number of sewers, water-closets, and cesspools, in Philadelphia, for some years past, has been simply enormous; and consequently the opportunities for contamination of the atmosphere, water, or milk, correspondingly augmented. If (as some have asserted) sewer-gas is the most potent and common cause in the production of typhoid fever, and if so large a proportion of the houses in the city are infected by it, would we not have, in a population of nearly nine hundred thousand inhabitants, cases almost without number, and deaths in proportion, far more than quadruple the average number reported by the Board of Health?

Physicians have long differed in opinion in reference to the conditions under which typhoid fever is likely to occur, and in regard to the influence exerted by the various agents known, or believed, to play a part in the production of this disease. While many, at the present moment, are disposed to accept the opinion that in an atmosphere contaminated by sewer-gas, or effluvia arising from cesspools, or decaying animal or vegetable matter, is to be found the ostensible cause of the disease; others are more disposed to refer it to the use of milk or water infected by the agents just named, and, in addition, to the consumption of food partially decayed. On the other hand, there are those who, whilst admitting the possibility or probability that certain limited outbreaks of typhoid may be referred to the local causes just named, are fully convinced that the widely spread and fatal epidemics witnessed at times in the country can be explained by no such agencies as those alluded to; neither do we think that a practitioner, who has had the experience of a single season of epidemic typhoid fever in the country, can refer to these agents as the cause of such epidemic, without rejecting the evidence of his own senses.

Dr. James Jackson, of Boston, long before Pettenkofer, in explanation of certain erratic and very restricted outbreaks of typhoid fever, ventured to suggest that, in the absence of any visible agency, some emanation from the soil, obscure as to origin, might account for them. Pettenkofer, however, determined that in proportion to the elevation or depression of the water level in the earth was the greater or less prevalence of typhoid fever, without fixing any limit as to the extent of its influence. When we call to mind that, as before stated, a hot dry summer is, as a rule, the precursor of an unusual amount of fever, either remittent or typhoid, the view of Pettenkofer demands attention and earnest consideration; for, after laborious and protracted researches, he announces, definitely, that in proportion as the water level becomes lower, typhoid fever increases. That many epidemics of the fever appear without the possibility of assigning any special cause in explanation of their origin, is manifest, and no one is more prepared to admit this than the practitioner and medical writer of large experience. Whatever may be the cause or causes of the fever, when once established, contagion, especially when aided by the concurrence of certain indefinable, elemental, and local influences, lends its all-powerful aid in its extension; this, at least, is the opinion of Bretonneau, Trousseau, Louis, Gendron, Chomel, and many other investigators of the disease in France, England, and the United States; among the latter, Drs. Nathan Smith, James Jackson, Elisha Bartlett, and Austin Flint, Sr.

Of the writers quoted, nearly all recognize that very frequently the disease arises spontaneously, and, while some of them admit that a limited number of cases may be due to emanations from sewers or cesspools, others, regarding typhoid fever as specific in character, claim that a specific cause is necessary to develop the disease; and that they find no sufficient evidence of such cause either in the respiration of the effluvia alluded to, or in the consumption of unwholesome food. Trousseau, the medical genius of France, declares "that in Paris, or other large centres of population, it is impossible to determine the origin of the malady, and that this can only be done by physicians who practise in limited spheres, when it can generally be ascertained where the first attack of the disease was noticed." Than this, nothing could be more certain in relation to contagious disease in general; for in the street-car may be seated by your side the washerwoman, whose bundle upon her lap

may contain the clothing of a patient affected with a malignant disease.

When, from time to time, on meeting with physicians of this city who have formerly practised in the country, the inquiry has been made as to the origin of typhoid fever, the answer has been, without exception, that only in an occasional case could even a hypothetical local cause be assigned. The late Dr. Gallagher, of West Philadelphia, once informed me that, from 1839 to 1842, he was nearly broken down in attending to cases of typhoid fever occurring in the fine rural sections four or five miles west of this city. If typhoid is a specific fever, and has as a definite, specific cause, sewer-gas, what can be said in explanation of its great prevalence and fatality at the distance of a few miles only from the city, where no sewer-gas exists? All writers and practitioners, however, do not accept *in toto*, perhaps not at all, the sewer-gas theory, but on the contrary refer to the emanations from decomposed vegetable and animal substances, and from cesspools, as frequent sources of the disease; in addition to which, a third class of observers insist that food, liquid or solid, contaminated by these agents, must be taken into account before a solution of the grand problem, the causation of typhoid fever, can be accomplished. But these various hypothetical or assumed causes have been for years under serious and earnest consideration, yet, so far from solving the difficulty, we are in many respects little farther advanced than when Montaigne, three centuries ago, in his amusingly furious tirade against doctors and their prescriptions, said, quoting the language of Pliny: "That the most important science in use with us, that which has our preservation and our health in charge, is unfortunately the most uncertain, confused, and disturbed by the most frequent changes;" and then, giving utterance to his own thoughts, he exclaimed: "There is no great danger of our being mistaken as to the altitude of the sun, or in the fraction of an astronomical calculation, but here, where it concerns our very existence, it is not wisdom to expose ourselves to the mercy of so many contrary and agitated winds."*

Attempts have often been made to explain away the difficulty of accounting for the extraordinary prevalence and fatality of typhoid fever in the country, as compared with the city, by alleging that the water is, probably, contaminated by the well being too near to where is located the family necessary, or otherwise that the drainage is from the latter to the former. Again, it is said that the effluvia, arising from decayed vegetable matter stowed away in vaults or cellars, are a fruitful source of the disease. That such a condition of things may obtain among families in some of the manufacturing towns of England, or other places in Europe, or in certain localities of this country, may be granted; but that it characterizes any considerable portion of the rural sections that have come under my own notice cannot, in truth, be admitted; and certainly the charge of negligence and improvidence, implied in the above allegation, can have no application to the circle of my former practice in the country, nor to the region adjacent.

A most significant reference must here have place. At the distance of three miles from my location was situated, upon the Brandywine, the cotton factory of Mr. Wm. Young, employing a large number of hands, of whom probably at least one-half were under my care; and yet, so far as memory serves, only two cases of typhoid fever there ever came under my charge. At the distance of about a mile below are located the immense establishments of the Messrs. Dupont, where thousands of people live in comparative proximity. As my practice did not extend to these works, a note was sent a few weeks ago to Mr. Henry Dupont, asking whether or not typhoid fever prevailed among his employés during the years 1840–1843. The note of Mr. Dupont in reply states that, while of so distant a period his recollection is not clear, his impression is that there were but few cases of typhoid fever at that time among the people, and that they are generally healthy. A note recently received from Dr. Jos. P. Chandler, of Centreville, who has had an extraordinary opportunity of investigating the disease, confirms the impression of Mr. Dupont, as he is well qualified to do from the large practice he has had at the works.

Dr. Chandler also informs me that, with the exception of a few cases of the fever, where it seemed probable that local causes may have given rise to the disease, the rule has held good that its origin is involved in obscurity. This statement is fully justified in the fact that the manufacturing centres, with their closely situated houses, do not suffer, as his letter informs me, in comparison with the rural sections, where the disease will often appear in the best and most favorably situated dwellings, with nothing within or without to explain the cause. Now when we call to mind that, in some seasons, typhoid fever has prevailed extensively on the north and south side of the Brandywine, while the intermediate banks, with their dense population, have suffered but little, is it not worth while to concede, at least, to such a statement, so full of truth and meaning, that measure of thoughtful consideration which its importance merits, and in fact demands? At the present moment, and during the last two or three months, Wilmington has suffered from an unusual amount of typhoid, yet the banks of the Brandywine have had but few cases; and whilst the proverbial generosity of the Messrs. Dupont never flags, when the safety, the health, or the general welfare of their employés is in question, the fact is nevertheless obvious, that the local conditions must, of necessity, be in several points such as in the opinion of many physicians would surely engender an epidemic of typhoid fever, which yet for a long series of years has not occurred.

In the earlier part of this paper it was stated that the reports of the Board of Health of this city did not warrant the anxiety and alarm that exist in relation to sewer-gas, as the chief agent in the production of typhoid fever; and without going into details, a few points only will be adduced in reference to this matter. The reports show that very often the deaths from this disease are more numerous in the winter months than during the hot weather of the summer. For example, in January, February, and December, of 1878, the deaths in the order named, were 34, 32, and 33, whilst in July the deaths were but 23; yet this month, as shown by the record of the last ten years, is the hottest of the year, and consequently is the period when fermentation, decomposition, and putrefaction are most actively engaged in evolving effluvia from animal or vegetable substances. This record of facts and figures may, by some, be regarded as inconceivable and perplexing, yet it finds its counterpart in the country, where during one entire winter the disease was unu-

* "Quelle science la plus importante [illegible] celle qui a charge de notre conservation, et encore, [illegible] la plus incertaine, confuse, et troublée [illegible] Il n'y a pas grand danger de nous mécompter [illegible] en la fraction d'une [illegible] y va de notre existence, il [illegible] exposer à la merci [illegible] contraires."—*Montaigne*, Essais, L. v. 2, chap. 37. Paris, 1851.

sually prevalent and fatal. Incidentally, it may here be stated that Dr. L. P. Bush, of Wilmington, during that winter, made, at my request, the examination of the body of a young man who died, apparently from perforation, and this was verified by his careful *post-mortem* search. To Dr. Bush, in fact, was I first indebted for the intimation that Dr. J. P. Chandler and myself were probably having to do not any longer with remittent, but with typhoid fever, for his attention had, if I remember, been especially drawn to this change of type by Dr. Wm. W. Gerhard, and the work of Dr. Elisha Bartlett.

Quoting again, after this digression, from the Health Office Reports, we find that in a series of years the weekly deaths from typhoid average but six or eight in a population of nearly nine hundred thousand; and it should be remembered that this includes the deaths in the almshouses, prison, penitentiary, hospitals, house of correction, and all other similar establishments, making at least one-fifth to be deducted from the total reported.

It is only a few weeks ago that, of our vast population, only two deaths from typhoid were reported for the week. When we reflect upon the number of inlets constantly evolving gas, at times very offensive; the thousands of residences, factories, etc., infected with it; the throngs of plumbers and gas-fitters who are daily compelled by their vocation to inhale the gas in no diluted form; is there not cause of rejoicing, rather than of the alarm that prompts to invert a tumbler over a small aperture, or fill a slight crevice in the washstand, with paper or cotton? Quite recently there appeared in the daily papers an account of an excursion through one of the immense sewers of Paris, where the odor is said to be so offensive that it can never be forgotten. Is it not strange that this should be permitted if sewer-gas was there regarded as the chief and common cause of typhoid fever? But sewer-gas is also said by many to be the general cause of diphtheria and scarlet fever. By reference to the New York Board of Health Report, for the week ending January 11, 1879, it appears that 274 cases of scarlet fever, and 65 of diphtheria, were returned, and only 8 of typhoid fever; nevertheless, the logical inference deducible from this statement will probably be contested. The deaths from scarlet fever, for the month ending December 28, 1878, were, by the same report, 228, from diphtheria 101, from typhoid fever 24, showing a fair correspondence with the number of cases returned.

My own experience, and that of most physicians who have had much experience in typhoid fever, shows a larger number of cases and deaths among males than females; yet the latter, more domestic in town or country than the former, are far more exposed to the influence of what are now regarded by many as the almost exclusive agents in the production of the disease. Practitioners and writers are generally in accord that the disease is most common between the ages of fifteen and thirty-five years; it will be found, however, that a very large proportion are between seventeen and twenty-one years, the most fatal, too, of all periods, especially when the patient is large and has grown up rapidly; and it is just at this time that young men are prone to out-door life, even when business does not call.

The readiness of some physicians to attribute to sewer-gas an attack of typhoid, if any smell denoting its presence in a house can be detected, is surprising, when every physician knows that this is only an exceptional event. To get over this difficulty it is now declared in some quarters that, although the smell be lacking, the gas is present, and capable of producing an attack. This is an unfortunate discovery, if it be a discovery; for it would follow from this, that, after much expense in the effort to banish gas where it was known to exist, from the sense of smell, it might still remain, although imperceptible, and keep the family in painful suspense. But have we any tangible and conclusive proof of this lurking, unforeseen danger, and, if it really exist, is it not remarkable that in the thousands of houses, where the odor is annoyingly perceptible, it appears to do so little mischief? Yet after all there is consolation and hope for the people; for it is announced that typhoid fever, and, as may be supposed, with it diphtheria and scarlet fever, can be stamped out. The whole system of existing sewerage is now discovered to be radically wrong, and it is declared that it ought to be torn out, root and branch. In this announcement the dishonest contractor would surely have the largest share of hope and consolation, were it not that a lynx-eyed, intelligent, and fearless Reform Association confronted him. To this association, in fact, are due the thanks of the community for having unearthed the nefarious acts of more than one contractor, and exposed to the light of day the wretched workmanship and worse material, that they fully believed had been forever concealed from human vision. Let the actual system, then, have justice done it, in material and construction, before entering upon the trial of another, involving the expenditure of untold millions still further to oppress the renter and tax-payer.

But what is to become of the rural population who, without sewer-gas, suffer more from epidemic typhoid fever than the residents of cities? Let them, we shall be told, be more careful in regard to local filth, contaminating both air and water or food. This advice appears to be tendered in all sincerity and charity; but whether the people of any well-ordered farming district in the counties adjacent to the city, where the Quaker element, proverbial for neatness and order, so largely prevails, will receive, with due humility and gratitude, the advice so generously proffered, remains to be seen. Admitting, however, that the charge is in some instances well founded, or indeed that every farm-house in the largest county adjacent to Philadelphia has, within or without, the sources of infection, what would it all amount to, diffused over so large an area, when compared to the limited space on which the city is built, with its sewers, water-closets and cesspools, aggregating, in number, tens of thousands, and many of the latter, too, in close proximity to the dwelling, in an offensive condition, and rendered more so by serving as receptacles for every description of putrefied and putrefactive substance. And, again, has the butcher never any unsalable, perhaps semi-putrefied, meat on hand; has the greengrocer no decayed vegetables or fruits to dispose of; and have the hucksters nothing of a semi-putrid character to stow away, in barrels or boxes, in cellars or vaults, or to have covered up from sight in a filthy stable-yard or outhouse?

The sources, then, of local contamination would seem to be infinitely more numerous in the city than in the country, yet without discouraging those who promise to stamp out disease. The real difficulty is when an epidemic of a violent and extended character starts up, as it has been known to do, in certain mountainous parts of Virginia and Tennessee, in their almost pristine condition, without the semblance of filth to account for its origin. It is evident then, that whatever cases of typhoid fever may have been traced to sewer-gas, or local contaminations, some other

cause or causes must be sought to account for the frequent and disastrous outbreaks in the rural sections; and this, it is clear, was in the mind of that sagacious observer and logical thinker, Dr. Charles Murchison, when he declared his belief in the origin *de novo* of typhoid fever, placing himself, in this point, upon the platform occupied by all the celebrities named in the earlier part of this paper.

Directing our attention once more to the health of our city, as exhibited by the Board of Health from week to week, we see no rational cause for anxiety or alarm; for while the deaths from pneumonia, for the last five weeks, have been very numerous, exceeding by far the total number caused by typhoid fever, diphtheria and scarlatina, taken together, the city, as to general health, may still be, as it has been for many long years, regarded as one of the most healthy of large cities. In the present Board of Health the people, we believe, may have entire confidence, composed as it is of gentlemen of exalted character, and fully interested in the important and responsible work they have in charge; presided over, too, by a gentleman whose fitness for the post he occupies is acknowledged by every one who has examined the recent annual reports, in the preparation of which he is doubtless aided by the indefatigable Registrar. That nothing will be left undone by the Board for the prevention of disease, so far as that is possible, and for the removal of nuisances, even if not productive of disease, we have full confidence. The circulation of exaggerated reports, in relation to any disease, should be avoided, as the tendency is to engender a degree of anxiety and disquietude, whose only effect is to diminish vital force, and thereby render the system more liable to the influence of a deleterious agent.

TREATMENT OF PERITYPHLITIC ABSCESS BY ASPIRATION.

By H. C. POTTER, M.D.,

PRAIRIE CITY, IOWA.

I was called on the 3d of September last to see J. J. Draper, a robust man of thirty-four years. He said he had been taken sick three days before with vomiting and pain in the stomach; but that the pain had shifted to the right side of the abdomen on the morning of the 3d.

I found him suffering severe pain in the ileo-cæcal region. Inspection revealed nothing abnormal. Palpation, however, disclosed a small tumor at this point, deep-seated, and painful on pressure. His temperature was raised considerably above the normal (101.5° F.); pulse 95.

During the following twelve days, while the pulse and temperature remained about the same, a gradual increase in size of the tumor took place, with elevation of the surface. At the end of this time an oval elevation occupied the ileo-cæcal region, its apex rising perhaps ¾ of an inch above the general surface. At its most prominent point slight fluctuation could be felt on rather firm pressure. On the 13th, fluctuation in tumor more marked, and I resolved to operate for its evacuation.

Accordingly on the 14th I called Dr. C. H. Rawson, of Des Moines, in council. After examination we decided to make an exploration with aspirator. The reservoir being exhausted, the needle was inserted at the apex of the tumor, and at the depth of 1½ inches was felt to pass into the cavity of the abscess. The stop-cock was now turned, and about two ounces of fetid pus flowed over into the reservoir. The needle was then withdrawn.

In consequence of the apparently complete evacuation effected by the aspirator, we concluded not to operate further, unless subsequent developments should render it necessary. On the following day the condition of patient was greatly improved, and from this time he advanced to convalescence as rapidly as could be expected.

He is now able to perform his usual duties.

The treatment during the course of the disease consisted of opiates and tonics to arrest the symptoms. In conclusion, would note the fact that patient submitted to the operation without the exhibition of an anæsthetic, and that he expressed himself as very much relieved immediately on evacuation of abscess.

ACNE ROSACEA—THIRD DEGREE.

GREAT THICKENING OF THE SKIN OF THE NOSE, WITH DEVELOPMENT OF FLESHY EXCRESCENCES —TREATED BY EXCISION.

By P. A. JEWETT, M.D.,

NEW HAVEN, CONN.

S. C——, aged 70 years, was the subject of this disease for more than thirty years. It had gradually extended until more than half of the organ had become implicated. The diseased mass exceeded in size that of a large orange, and projected most on the right side, causing the patient to present a somewhat unique appearance.

The operation consisted in the removal of the whole diseased mass, by careful dissection down to the cartilage.

The hemorrhage was not troublesome, being readily controlled by the use of solut. persulph. ferri.

The after-treatment consisted in the application of a solution of permanganate of potass., grains v. to ℥ i. of water, at first. This was gradually increased in strength to gr. x. to ℥ i. as the growth of the granulations seemed to require. The wound was entirely healed at the end of two weeks, without scar, roughness, or contraction.

In the MEDICAL RECORD of August 3, 1878, Prof. Hebra, of Vienna, is reported as having performed a similar operation on two patients. He says, that "in each case he succeeded in forming a very presentable nose, to the great delight of the patient and his own satisfaction." The nose in my case is not only "very presentable," but is as good as the original organ. The patient is very proud of his improved appearance.

NEW HAVEN, CONN., February 8, 1879.

THE PLASTER JACKET.—Dr. R. E. Power sends to the *British Medical Journal* of March 15th some suggestions in regard to the plaster jacket in spinal curvature. To the ordinary mode of application he had found two inconveniences: the friability of the plaster and the tendency of the jacket to become slack. To obviate the first, he moistens the plaster with a thin solution of gelatine. For preventing the loosening of the jacket he uses coarse brown paper instead of the woven shirt. This is immersed in warm water for a few minutes, and then applied to the chest. The plaster is rubbed upon this; then another layer of paper superimposed, and the whole then suitably bandaged. When this jacket dries it does not shrink, and is moreover somewhat elastic.

Progress of Medical Science.

On the "Phenomenon of the Knee," and on Tendon-Reflexes in Children.—The researches of Tscherjerv tend to demonstrate that the sharp contraction of the triceps cruralis, excited by percussion of the ligament of the patella, and known by the name of *phenomenon of the knee*, is not the result of direct irritation of the muscle, but is reflex in character. The centre which presides over the reflex phenomenon, is situated in the rabbit in that portion of the spinal cord which corresponds to the junction of the fifth and sixth lumbar vertebræ, and to the point of origin of the sixth lumbar nerves. When the cord is divided at this level along with the posterior root of the sixth lumbar nerve on one side, the phenomenon of the knee can no longer be produced on that side. It follows that the abolition of the phenomenon of the knee indicates the existence of a very circumscribed lesion at the above point. In ataxics it indicates that the degeneration of the posterior columns has reached that point. On the other hand the persistence of the phenomenon does not exclude the possibility of an alteration in other regions of the cord. The exaggeration of the tendon reflexes in spasmodic spinal paralysis should be ascribed in part to the paralysis of the antagonists.

Prof. Eulenburg has studied the subject of tendon reflexes during the first years of life with the following results: Out of seven children who were examined during the first twenty-four hours after birth, the phenomenon of the knee was very distinct in six, while, on the contrary, the phenomenon of the foot could only be obtained in one. In one boy, thirteen days old, who was suffering from atrophy, the phenomenon of the knee was wanting, but it was present in all the other children between one and four weeks of age who were examined. As a rule it was more marked on one side. It was wanting only in 7 out of 173 infants over one month old; in all of these seven the state of the nutrition was poor and the general health was more or less impaired. On the other hand, in two children suffering from spinal paralysis, the phenomenon of the knee was considerably exaggerated. In children from two to ten years of age, its absence was as exceptional as in the earlier periods of life. It was wanting in a child who was epileptic, as a result of a fall on the head; on the other hand, it was exaggerated in chronic and eclamptic children. It is an interesting fact that, in a case in which Prof. Hueter had resected the crural nerve for obstinate neuralgia, percussion of the patellar ligament was invariably followed by an energetic contraction of the flexor muscles of the leg.

The investigations of Soltmann have proved that the reflex acts are exaggerated, while the excitability of the peripheral nerves is less intense during the first six weeks of life. Hence, since the phenomenon of the knee is observed immediately after birth, it must be admitted that it is a reflex act, and that the contraction of the triceps cruralis which constitutes it, is not the result of direct irritation of the muscles and the motor nerves ramifying in them.—*Gazette Médicale de Paris*, Oct. 5th.

A Case of Total Extirpation of the Uterus.—Dr. G. Leopold, of Leipsic, reports a case in which he performed the operation of total extirpation of the uterus, on Freund's plan. The patient was suffering from cancer of the uterus, and the vaginal walls were not involved in the disease. The operation was performed under the carbolic spray and lasted two and a half hours. In the course of the operation considerable venous hemorrhage took place from the rich venous plexus of one side, which was torn in the application of the lowermost ligature in consequence of the needle pushing the parametrium before it. This was avoided on the other side by making counter-pressure against the point of the needle. Dr. Leopold, from his experience in this case, believes that the venous is more to be feared than the arterial hemorrhage. He recommends that the uterus be not drawn upward too forcibly while applying this ligature, as forcible traction obliterates the vaginal vault, and the needle is then liable to pierce the infiltrated cervix. The peritoneal sutures had to be applied with more haste than was desirable in this case, as the patient had collapsed several times during the operation, chiefly from loss of blood. She came out of the narcosis well, but began to complain of violent pains in the vagina on the same afternoon, and died on the second day from loss of blood and septic peritonitis. At the autopsy the posterior wall of the bladder was found to be the seat of a commencing carcinomatous infiltration. The ovaries were enlarged to threefold their size at the time of the operation, as a result of the congestion caused by the ligatures. They contained numerous extravasations of blood, and the wall of a corpus luteum, that was present in one of them, had been ruptured, permitting the escape of blood into the pelvic cavity. The operation had been performed nine days after a menstrual period.—*Centralblatt f. Gynakologie*, Nov. 9th.

Tracheotomy in Infants Under One Year of Age.—As the reported cases of successful tracheotomy performed during the first year of life are but few in number, the two following cases reported by Dr. Elias, of Breslau, are of unusual interest. The first case was that of a delicate girl, ten months old, who was suffering from a severe form of diphtheria. The tonsils, uvula, and posterior wall of the pharynx were covered with a thick membrane. There was marked fœtor ex ore, and suffocation was imminent. The improvement after the operation was slow, but on the sixteenth day the canula was permanently removed, and on the twenty-first day the tracheal opening had closed, the voice was pretty clear, and the general condition was excellent. On the following day, however, the child was suddenly seized with violent convulsions, in one of which she died on the same evening. The autopsy showed that the tracheal wound was firmly closed and revealed no abnormity in the respiratory organs or the intestines. From this negative result Dr. Elias concludes that the fatal convulsions had no direct connection with the diphtheria, but that they were probably due to dentition, and favored by the anæmia resulting from the severe sickness the child had just passed through.

The second patient was eight months of age, and was suffering from membranous croup. Tracheotomy was performed on the second day of the disease, with immediate relief to the threatening symptoms. The tube was removed permanently on the thirty-third day, and a few days later the wound in the neck was entirely healed. From his experience in these two cases, Dr. Elias warmly advocates an early operation in children under one year of age, when the signs of suffocation are threatening. He recommends the employment of canulæ of, at most, from 3–3.3 cm. in length, and 4 mm. in thickness, with a curve of from 1.7–2 cm. radius. The outer canula should have an oval fenes-

trum. Longer cannulæ irritate unnecessarily the mucous membrane of the trachea. As early as possible the patient should be made to breathe through the larynx; this can be done by removing the inner cannula and stopping the external opening of the outer cannula with the finger. This manœuvre should be kept up each time until dyspnœa sets in. In this way the children will soon become accustomed to breathe through the mouth, and both cannulæ can then be definitely removed without danger.—*Deutsche med. Wochen.*, Nov. 9, 1878.

A Case of Reflex Vertigo from Stricture of the Urethra.—Dr. Erlenmeyer, of Coblentz, reports the following case: A robust, previously healthy man began to suffer from stiffness and a sense of weight in the left arm, which soon spread to the left leg and then to the right arm. This stiffness was only present at intervals, and was finally associated with severe subjective vertigo. The vertigo occurred also independently of the stiffness of the joints, during micturition, which was rendered difficult by a urethral stricture. In consequence of his suffering, the patient became melancholic and incapable of mental exertion. The objective examination revealed catarrh of the stomach and bladder, and increased reflex of the patellar tendons. The patient staggered and complained of vertigo, when he tried to stand or walk with closed eyes. Although the case was very obscure, incipient disease of the central nervous system was diagnosticated, and the patient was treated on that supposition, but entirely without result. He finally submitted to treatment for his urethral stricture, and as soon as this was cured the stiffness of the joints and the attacks of vertigo disappeared. The staggering and subjective vertigo, when standing or walking with closed eyes, and the increased reflexes of the patellar tendons, alone persisted.—*Deutsche Med. Wochen.*, Nov. 9, 1878.

Carbolic Acid Poisoning.—Dr. Sonnenburg, of Strassbourg, in a paper published in Vol. IX. of the *Deutsche Zeitschrift für Chir.*, recommended, on experimental grounds, the sulphate of soda as an antidote for carbolic intoxication, and he now states that his subsequent experience has fully confirmed the views expressed in that paper. In all the suspicious cases under his observation, the urine was examined, and whenever the diminution of the sulphates showed that the carbolic acid was beginning to act injuriously, the sulphate of soda was administered; within twenty-four hours, as a rule, the urine threw down a normal precipitate on the addition of chloride of barium, and the suspicious symptoms disappeared.

In the last "Surgical Congress," Prof. Lücke drew attention to the facts that traces of albumen are sometimes found in the urine of patients with open wounds which are dressed with carbolic acid, and that the albumen disappears as recovery progresses, and the dressings are less frequently changed. As the conditions of this albuminuria from carbolic acid are still very slightly known, Dr. Sonnenburg undertook a series of experiments on dogs and rabbits, in which he studied particularly the action of carbolic acid on the kidneys. Strong solutions of the acid were rubbed into extensive portions of the skin of the animal with a stiff brush. Sometimes two or three applications were required, but in a few cases the animals died a few hours after the first application. The results obtained were as follows: After every moderately thorough application of the acid, the sulphates disappeared entirely from the urine. Traces of albumen were only found in the urine of two cases, which proved very rapidly fatal. The kidneys in all the animals experimented on were markedly hyperæmic. In one case, in which death took place after violent convulsions, about six hours after an extensive application of the acid, the hyperæmia of the kidneys was unusually great; this case presented also hemorrhages into the cortical substance, and hemorrhagic casts in the convoluted, but more particularly in the straight tubes. The urine found in the bladder at the autopsy also showed traces of blood. From these investigations, it is clear that carbolic acid can be absorbed by the skin, and produce very serious derangements in the kidneys. It is true that such acute poisoning, as occurred in the above case, in which hemorrhages into the renal substance were found, could scarcely occur in men from absorption of carbolic acid through a wound. Still the power of carbolic acid to excite hyperæmia, etc., in the kidneys, may become of serious import in cases in which the nutrition and circulation of those organs are impaired by long-standing suppuration; it may then explain the occasional occurrence of albuminuria without any other notable symptoms of poisoning during the treatment of wounds with carbolic acid.—*Centralblatt für Chir.*, No. 45, 1878.

Changes in the Sympathetic in a Case of Progressive Pernicious Anæmia.—Dr. Brigidi reports a case of progressive pernicious anæmia in which the autopsy revealed interesting changes in the cœliac plexus, but no fatty change or other lesion in the heart and other viscera. In the fresh state the plexus presented an excessive proliferation of nuclei, so that in many places the nerve-cells were destroyed; in other places these cells seemed pigmented, but were cleared up by the addition of reagents. The blood-vessels were empty. In ganglia, hardened in alcohol, the nerve-cells could only be found in isolated spots; in the greater part of the sections they were replaced by groups of small elements, which resembled nucleoli. From the microscopical appearances, Dr. Brigidi constructs the following chart of the pathological process: The endothelium lining the capsules of the ganglia began to proliferate abnormally, destroyed the nerve-cells by pressure, and formed granulations, some of which assumed a bronzed or brown color, while others underwent fatty degeneration. The further this fat development proceeded, the more the nerve-substance disappeared, until finally, the proliferation of nuclei persisting, the entire nerve-substance was destroyed, and its débris was found dispersed in the newly-formed nuclear growth. The nerve fibres of the ganglia had likewise undergone fatty degeneration. The empty blood-vessels of the ganglia also presented an excessive proliferation and accumulation of the endothelium. Around the ganglia there were thick layers of connective tissue, which was but poorly supplied with nerves.—*Allg. med. Cent.-Zeit.*, No. 98, 1878.

Death from an Intra-Uterine Injection. At the meeting of the London Obstetrical Society, March 5th, a uterus was shown of a very interesting character. The patient had expelled a vesicular mole six months before. She then suffered from menorrhagia, and was admitted to St. Thomas's Hospital. The hemorrhage continuing, a solution of perchloride of iron was injected. The second syringeful was sent into the uterus. The patient died, and on examination iron was detected in the peritoneal cavity.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 19, 1879.

TENDON-REFLEX.

THE ankle or foot-clonus (foot-phenomenon of Westphal), produced by irritation of the tendo Achillis, is in many respects similar to the "knee-phenomenon" which we discussed in the preceding number of the RECORD, and is, in fact, considered identical with it by the majority of neuro-pathologists.

This phenomenon is produced in the following manner: If the foot be abruptly forced into complete flexion by one hand applied to the sole, and the tendo Achillis, which has been necessarily rendered tense by this manœuvre, be smartly tapped with the finger or other small object, such as a percussion hammer, the foot will immediately begin to undergo alternate movements of flexion and extension, due to alternate contraction and relaxation of the anterior tibial and calf muscles. These movements will continue as long as firm pressure is maintained by the hand which is applied to the sole of the foot, or until the muscles of the leg have become exhausted. When the phenomenon is well marked it may also be produced by mere forcible flexion of the foot without resorting to the additional stimulation of the tendo Achillis, and, in extreme cases, the mere weight of the bed-clothes resting upon the tips of the toes may cause violent movements in the limb. The initial contraction can also be frequently developed by tapping the anterior tibial muscles, and this is a very significant fact, since this procedure can have very little effect upon the tension of the tendon.

After careful investigation of a large number of cases, Dr. Gowers found that from five to seven contractions occur per second, the average number being 6.1.

Many of the French neurologists, and notably Joffroy, have maintained the opinion that the ankle-clonus is a simple cutaneous reflex, similar to the spinal epilepsy which was first described by Brown-Séquard nearly thirty years ago. According to Erb, many of the cases of so-called spinal epilepsy are due to the fact that when the sole of the foot is irritated by tickling or pinching, the foot is immediately drawn up into active dorsal flexion, the tendo Achillis is thereby rendered more tense, and the tremulous movements produced in the leg and thigh (and which are sometimes communicated to the other limb) are, therefore, similar to those observed in foot-clonus. In addition, it has been shown that foot-clonus may be produced, even if the cutaneous sensibility of the lower limbs is lost, and, on the other hand, the reflex excitability from stimulation of the skin may be increased, though the foot-clonus may, nevertheless, be wanting.

As in the tendon-reflexes to which we referred in the preceding article on this subject, foot-clonus is indirectly due to the increased tension produced in the calf-muscles by the increase of the tension of the tendo Achillis. The simple fact that, as we have previously mentioned, a tap on the anterior tibial group of muscles will, in certain cases, produce ankle-clonus, if the foot be simultaneously held in dorsal-flexion, although tapping the tibia itself is not followed by a similar phenomenon, is sufficient evidence that mere tension of the tendon, without implication of the muscles, is not the essential cause of the development of ankle-clonus.

It would appear, therefore, that ankle-clonus is, in most respects, identical with the patellar reflex or "knee-phenomenon." Gowers has shown, however, that the two sets of phenomena differ in certain fundamental characteristics. The measurements of this author, by means of the myograph, have demonstrated conclusively that the interval which elapses between tapping the tendo Achillis and the appearance of the first contraction in the muscles of the calf varies from .025—.04 of a second. This period is entirely insufficient for the production of a reflex act, the time required for the development of the latter varying from .10–.11 of a second (nearly three times as long as the former period).

Ankle-clonus must therefore be regarded as the effect of direct stimulation of the muscles (anterior tibial or calf groups), which are in a condition of exaggerated irritability.

According to Gowers, however, this exaggerated irritability of the muscles may itself be a reflex effect of the tension produced in the fibres by the passive flexion of the foot. This opinion is substantiated, to a certain extent, by the fact that the phenomenon is not produced immediately after flexion of the foot, but that a sufficient period elapses (as shown by the tracings of the myograph) for the development of a spinal reflex.

Dr. Gowers calls attention to a very interesting physiological application of this view. During the act of walking the contraction of the calf muscles (raising the heel) always follows the increased tension

which has been called forth in these muscles by the contraction of the anterior tibial group of muscles (raising the toes), and Gowers believes that a physiological reflex between these two sets of phenomena is probably developed in early life when the child is beginning to walk.

Ankle-clonus is frequently observed in health, but not with the same regularity as the patellar reflex.

The chief clinical interest hitherto attached to ankle-clonus, refers to its occurrence in lateral sclerosis, in which disease it is developed to an excessive degree.

Unfortunately, however, the patellar-reflex has hitherto usurped the greatest amount of attention among the so-called tendon-reflexes (ankle-clonus having been regarded as identical with it), and, as a natural consequence, while we have made some advances with regard to the physiology of ankle-clonus, its clinical bearings have been almost entirely disregarded.

THE REPORT ON THE STATE CHARITIES.

The recent report to the Comptroller upon our State Charities has deservedly attracted much attention and is likely to invite a long discussion. It bears especially upon the financial management of the various State institutions, and that part which relates to Insane Asylums, therefore, will be a fitting complement to the proposed investigation into the medical side of the question. The present report is one step at least in the right direction.

Mr. Apgar, its author, has evidently done his work with care and honesty. He gives, perhaps naturally, a rather *ex parte* statement of the case, and one would judge that he had never had any great experience previously with the institutions examined. Nevertheless his main conclusions are so well supported with statistics that they cannot be disproved.

He shows what we have before maintained, that there is much unnecessary and injudicious expenditure in the management of Insane Asylums, and he refers to one of the causes upon which we have especially insisted, namely, that of constructing large asylums, and then weighting one person with both the medical and business management. There can be no stronger illustration of the grotesque character of the present palace-asylum system than that furnished in Dutchess County. The per capita cost of private dwellings there is $386, while that of the insane asylum is nearly nine times as much. In other words, the average tax-payer lives in the modest accommodations of a cottage, while the lunatic vegetates amidst the architectural splendors of a building that cost a million and a half dollars.

Mr. Apgar endeavors to show, amongst other things, that while the expense per capita in insane asylums has increased, the per cent. of cures has actually diminished, and that thus our fine buildings, our advanced therapeutical methods, and our special pathological investigations have been of no practical value. We are inclined to distrust the figures which lead to this conclusion. In determining changes in the per cent. of cures there are many elements to be considered, and we must have evidence that these have not been overlooked before believing that there has been no advance in the therapeutics of insanity during the last twenty years. However, there is certainly an apparent decrease in the number of patients cured, and this fact is held up to show that a lunatic has as good a chance of recovery on $3.71 a week, the cost of support at Northampton, Mass., as on $5.00, the cost at Utica, N. Y.

The report suggests that the carelessness and extravagance shown can be remedied by obliging itemized estimates to be submitted regularly to the State Board of Charities, who will examine into their character before submitting them to the Comptroller. Without going into detail, the plan suggested appears to be simple and sufficient.

The report, then, in brief, shows that there is extravagant expenditure without a corresponding increase in efficiency, and plans for securing more rigid economy are strongly recommended as both practicable and necessary. We hope that such may be initiated, but we would not have our legislators forget that the reform should not be in the interest of economy alone. We have more than two thousand insane persons who fail to get even the advantages of a good asylum. It will neither be human nor wise to neglect these; and simply securing a reduction in board of two dollars a week will constitute but a small part of a much-needed general reform.

THE DINNER TO PROF. S. D. GROSS.

The complimentary dinner recently given to Professor Gross, of Philadelphia, was an event which will long be remembered by the participants. The occasion was an unusual one, not only in regard to the commemoration of half a century of professional work, but on account of a singular unanimity of feeling of the representative men of Philadelphia and elsewhere, in showing honor to the distinguished guest. To very few indeed is allotted the privilege of active professional life for so long a period, and to still fewer is the gratification allowed of hearing on the eve of a life thus spent in the service of humanity, the plaudits of one's peers, the commendations of those who are best qualified to judge of the merits of one's work. The speakers vied with each other in their expressions of kindly personal feeling, in their appreciation of the labors of the faithful servant of science, and in their good wishes for even greater usefulness.

Prof. D. Hayes Agnew, in his eloquent address, gave the keynote to the sentiment of all present, that of respect and love for the renowned professor. The same sentiments were repeated in the brilliant speeches of Yandell of Kentucky, of Rogers of Philadelphia,

Post of New York, Silliman of New Haven, and Norris of the Army.

The distinguished gentlemen from the different parts of the country who were unable to attend, sent their congratulations by letter and telegram, and helped to make the affair one of the memorable ones of the period.

THE PLYMOUTH AND YELLOW FEVER.

It is reported that the ship Plymouth, U. S. N., which had yellow fever on her a year ago, and came North, and was emptied, fumigated, and otherwise cleansed, and laid up in Boston through the entire winter to freeze out the fever poison, sailed a few weeks ago for the West Indies, and, when off Bermuda, before touching at any port, had yellow fever break out. How does this alleged fact agree with the belief that the fever poison is destroyed by very low temperature?

It is said that erysipelas occurred, during a China cruise, in the U. S. ship Colorado, from 1870 to 1873. The vessel had had erysipelas on her in 1866, after which she had lain four winters in Portsmouth, N. H., dismantled. She had been repainted, etc., from end to end, for the China cruise. On the latter "they could not cut a finger off in the sick bay, or leave a man in the sick bay with a contusion of the skin, without erysipelas breaking out." They had to treat all such cases in quarters, or at the apothecary's rooms.

Has this fact any bearing on the use of old buildings for hospital purposes, or old hospitals for hotel purposes?

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 6, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

SECTIONS OF THE BRAIN.

DR. JOHN C. DALTON exhibited several sections of the brain prepared in a manner to which the attention of the readers of the RECORD has already been directed. (See RECORD for Feb. 15, 1879, p. 157.)

CENTRUM OVALE.

In the course of the remarks made by Dr. Dalton, while describing the sections presented, he stated that the *centrum ovale* as seen represented in the books did not exist, and was a picture of the imagination. The reason was that the corpus callosum instead of being a plane was an arched commissure, and it was impossible to make sections which would show what the books illustrated.

ASYMMETRY OF THE BRAIN.

Again, he had not seen a brain which was symmetrical.

With reference to the last point the PRESIDENT remarked that, several years ago, while conversing with an eminent English obstetrician at a dinner party in London, he suggested that observations be made with reference to the symmetry of the fœtal head, believing that the results might have an important bearing upon the question of the mechanism of labor. That gentleman began the observation, had taken models of a large number of fœtal heads, and had demonstrated most conclusively that the fœtal head was not symmetrical.

EYE TROUBLES IN GENERAL PRACTICE.

DR. HENRY D. NOYES then read a practical and interesting paper on the above subject (see p. 361).

The paper being before the Academy for discussion,

DR. H. KNAPP remarked that he agreed essentially with the author of the paper upon nearly all of the points brought forward, and would only add a few suggestions relating to topics of the most practical interest.

OPHTHALMIA NEONATORUM—ACUTE TRACHOMA—ESERINE.

One of the most important affections which the general practitioner was called upon to treat was ophthalmia neonatorum, and hence he had found principles followed which were not exactly what he had regarded best in the treatment of the disease. First, with reference to bandaging such eyes. In cases of blennorrhœa, gonorrhœal ophthalmia, diphtheritic or from granulations, he regarded it as decidedly harmful to bandage the eyes in any shape or form. He was convinced that the affections of the cornea, which were of the most serious consequence, associated with these severe conjunctival inflammations, were mainly due to mechanical injury; that is, to the immediate effect of contact between the surface of the cornea and the inflamed surface of the conjunctiva. In granulations, especially of the acute form, that could be plainly proven, and when such eyes were forced to be kept open, improvement was at once manifest.

Dr. Knapp thought it was not necessary to apply any caustic in the first stage of the ophthalmia of the new-born. He thought it was injurious to use nitrate of silver stronger than *three grains* to the ounce of water, if employed at all, and that the five-grain solution was sufficiently strong for the entire treatment. He believed it was of the greatest importance to use cold applications, certainly in blennorrhœa, gonorrhœa, diphtheria, and also in the rare cases of acute trachoma. The applications in some cases, for instance in diphtheria, should be made night and day, and the nurse should devote the entire time to the care of such a patient. In making the applications care should be taken to open the eyelids, and to carefully wash the secretion away from the inside. That should be done at least every half hour, perhaps as often as every fifteen minutes. The secretion itself was corrosive, would produce a sore upon any surface similar to the one from which it was taken, and in the same way it acted upon the cornea. Afterward, when there was proliferation of the mucous membrane and a profuse creamy discharge, nitrate of silver was the proper remedy to be employed. In the first stage he would abstain from its use altogether, or use it only in weak solution.

There were some cases of acute conjunctival trouble which were perplexing even to experts. In those cases the conjunctiva was intensely swollen and œdematous, perhaps there was but little secretion, and that was by no means purulent. He had always treated such

cases with cold applications, and in a majority of instances they were well borne. Sometimes, if the disease was not intense, warm applications did good, and were recommended by Alt; but those were the milder cases. In the more severe cases which were benefited by the use of cold, the condition in the course of four or five days would disappear in another catarrhal conjunctivitis, and at the end of three or four weeks a crop of granulations would be formed. The case then was certainly one of *acute trachoma*, and before the acute stage had passed he thought it injurious to apply caustics. Cleansing, and the use of cold was the proper treatment.

When the time arrived for the use of astringents and caustics the strength of the solution should be proportionate to the swelling of the mucous membrane, and the copiousness of the discharge. He rarely resorted to divison of the outer commissure, and did it chiefly for the relief of obstinate cases of spasm. He thought that perhaps the operation was performed too frequently. He also believed that slitting the cornea was done a little too frequently. The antiseptic treatment of these diseases, as practised in Europe, certainly yielded excellent results, yet he was not quite certain but that thorough cleanliness without bandaging might prove equally successful. There was one remedy which exerted a decided influence upon many of these processes, and that was *eserine;* not employed as an antiseptic, but as a remedy to *reduce tension.* He employed it in solution, grs. iv. to the ℥ i. of water; its action was manifested sooner and continued longer than that of atropine used of the same strength, but whether it had the same tendency to irritate the conjunctiva he was not prepared to say.

SYMPATHETIC OPHTHALMIA.

According to an authority to whom Dr. Noyes had referred, the tenderness in the eye was most pronounced in the upper ciliary region, and strange to say the tenderness would commence in the other eye in the same region. When, therefore, there was tenderness in the upper ciliary region, as well as in other parts of the eye, and the same condition existed in the other eye, it was probable that sympathetic trouble would be developed.

SEROUS IRITIS.

The serous iritis he regarded as the least dangerous, and was so without enucleation or operation upon the other eye. It would almost always get well.

ESERINE —ASTHENOPIA.

Dr. C. S. Bull emphasized the use of *eserine* in the treatment of suppurative troubles in the cornea. He had been pleased with its effects, not as an antiseptic, but as a relaxor of intra-ocular tension and as a queller of pain which would not yield to atropine. He also referred to the relation between asthenopia, or failing vision, double vision, vertigo, nausea, and headache, and uterine disease. Dr. Swanzey, of Dublin, had met with fifteen or twenty such cases in which there was no error in refraction, and by proper treatment of the uterine disease the eye symptoms were ameliorated, and in many they disappeared.

PRESBYOPIA —ASTHENOPIA —STRABISMUS —HYPERMETROPIA.

Dr. O. D. Pomeroy referred to the use of presbyopic glasses. He recommended that convex glasses should be used by those who had the slightest difficulty in reading fine print, providing they were able to relax the accommodation.

With reference to the treatment of asthenopia the patient should try to relax accommodation and should avoid excessive fatigue. "The eye should be rested before it became tired."

With reference to strabismus he had noticed that there was usually a disposition to relapse. But if he found far-sightedness he employed glasses to be worn constantly, such as were indicated by ophthalmic examination. The glasses might make the patient near-sighted, but it was the only way in which he had been able to prevent the eye from turning inward.

He was inclined to believe that slight hypermetropia was not an abnormal condition.

GLAUCOMA —ASTHENOPIA.

Dr. D. Webster remarked that the presence of glaucoma was too frequently overlooked by the general practitioner. In acute glaucoma it was far more dangerous to make a mistake in diagnosis than in the chronic form of the disease. Acute glaucoma was usually mistaken for neuralgia. He then referred to two cases in which the glaucoma was overlooked; the supposed neuralgia was treated by opium, the opium habit was acquired, and the disease progressed to a point at which sight could not be restored by an operation.

SYMPTOMS OF ACUTE GLAUCOMA.

Acute glaucoma should be recognized by the general practitioner, and the points in diagnosis were the following: Comparatively sudden loss of vision within a few hours, a day or a week; great redness of the eyeball; great pain in and about the eyeball; increase of tension, and dilatation of pupil. There was no other disease which produced those symptoms, and an iridectomy done within a few days almost inevitably saved the eye.

In acute glaucoma, supervening upon the chronic, iridectomy would restore the vision to what it was before the attack. He thought all ophthalmologists saw cases in which eyes could have been saved if iridectomy had been performed for *acute glaucoma.*

With reference to asthenopia, Dr. Webster referred to a case which had been treated one or two years by four skilful physicians for nasal catarrh. The symptoms of which the clerk complained were a sense of pressure at the root of the nose and inner corner of the eyes, a feeling of dulness in his forehead, and he found it hard work to do mental labor; there was no pain. On examination without atropine the eyes were found to be normal. Atropine was introduced into both eyes, and at the end of an hour they were found to be hypermetropic $\frac{1}{8}$; vision $\frac{20}{20}$. After the return of the accommodation he accepted +24 with each eye. Those strong convex glasses were prescribed, and it was not long before all his symptoms disappeared.

CONJUNCTIVITIS—CANTHOPLASTY—FOREIGN BODIES IN THE CORNEA—DOUBLE VISION PRODUCED BY STRABISMUS—RELATION OF THE IRIS TO THE CRYSTALLINE LENS.

Dr. De Rosset thought it very important to make an accurate diagnosis of what appeared to be trifling affections of the eye. Cleanliness and the application of warm water would cure almost any case of pure inflammation of the conjunctiva, and yet such cases would stand almost any kind of mild astringent treatment. There were cases in which there was such severe pressure upon the eyeball that the cornea was kept soaked with the discharge from the conjunctiva, and it was important that such pressure should be removed. To accomplish that he divided

the outer commissure. Dr. De Rosset then referred to the irritation which might be set up by a very small foreign body lodged in the cornea, and which very often escaped the notice of the general practitioner. He also referred to double vision produced by very slight degree of strabismus in little children, a fact not infrequently overlooked by the general practitioner, and therefore the double vision became an alarming symptom. Dr. Noyes had spoken of the iris as always lying upon the lens, but he believed that it retired from the lens, because he had seen dilatation to such an extent that the pupillary area was larger than the diameter of any lens which the eye could contain.

Dr. Noyes, in closing the discussion, remarked that he had simply spoken of the treatment of conjunctival disease in its later stage, and that he was pleased with the remarks made by Dr. Knapp because the subject was thereby made symmetrical. In addition, he referred to keratitis occurring in young children. These remarks have been placed in the body of the paper.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 26, 1879.

Dr. E. L. Keyes, President, in the Chair.

THROMBOSIS OF PRIMITIVE ILIAC ARTERY.

Dr. Post presented a specimen of thrombosis of the primitive iliac artery, which had been removed from the patient whose gangrenous leg was exhibited at the previous meeting. The patient died two days after the operation. The thrombosis completely plugged the primitive iliac and extended upward into the aorta, several inches above the bifurcation, but only partially obliterating that vessel. The plug also extended into the femoral and its branches. Whether the thrombosis originated in arteritis or in calcification of the arteries, it was impossible to say.

RESECTION OF ANKLE-JOINT.

Dr. Post also presented the lower extremities of the tibia and fibula which he had removed the Thursday previous by exsection. The patient, aged thirty years, was admitted into the Presbyterian Hospital, during the service of Dr. Shrady, with a compound complicated fracture of the lower extremities of the tibia and fibula. The patient was admitted on the third day after the accident, the parts being in a swollen and inflamed condition. The wound was cleansed with solution of carbolic acid, and also dressed with the same, the parts being kept in as good position as was possible. In the course of two or three days afterward erysipelas developed, and the patient was transferred to the hut. Free incisions were made in the soft parts, evacuating quantities of broken-down material. In the meantime the soft parts over the internal malleolus had sloughed, exposing the bone to the extent of several inches. The lower fragment, became loose in the course of the following month and was removed by Dr. Shrady. During the months which passed since that time the parts had been very nearly *in statu quo*, the lower end of upper fragment presenting itself in the wound, and the ankle-joint remaining open and discharging pus. It was supposed that the bone being necrosed would separate in due time. Recently, on examining the part and finding no tendency toward separation, and concluding that there was no indication for longer delay, Langenbeck's operation for sub-periosteal excision of ankle-joint was performed. The bones were sawed off an inch and a half above their lower extremities. Neither tendinous sheath, nerve or vessel in the neighborhood was injured during the operation. After the removal of the ends of the tibia and fibula it was found that the upper part of the astragalus was softened. That portion of the bone was accordingly removed by the ring-scraper. The limb was then placed on a plaster apparatus, free drainage being established by means of fenestra appropriately placed.

ANTISEPTIC DRESSINGS IN COMPOUND FRACTURE.

Dr. Howe asked if antiseptic dressings were used in this case when the fracture was admitted to the hospital.

Dr. Shrady answered in the negative. In his opinion, too much time had elapsed from the receipt of the injury to allow of any benefit from the full antiseptic treatment. However, the wound was kept clean, drainage was established, and carbolic lotion was freely applied.

Dr. Howe referred to a case of compound fracture of the ankle-joint which was admitted to St. Francis' Hospital. In that case the full antiseptic method was used immediately after the accident, and the case progressed without an unfavorable symptom.

Dr. Keyes referred to a similar case treated within four hours after the accident, and in which the result was equally satisfactory.

Dr. Howe exhibited a specimen, consisting of the lower ends of tibia and fibula, which he had removed by exsection under Lister.

In conclusion, Dr. Howe remarked that there was no comparison to be made between the advantages of the Lister method with the other methods of dressing wounds.

POISONING BY CARBOLIC ACID—INJECTION INTO AN ABSCESS.

In this connection Dr. Post related the following case of poisoning by carbolic acid:

A boy about five years of age was brought to the clinic of Dr. Post with a subacute abscess in the gluteal region, connected with old disease of the hip-joint. For a week or two before that time the patient had suffered from severe pain in the part. Fluctuation being discovered, Dr. Post made an incision, evacuating two or three ounces of pus. The cavity thus left was injected with a solution of carbolic acid, according to the method advised by Mr. Callender of London. Three injections were used each time, the contents of the sac being pressed out. A drainage tube was then introduced, and a compress and bandage applied. The child was left in the adjoining room at the close of the clinic. Nothing was noticed in the condition of its pulse or respiration to indicate anything unusual. During the same afternoon Dr. Post was summoned to the college to see the child who was said to be dying. It was discovered apparently asleep, some time after the clinic, by the clerk of the college. The latter not being able to arouse the patient, sent for Prof. Weisse, who was in the building at the time. Dr. Weisse, on examining the case, found the radial pulse absent, the skin pale, cold and damp, the respiration short and hurried, and over a hundred per minute. He immediately administered a hypodermic injection of twenty-five minims of brandy. The patient rallied but slightly from this. The pupils being contracted to the size of mere pin-holes, Dr. Weisse administered a hypodermic injection of five

drops of extract of belladonna, which he followed by another injection in five minutes afterward. The pupils then became extremely dilated, the pulse was distinctly perceptible at the wrist, the respiration from over a hundred per minute came down to seventy. In this condition the patient was sent to Bellevue Hospital, where he has continued to improve. Dr. Post thought that the case was one of carbolic acid poisoning.

NOVEL ARTERIAL DISTRIBUTION OF ARTERIES AT BASE OF SKULL—BUT ONE INTERNAL CAROTID ARTERY.

DR. WYETH presented an injected specimen of the arterial arrangement, at the base of the brain, in a man aged thirty-five years, who had but one internal carotid artery. The right common carotid was present and normal. The left common carotid, about half the ordinary size, sprang from the arch of the aorta as usual, and terminated in the distribution of the left external carotid. There was no carotid canal on this side.

The right internal carotid divided into the anterior and middle cerebral, and gave off a large posterior communicating branch, which joined with the basilar. From this right (and *only*) posterior communicating branch the right posterior cerebral was derived. The right anterior cerebral quite large, divided into three branches, one of which crossed underneath the corpus callosum to the right anterior lobe of the brain. The basilar gave origin to a large trunk which passed obliquely forward and to the left, giving off in succession from behind forward the left posterior choroid, posterior cerebral, anterior choroid, and left middle cerebral which pursued its usual course along the fissure of Sylvius. From this last vessel a very small branch about two centimetres long crossed obliquely to the right, to join the right anterior cerebral. This was the substitute for the anterior communicating. Dr. Wyeth stated that the absence of the internal carotid was an exceedingly rare occurrence. In one hundred and twenty-one consecutive dissections he had made of the surgical triangles of the neck, this was the only case he had seen in which he had failed to find this abnormal arrangement in a large number of other dissections, of which no notes were made. Only two other cases are recorded. *Koberwein* states he had seen a skull in some European Museum with only one carotid canal. Dr. Eugene Peugnet, of New York, reports the other case in an operation performed by him in 1876. See MED. RECORD, Vol. XI., 1876. The skull and specimen are contributions by Dr. Wyeth to the Wood Museum of Bellevue Hospital.

DR. FOREST presented a heart removed from an infant four months old, who had died without any symptoms which might lead to a diagnosis. At the autopsy the organ contained an organized clot in the right ventricle. The brain was not examined. In answer to a question, he stated that the foramen of Botal was not patulous.

DR. FLINT thought that death was probably induced by embolism of pulmonary artery. The Society then went into Executive Session.

THE PLAGUE.—There have been no new cases within the infected area on the Lower Volga since February 9th, and the rigid quarantine that has been preserved is being somewhat relaxed. Sporadic cases of what is called the plague still appear in various parts of the country. Dr. Botkine takes the ground that these are genuine cases, and that the disease is now milder than it was in former epidemics.

Correspondence.

THE COMPLIMENTARY DINNER TO DR. S. D. GROSS.

(Special Correspondence.)

PHILADELPHIA, April 12, 1879.

THE complimentary dinner tendered to Prof. Samuel D. Gross, in commemoration of his fifty-first year in the practice of surgery, took place on Thursday evening, April 10th, at St. George's Hotel, southwest corner of Broad and Walnut streets, Philadelphia. The original plan had been that the dinner should be held at the Union League Club, but the accommodations not proving sufficient for the number of guests expected, the location was changed to the St. George Hotel. The large dining-room of the hotel was richly decorated with plants and flowers. The music was furnished by Carl Sentz's orchestra.

The subscriptions to the dinner ($10 each) were limited to one hundred of Prof. Gross's professional friends in Philadelphia. Among the invited guests present were Professors Lewis A. Sayre, James R. Wood, Austin Flint, Sr., Austin Flint, Jr., and Alfred C. Post, and Drs. George F. Shrady, Wm. Bozeman, and M. J. Asch, of New York City; Drs. Van Bibber and Allen P. Smith, of Baltimore; Surgeons Basil Norris and George Otis, U. S. A., of Washington; Prof. Benjamin Silliman, of Yale College; Prof. David W. Yandell, of the University of Louisville, Dr. Gross's successor in the chair of surgery in that institution; Prof. Theophilus Parvin, of Indiana; Dr. Jamar, of Maryland; Dr. Bowen, of New Jersey; Dr. Cardeza, of Delaware; Dr. R. B. Cole, of California; Dr. Traill Green, of Easton, Pa.; Drs. Helsby, Lyon, and Crawford, of Williamsport, Pa.; Dr. Given, of Clifton, Pa.; Dr. Kerlin, of Media, Pa.; Dr. Herr, of Lancaster; Drs. Craig and Sineawearer, of Columbia, Pa.; Dr. Bland, of Pottsville, Pa.; and Dr. Anderson, of Ardmore, Pa. Among the prominent Philadelphia physicians present were Profs. Robert E. Rogers, Ellerslie Wallace, Joseph Pancoast, J. Aitken Meigs, William Thomson, and J. M. Da Costa, of Jefferson Medical College; Profs. D. Hayes Agnew, James Tyson, Wm. Goodell, and Harrison Allen, of the University of Pennsylvania; and Drs. S. W. Gross, S. Weir Mitchell, Thomas Kirkbride, Ellwood Wilson, Richard J. Levis, Thomas G. Morton, J. Ewing Mears, Albert H. Smith, E. B. Gardette, Addinell Hewson, John H. Brinton, John H. Packard, and Andrew H. Nebinger.

Dr. David Yandell came from his Kentucky home loaded down with flattering messages from Dr. Gross's friends in Louisville. President Lyon, of the Detroit Academy of Medicine, sent the following:

DR S. D. GROSS, *Philadelphia:*

The Detroit Academy of Medicine send hearty congratulations on the occasion of this jubilee in your professional life. May years of work crown with new honors one of whom America is justly proud.

A. B. LYON, *President D. A. M.*

Other congratulatory messages were read from Professors Oliver Wendell Holmes and Nathaniel Bowditch, and Dr. Horatio Storer, of Boston; from Professors Wm. H. Van Buren, Fordyce Barker, Willard Parker, Frank Hastings Hamilton, and Henry B. Sands, of New York City; from Surgeon-General Barnes and Surgeon Billings, U. S. A., of Washington; from Drs. Chaillé and Richardson, of New Or-

leans; from Prof. Christopher Johnson, of Baltimore; from Prof. Cabell, of the University of Virginia; from Prof. N. S. Davis, of Chicago; from Professors Hogden and Gregory, of St. Louis, and from Dr. Kimlock, of Charleston, S. C.

Prof. Gross sat at the head of the table, with Prof. Agnew, the presiding officer of the evening, on his left, and Prof. Austin Flint, Sr., on his right. The congratulatory address to Dr. Gross, the first event on the programme, was delivered by Dr. Agnew, who, as he sat down, touched Dr. Gross on the shoulder and said: "Allow me, in the name of your professional friends, to pin this token on the lappel of your coat." It was a gold medal, set with diamonds and brilliants, and bearing on its reverse this inscription:

"Presented to Dr. S. D. Gross by his medical friends, in commemoration of his fifty-first year in the profession, April 10, 1879."

Dr. Gross responded as follows:

"In rising to respond to the toast offered by the distinguished chairman, I feel deeply oppressed by what Dr. Rush has so well described as 'suffocated excitement.' You need not be assured how much I appreciate the honor conferred by the occasion and by this warm reception. The sentiments embodied in the toast touch my heart, and I should indeed be dead to all the finer feelings of my nature if I did not tender you my most cordial and respectful acknowledgments. It is no light compliment to be in such a presence, or to be the guest of such a company. To merit the approbation of my professional brethren and of good men generally has ever been my highest ambition, as it must be of every honest and virtuous citizen. The offer of a public dinner, extended to me a few weeks ago by a committee of my professional friends, took me completely by surprise, and would probably have been promptly declined if it had not been accompanied by such kind and flattering words as at once to satisfy me that they came from the heart. The commendations which you have bestowed upon my private character and public services as a practitioner and teacher of surgery are measured, I am conscious, rather by your own generous feelings than by any deserts of mine. Whatever value those services may possess, it is no ordinary consolation to me to know that they are appreciated by men among whom I have lived for nearly a quarter of a century, with many of whom I have been brought into frequent contact in various relations of life—often, indeed, under circumstances of a most trying kind—with some of whom I have been officially associated, and with none of whom, thanks be to God, I have ever had one word of misunderstanding.

"It is not a pleasant thing to speak of oneself, but there are a few circumstances in the history of my uneventful life to which I may perhaps be pardoned for referring upon this occasion. I have grown old in the profession, as pupil and practitioner for fifty-four years, my graduation dating back to March, 1828. A little over one month ago I closed my thirty-ninth course of lectures on surgery. If to these thirty-nine years be added two years spent as demonstrator of anatomy in the Medical College of Ohio, and four years passed in the medical department of the Cincinnati College as professor of pathological anatomy, it will be perceived that my life as a public teacher extends over a period of forty-five years. During all this time it has been my good fortune to miss few lectures, either from sickness or any other cause. If my teaching has not always been of the best quality it has been as good as I knew how to make it. Whatever estimate may have been placed upon it by those who listened to it I can solemnly declare that it has always been earnest and conscientious, with an eye single to the interests of my pupils, the truths of medical science, and the honor and dignity of the profession. On no occasion have I entered the amphitheatre without due preparation. One of the great objects of my early professional life was to qualify myself for the occupation of a public teacher. This idea, which haunted me as I sat upon the hard benches of my alma mater, like the demon of Socrates, gave me no rest day or night. My first effort in this direction was made in this city, at the Franklin Institute, in the spring of 1830, the subject being general anatomy, a branch of study then little understood or cared for in this country. The effort, however, proved to be an abortive one. The novelty of the subject, my own inexperience, and the paucity of students in the city at that season of the year were the causes of my failure. Finding practising and lecturing in so large a city to be up-hill work, I removed to Easton, in this State, whence, after two years and a half spent in earnest work, I went, in 1833, to Cincinnati as demonstrator of anatomy in the Medical College of Ohio. From this institution, after a service of two years, I was called to the chair of pathological anatomy in the Cincinnati College, in which I gave the first regular and systematic course of lectures on that most important branch of anatomy ever delivered in this country. In 1840 I was invited to the chair of surgery in the University of Louisville. In 1850 I became the successor of Dr. Valentine Mott in the University of New York, but returned after the close of the session to the school in Kentucky. In 1856 I accepted the chair of surgery in my alma mater, unanimously tendered me by its honorable Board of Trustees.

"Having been thus actively engaged for so many years as a public teacher, it is not surprising that my pupils should be scattered over the country, while not a few of them are successfully practising in foreign climes. Upwards of five thousand diplomas bear my signature. Of the thirty-seven colleagues with whom I have at various times been associated, twenty-six have fallen by the wayside, for the most part ripe in years and full of honor, leaving eleven survivors, among others Willard Parker, Austin Flint, and John W. Draper, of New York; Benjamin Silliman, of New Haven, and our distinguished townsman, Joseph Pancoast, five men of whom any profession in any country might justly be proud. It has been said that youth is a blunder, manhood a struggle, and old age a regret. If this be true I have not realized it in my own person; nor need it be true of any one who is true to himself. Struggles of some kind or another are almost the inevitable lot of every man who is not born with a silver spoon in his mouth. I certainly had mine, but they were the struggles of early life, and I thank God for them, for they taught me patience and perseverance and self-reliance, and were powerful aids in developing character. These struggles did not discourage me. On the contrary, I felt as Sheridan did when he made his maiden speech in the British House of Commons—that it was in me and would come out of me; or, as Erskine expressed it on a similar occasion, I felt as if my children were tugging at my coat and urging me on to industry and perseverance that I might supply their necessities. A brave man never yields to despair. His motto is 'Perseverantia omnia vincit.' This has been my motto, and whatever success I may have achieved is due to persistent effort and to a definite aim in life without any faltering or misgiving in regard to the final issue. I have never lost sight of the fact that what a man

soweth he shall reap, or that 'if the spring show no blossoms, autumn will show no fruit.'

"Much has been said about the inspiration of genius. The greatest efforts that have ever been made at the forum, in the pulpit, or in the senate, in ancient or modern times, were the result of hard study and patient labor. Patrick Henry, William Pinckney, Rufus Choate, and others like these, never made a great argument or a great oratorical display without preparation, and the same is true of every profession and every pursuit. After fifty years of earnest work I find myself still in the harness; but although I have reached that age when most men, tired of the cares of life, seek repose in retirement and abandon themselves to the study of religion, the claims of friendship or the contemplation of philosophy, my conviction has always been that it is far better for a man to wear out than to rust out. Brain work, study, and persistent application has been a great comfort to me, as well as a great help; it has enhanced the enjoyment of daily life and added largely to the pleasures of the lecture-room and of authorship; indeed it will always, I am sure, if wisely regulated, be conducive both to health and longevity. A man who abandons himself to a life of inactivity after having always been accustomed to work is, practically, dead.

"In taking a retrospect of my life I have no regrets. I console myself with the belief that I have not lived wholly in vain, and that while much remains undone that might and should have been done, it might be reasonable to suppose that at least some of the seed which I have sown have produced good fruit. It is not given to every man to be a Harvey, a Hunter, a Jenner, a Bichat, a Morton, a Paget or a Virchow. 'By the grace of God,' says St. Paul, 'I am what I am.' No man can rise superior to himself. What is fame? Is it a phantom or is it a reality? Alas! too often the former; too seldom the latter. Few medical works, however meritorious, outlive their authors, and no sooner does a teacher retire from the field of his labor than his pupils worship other gods. Happy, thrice happy, is he who in the evening of his life, as he reviews his past conduct, can say to himself, 'I have been true to my profession. I have been ambitious of its glory; I have done nothing to tarnish its escutcheon.' As I look back through the dark vista of half a century, what memories crowd upon my mind! Kingdoms have crumbled to pieces; new dynasties have sprung up; the world has been drenched in blood by contending armies; millions of human beings have been swept away by pestilence and famine; civilization, commerce, the arts and sciences, religion and education have found new homes; the uttermost parts of the globe have been explored by intrepid navigators and adventurous travellers; time and space have been annihilated by the telegraph, and the employment of steam and the application of machinery have changed the occupations of man and thrown upon us a surplus population, which the wisest statesmen know not how to dispose of. The art and the science of medicine have been completely revolutionized and enriched to an extent which fifty years ago would have baffled the wildest conceptions. During these vast changes, so pregnant in beneficence to mankind, America has not been idle. If she had contributed nothing more to the stock of human happiness than anæsthetics, the world would owe her an everlasting debt of gratitude. The fanciful and mischievous speculations which characterized medicine in the days of my youth have been replaced by sober facts, founded upon more carefully conducted observations and more rational deductions. In preventive medicine a new field has been opened which, if properly explored and cultivated, as it seems destined to be, will add millions of years to the life of the human race. Oh! for a glance at the profession half a century hence, when man, enlightened and refined by education and redeemed from the thraldom of ignorance and superstition, shall reflect more perfectly than he now does the image of his Maker.

"I thank you, Mr. Chairman, and you, gentlemen, who have honored me with your presence here this evening, for the patience and attention with which you have listened to my rambling remarks. Allow me, before I take my seat, to wish you, one and all, prosperity and happiness, and to drink your health with a heart brimful of gratitude for the many favors that have been showered by my professional brethren upon me."

Professor Rogers delivered the address of welcome to the guests, and Prof. D. W. Yandell replied. The toasts were: "To American Surgery," replied to by Prof. A. C. Post; "The Medical Service of the Army and Navy," by Surgeon Basil Norris; "The Medical Profession," by Dr. Traill Green, and closing remarks were made by Prof. Silliman. * * *

PLEURO-PNEUMONIA IN CATTLE.

DEPARTMENT OF HEALTH, 66 Court Street.
BROOKLYN, April 14, 1879.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Your correspondent, R. W. Finlay, impeaches the State authorities, charged with the extermination of the *bovine lung fever*, with mistaking *simple pleuro-pneumonia* for the specific disease in question. His charge would be a serious one if founded on a substantial basis; but as it is, it is difficult to correctly characterize the statements which he advances in the name of argument. The cattle in the *Blissville distillery stables were not affected with contagious pleuro-pneumonia*, because Professor Williams, in opposition to Professors Duguid, McCall, and Walley, pronounced that steers *shipped at Portland, Me.*, were not so affected. If Mr. Finlay has any private information showing that the cattle shipped on the *Ontario* from *Portland, Me.*, were taken from the Blissville stables, it will go far to settle the question as to the nature of the disease about which the professors differed at Liverpool. If he has not, perhaps he will kindly enlighten your readers as to the possible connection between the cattle shipped at Portland and those in the Blissville stables.

"Veterinary surgeons and stock-raisers in various parts of the country . . . have failed to discover the innumerable quantity of animals affected, as reported in the daily papers." Mr. Finlay is welcome to his empty honor of demolishing this man of straw, for whom the State authorities are in no sense responsible. This disease exists in a comparatively limited area on the Atlantic seaboard, and its extinction here is a possible and comparatively easy task, while the neglect of it means the gravest injury to the future live stock interests of the country. "At Blissville the mortality from the disease was slight. The majority of the animals were slaughtered and sold in the markets as beef. This is not in keeping with a malignant disease *theory*." If Mr. Finlay and his colleagues had been "well acquainted with the history and pathology of the disease in Europe," they would have known that this is precisely the European record of this disease. In the large cities of Great Britain

and the Continent, it is altogether exceptional for a cow to die of pleuro-pneumonia. The dairymen purchase mainly cows in good condition, and when the first symptoms of the malady are shown, they send them to the slaughter-house for beef. It is a common remark with them that they would get rich if they could only keep the cows alive for three months after purchase.

But to return to the Blissville stables. Between the time of the first examination by Professors McEachran and Liautard and Mr. Gadsden and the establishing of quarantine, nearly 300 cows had been removed from these stables for slaughter or otherwise, so that comparatively few *diseased cattle* were left. Yet, of the 600 that remained, we had to send sixty-four to the offal-dock, and about 150 more, slightly affected, went to the Johnson Avenue slaughter-houses. In other words, we slaughtered and furnished indemnity certificates for over one-tenth of the animals left after the diseased had been weeded out, to the best of the owners' knowledge; while, by adding those in which traces of the malady were found, we had a grand total of nearly one-third of the entire stock affected. It will, perhaps, puzzle Mr. Finlay to find another such record in the history of the disease. Mr. F. cannot claim any necessary ignorance of these facts, as this thing was not done in a corner, and every facility was afforded to himself and colleagues for examinations and autopsies on any condemned animals they might select.

It would be easy to multiply cases showing the contagious nature of this affection in and around Brooklyn and New York, but I shall not encroach on your valuable pages further than to mention one or two instances of its conveyance to country districts, where the source of the malady could be undoubtedly traced:

Mr. Wheelock, of Roslyn, L. I., bought two cows from a New York dealer. They sickened soon after, infected the rest of his herd, and six were lost before the plague could be stayed.

Mr. Kenyon was so satisfied it was not contagious, that he purchased and took home two of Mr. W.'s cows. One of these sickened and died, and infected several of his herd, one of which had to be destroyed to prevent the maintenance of the contagion.

Mr. Post, of Westbury, L. I., purchased a cow from a passing herd, said to have come from a swill stable near Brooklyn. She infected his herd and his brother's, and, after heavy losses, they found it needful to kill all the survivors, and begin anew with fresh stock.

Mr. Gilbert Miller, of Katonah, Westchester County, took in a Jersey cow, sent from Mott Haven as a present to his son-in-law. Three months later, his herd was generally infected, and the Jersey cow and two more out of six died.

Mrs. Robertson's herd, occupying a place across the road, suffered from the disease three months later, and five out of twelve died.

Mr. Collins, Fiftieth Street, New York, had a Jersey cow sick with a sporadic (?) disease of the respiratory organs, from which she recovered under the care of a veterinarian. Her calf was sent to the farm of Solomon Mead, of Greenwich, Conn. The calf sickened and died in a little over two weeks after arrival, but infected the whole herd, five of which had died up to the time of my visit.

One of Mr. Mead's cows broke out and went into the herd of Mr. Griffin, and at the time of my visit Mr. G. had lost one and had two sick.

These are examples of what we meet with every day. If Mr. Finlay can see this disease without tracing similar channels of contagion, I fear that his blindness must be wilful.

I cannot conclude without a reference to Mr. Finlay's sneer at the "stamping out" of the disease. The most superficial acquaintance with the history of this malady would have shown him that this is the only successful method of dealing with this and other fatal contagions of animals. The method was inaugurated in England in the early part of the eighteenth century by advice of Mr. Bates, Surgeon to the Royal Household, for stamping out rinderpest. It was again successfully adopted in the middle of that century to root out a new importation. It was a third time put in force in 1866, and a fourth in 1877, to suppress invasions of the same plague. It was repeatedly resorted to to cut short ovine variola on English soil, and it is now being put in force against the lung fever. On the Continent of Europe it is now recognized as the only economical and effective mode of dealing with rinderpest, and the following countries have successfully resorted to it for the extinction of the bovine lung plague: Switzerland, Mecklenburg, Oldenberg, Schleswig-Holstein, Denmark, Norway and Sweden, and the plague-stricken Holland herself is now putting it in practice. In America it has been repeatedly successful in Massachusetts and Connecticut.

It is doubtless possible to surround the patients and their products with disinfectants, to secure a certain percentage of recoveries, and to let the malady expire by its own self-limitation. But the expense of such a course would far exceed the value of the animals saved, and when attempted on a large scale, over half a dozen different States, it would be subject to incessant lapses and failures, and would thus become a means of spreading the disease. As all sanitarians must admit, that method is the best which will most speedily and effectually extinguish the poison, and do this at the cheapest rate. All of these conditions are met by the *stamping out* process, and whatever retards or hinders this is essentially unsanitary and wasteful. Into this domain no moral question intrudes; it is a purely pecuniary question, and if it could be solved by the slaughter, not of the sick only, but of all the cattle in the infected districts, it would be a much more economical course than to allow the malady to spread till it reaches our open Western ranges, where all attempts at *stamping out* would only repeat the disastrous failures of the steppes and of the unfenced African and Australian pastures.

Yours, &c.,
JAMES LAW.

Obituary.

ISAAC HAYS, M.D.,

OF PHILADELPHIA, PA.

DR. ISAAC HAYS, the editor of the *American Journal of the Medical Sciences*, died late on Saturday, April 12, at his residence, 1525 Locust Street, Philadelphia, after an illness of two months, in the eighty-third year of his age. Dr. Hays was born in Philadelphia, on July 5, 1796. He was educated at the University of Pennsylvania, and graduated from the department of arts in 1816, and from the medical school four years later. He was an office student of the late Nathaniel Chapman, M.D., and a classmate of the late

Dr. George B. Wood. In his profession he was principally famed as an oculist, although his practice was not always limited to this specialty. He began his connection with the *American Journal of the Medical Sciences* in February of the year 1827. He was, therefore, at the time of his death, the oldest living editor in the United States, having been on the staff of the journal for fifty-two years.

When, in 1875, the question was raised as to who was really the oldest living American editor, Henry C. Lea, in an article in the New York *Evening Post*, entitled "Reminiscences and Contemporary Sketches of American Book Publishers," said: "I believe Mr. Bryant has been longer in the editorial chair, but doubt whether Dr. Hays has another senior." William Cullen Bryant's death gave Dr. Hays the undisputed title. The paper of which he was editor was first started in 1820, under the title of the *Philadelphia Journal of Medical and Physical Sciences*, with several eminent physicians—among them Dr. Chapman—as editors. Matthew Carey & Sons were the publishers. Dr. Hays took the place of Dr. Goodman, who resigned to accept the professorship of anatomy in Rutgers Medical College, New York. He immediately became virtually the editor, and at once instituted some important changes, imparting to it a more broadly representative and national character by securing the co-operation of the leading medical minds in all parts of the country, and by the adoption of a new title, the *American Journal of the Medical Sciences*.

In November, 1827, Dr. Hays became sole editor, and so remained until 1869, when his son, Dr. I. Minis Hays, who had graduated from the medical department of the University of Pennsylvania in the previous year, became associated with him. In the year 1843 the success of this journal led to the establishment in connection therewith of a monthly, entitled the *Medical News*, and in 1874 to that of the *Monthly Abstract of Medical Science*, both under the same editorial supervision. Under the name of the *Journal*, when Dr. Hays first took charge of it, were printed the words, "What does the world yet owe to American physicians or surgeons?" This theme was discussed from time to time with much vigor and pointedness in the editorial columns. The ownership of the *Journal* has always remained in the same family, Henry C. Lea, the present publisher, being a grandson of Matthew Carey. It was particularly prosperous toward the close of 1871, and its circulation has been steadily increasing ever since then. Of late years the main duties of editor have fallen upon Dr. I. Minis Hays.

Dr. Hays was a member of the famous Dr. Caspar Wistar party, known as the "Wistar party." Dr. Wistar had been in the habit of giving a social dinner and party at his private residence on every Saturday night. The dinners became a standing thing, and when Dr. Wistar died several of his gentlemen friends formed the aforesaid association. It was composed of twenty gentlemen, and its object was merely social. Among its members were Horace Binney, William Meredith, John Sergeant, Gen. Cadwalader, John K. Kane, Henry C. Carey, Dr. George B. Wood, and Professor Bates.

Dr. Hays edited Hall's edition of "Wilson's American Ornithology," in 8 vols., published in 1828; "Hoblyn's Dictionary of Medical Terms," published in 1846; "Lawrence on Diseases of the Eye," published in 1847; and "Arnott's Elements of Physics," published in 1848.

While editing the *Journal* and all these books, he attended regularly an almost illimitable number of medical and scientific societies. He was among the founders of more than a dozen associations, the oldest member of a dozen more, the chief officer of another dozen, and the surgeon and attending physician to several hospitals.

He belonged to the American Philosophical Society, was at one time a curator, and for a number of years a member of its council. He was one of the earliest members of the Philadelphia Academy of the Natural Sciences, and from 1865–69 was its president. In the Philadelphia College of Physicians, which he joined in 1835, he was very active and was particularly instrumental in locating it at its present site. There are now but three members of the college living who belonged to it when Dr. Hays came in. When the project of establishing the Franklin Institute of Philadelphia was first discussed, Dr. Hays took a very prominent part in the matter, and when he died, was its eldest member. He was a member of the staff of Mill's Eye Hospital, and was one of the founders of the American Medical Association, having been the author of its code of ethics, adopted in 1869. This code, which inculcated the relations of the medical profession to each other and to the profession at large, has since been adopted by every State and county medical society in the Union.

There were many other societies that claimed Dr. Hays either as a regular or honorary member. He kept in his desk a huge pile of letters mailed to him at various times, informing him of his elections. Letters from societies in Boston, Chicago, Cincinnati, and other large and small cities were among the pile. Though never abroad, he belonged to various European societies, among which were the Royal Society for Northern Antiquities, of Copenhagen; the Medical Society of Hamburg, and the Université D'Ophthalmologie, of Paris. Dr. Hays possessed a very extensive library. The walls of his study were lined with books. Many volumes were of great rarity.

In an editorial notice in the New York *Evening Post*, in 1875, one of Dr. Hays's more recent works, William Cullen Bryant, its then venerable editor, now dead, took occasion to allude complimentarily to Dr. Hays's long editorial labors, comparing them with his own, and substantiating Mr. Lea's statement in expressing the opinion that, next to himself, Dr. Hays was the oldest living editor in continuous service in America.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 6 to April 12, 1879.

TOWN, F. L., Major and Surgeon. Par. 4, S. O. 58. A. G. O., March 11, 1879, directing him to accompany recruits to the Pacific Coast, is revoked, and he will proceed at once to Ft. Vancouver, W. T., and report in person to the Commanding General of Dept. of the Columbia for assignment to duty. S. O. 82, A. G. O., April 5, 1879.

HARTSUFF, A., Major and Surgeon. Assigned to duty as Post Surgeon at Ft. Wayne, Mich., relieving Asst.-Surgeon J. B. Girard. S. O. 55, Dept. of the East, April 10, 1879.

GIRARD, J. B., Capt. and Asst.-Surgeon. Relieved from duty in Dept. of the East, to accompany the 22d Infantry to Dept. of Texas, and, on arrival, report to the Commanding General of that Dept. for assignment to duty. S. O. 83, A. G. O., April 7, 1879.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Now

on sick leave, relieved from duty in Dept. of Texas, and to report in person to the Commanding General Dept. of Dakota for assignment to duty. S. O. 87, A. G. O., April 10, 1879.

The following named medical officers, having been found by an Army Retiring Board incapacitated for active service, have been granted leave of absence until further orders, on account of disability, to take effect April 1, 1879: Surgeon, J. H. Frantz; Asst.-Surgeons, W. E. Whitehead, T. F. Azpell, H. J. Phillips, J. W. Buell. S. O. 81, A. G. O., April 4, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 12, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Apr. 5, 1879..	0	1	164	1	16	31	0	0
Apr. 12, 1879.	0	8	178	1	23	25	3	0

Trichinosis.—Dr. E. J. Bergen, of Martinville, Somerset County, N. J., reports four case of trichinosis in one family. The infected pork was said to have been thoroughly cooked. Death occurred in the father as the result of the disease four weeks after the commencement of the attack.

American Medical Association.—The Thirtieth Annual Session will be held in the city of Atlanta, Georgia, commencing on Tuesday, May 6, 1879, at 11 o'clock A.M. The following are the lists of sections, with their officers—Practice of Medicine, Materia Medica, and Physiology: Dr. Thos. F. Rochester, Buffalo, N. Y., Chairman; Dr. W. C. Glasgow, St. Louis, Mo., Secretary. Committees appointed to report to this section—On Clinical and Meteorological Records: Dr. N. S. Davis, Illinois, Chairman; Effect of Climate in Colorado on Pulmonary Phthisis: Dr. C. Denison, Col., Chairman. Obstetrics and Diseases of Women and Children: Dr. E. S. Lewis, New Orleans, La., Chairman; —— ——, Secretary. Surgery and Anatomy: Dr. Moses Gunn, Chicago, Ill., Chairman; Dr. J. R. Weist, Richmond, Ind., Secretary. Medical Jurisprudence, Chemistry, and Psychology: —— ——, Chairman; Dr. L. M. Eastman, Baltimore, Md., Secretary. State Medicine and Public Hygiene: Dr. John S. Billings, Washington, D. C., Chairman; Dr. J. T. Reeve, Appleton, Wis., Secretary. Ophthalmology, Otology, and Laryngology: Dr. H. Knapp, New York, Chairman; Dr. X. C. Scott, Cleveland, Ohio, Secretary. The following Committees are expected to report—On Prize Essays: Dr. Robert Battey, Rome, Ga., Chairman. On Necrology: Dr. J. M. Toner, Washington, D. C., Chairman. On Catalogue of National Library: Dr. H. C. Wood, Philadelphia, Pa., Chairman. On Recommendations in President Richardson's Address: Dr. T. G. Richardson, New Orleans, La., Chairman. On Ozone: Dr. N. S. Davis, Chicago, Ill., Chairman. On Sanitaria for Consumptives: Dr. H. I. Bowditch, Boston, Mass., Chairman. On Dr. Seguin's paper on the Intervention of Physicians in Education: Dr. R. J. O'Sullivan, N. Y., Chairman.

Reduced Rates of Fare for Delegates to the Meeting of the American Medical Association.— For the accommodation of delegates, their families and friends, the management of the Kennesaw Route (Western and Atlantic Railroad) have arranged to place on sale, the 4th and 5th of May, tickets to Atlanta, Ga., and return, and good until the 20th of May, as follows: Washington, $27 75; Alexandria, $27 50; Charlottesville, $25 85; Richmond, $24 65; Norfolk, $25 00; Petersburg, $24 65; Lynchburg, $23 25. The following schedule is in effect: Leave Washington (Va. Midland R. R.), 7 A.M.; Charlottesville (Va. Midland R. R.), 11.55 A.M.; Norfolk (A., M. and O. R. R.), 6.25 A.M.; Richmond (R. and P.), 7.54 A.M.; Petersburg (A., M. and O.), 9.30 A.M.; Lynchburg (A., M. and O.), 2.55 P.M.; Knoxville, 4.14 A.M.; Dalton, 9.06 A.M. Arrive at Atlanta (following day), 12.55 P.M. Pullman sleepers from Washington to Atlanta on this train without change. Delegates will advise Capt. H. L. Peyton, General Agent, 603 Pennsylvania Avenue, Washington, D. C., who will reserve sleeping-car berths.

The New York and Savannah Steamship lines offer members of the Association the special rate of passage from New York to Atlanta, of $19 50, or excursion tickets at $32. The route consists of the four new iron steamships "Gate City" (Atlanta), "City of Savannah," "City of Columbus," and "City of Macon," built in 1877–78. The sailing days from New York are Wednesdays and Saturdays, at 3 P.M., arriving at Savannah in 60 hours, and thence, via Central R. R. of Georgia, to Atlanta, the running time between the two cities being about 18 hours over a steel-rail track. Parties leaving here by the "Gate City" (the newest vessel of the fleet), on Wednesday, April 30th, arrive at Savannah Saturday morning, leave by evening train at 7.30, and arrive in Atlanta at noon on Sunday, May 4th, thus allowing a day in which to visit Savannah on the journey, and a day in Atlanta before the meeting of the Association on the 6th. Steamers leaving Boston, Philadelphia, and Baltimore also connect with the C. R. R. at Savannah; but we know of no arrangement having been made with them for special rates. Boston travellers usually come via New York. The rates named above include meals and state-room on steamer. The latter, to insure a choice, should be secured two or three days in advance, from Geo. Yonge, Agent, 409 Broadway.

Cremation is gaining ground in Europe. The Government of Hamburg has decided to introduce it optionally. It has already been introduced in the same way in Gotha.—*Brit. Med. Journ.*

Aneurism of Carotid and Distal Ligature.— An aneurism of the common carotid was cured recently by distal ligature, the relation of parts not permitting ligation between the tumor and the heart. The operation was performed at the Hospital Santo Antonio in Oporto.

Quackery Two Centuries Ago!—The following note is copied from the Collections of the Maine Historical Society, Vol. 1, Article on the Early Records of York County (Maine), with original extracts: "—1675, July 6. We present Capt. Francis Rayns for presuming to act the part of a midwife; the delinquent examined by the Court, fined fifty shillings for his offence, and paying the fees, five shillings, is discharged."

Original Communications.

THE ADIRONDACK REGION AS A THERAPEUTICAL AGENT IN THE TREATMENT OF PULMONARY PHTHISIS.

(Read before the Medical Society of the State of New York.)

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY, N. Y.

Part I.

Mr. President and Gentlemen of the State Medical Society:—I invite your attention to the Adirondack region as a therapeutical agent in the treatment of pulmonary phthisis. I have long been convinced that the most important factor in the successful management of pulmonary phthisis is to be found in climate. It seems to me that at the present time no subject of medical study is more deserving of attention than the climatic treatment of disease, yet to a student of the medical literature of to-day there is none more confusing and unsatisfactory. Some localities have been considered especially favorable on account of their equability of temperature, others on account of their luxurious vegetation or their peculiarity of soil; some on account of the dryness, others on account of the humidity of the atmosphere. From the data given, widely differing conclusions have been reached by different observers. In regard to the localities which are claimed to be especially adapted to the treatment of pulmonary phthisis, few writers have carefully observed, for any considerable length of time, the effect of the climate upon individual cases, or, if they have so observed, they have not made public the result of such observations; and on this account very definite conclusions as to the relative merits of the different localities have never been reached.

In the preparation of this paper, my object has been to show the effect of the climate of the Adirondack region upon all the cases of well-developed phthisis, which under my observation have given the region an extended trial. I am largely indebted for facts given, and the history of cases, to my friend Dr. Edward L. Trudeau, who, a phthisical invalid, took up his residence in this region five years ago.

By way of explanation, I would state that clinically and pathologically I recognize three varieties of pulmonary phthisis, viz., catarrhal phthisis, fibrous phthisis, and tubercular phthisis.

In *catarrhal phthisis*, the primary changes are in the cavities of the alveoli and bronchi, and are epithelial and cellular in their nature.

In *fibrous phthisis*, the primary changes occur in the bronchial and alveolar connective-tissue, and are connective tissue hyperplasias.

In *tubercular phthisis*, the primary changes occur in the lymphoid elements of the lung, associated with connective tissue hyperplasias forming little masses or nodules, which ordinarily are termed tubercles. The development of tubercle in a lung may be preceded or accompanied by an alveolar cellular process, or by a connective tissue hyperplasia, and as the one or the other predominates, so is the duration of the case long or short.

In the later stages of these different varieties of phthisis, it is always difficult and sometimes impossible to distinguish the one from the other; but in the earlier stages, in most cases, the differential diagnosis can readily be made.

The peculiar clinical feature of catarrhal phthisis is, that at the onset the local symptoms are well marked and precede or accompany the constitutional. The local signs may be those of pneumonia or of localized bronchitis of the small tubes, while the peculiar clinical feature of tubercular phthisis is, that at the onset of the disease there are few local signs, while the constitutional disturbance is very marked.

Fibrous phthisis is distinguished from all other forms by its greater chronicity. Usually it commences as a chronic affection, coming on very insidiously. Its chief clinical feature is, that its development is preceded by a chronic bronchitis or pleurisy limited to one lung, or perhaps an unresolved pneumonia. In rare instances, it is developed in the course of some constitutional disease—as syphilis, gout, etc.

These three varieties of pulmonary phthisis not only differ in their origin, mode of development, progress and termination, but necessarily they require different plans of treatment, and are differently affected by climate.

To rightly estimate the effect of the climate of any place or region, it is absolutely necessary that we be able to determine what variety of phthisis it is that is cured or arrested in that locality. Frequently, individuals with catarrhal phthisis will do badly at an altitude at which those with fibrous phthisis will be benefited. Besides, in determining the locality in which phthisical developments will be most likely to be arrested, we must take into account the age and general condition of the individual. For instance, an enfeebled and broken down middle-aged phthisical subject does badly in a high mountain region, but is benefited by the air of the sea.

The region known as the Adirondack region is comprised in that portion of our State which lies north of the Mohawk and west of the Champlain Valley. It may be said to include the counties of Clinton, Franklin, Essex, Hamilton, with portions of adjoining counties, and has an area equal in extent to nearly one-third of the State of New York. Within its limits there is a plateau from 1,500 to 2,000 feet above sea level, 150 miles in length (latitude), and 100 miles in breadth (longitude). On this plateau there are more than two thousand square miles of primitive forests, mostly evergreen, and many hundred lakes and ponds. From the surface of this plateau rise granitic mountain peaks more than five thousand feet in height. The drainage of this table-land is toward Lake Champlain on the east, the St. Lawrence River on the northwest, and the Hudson River on the south. Many of the streams which flow in these different directions intercept each other, and some of them, as well as the lakes, are navigable for light canoes or boats. Occasionally, there are easy portages between these bodies of water, and sometimes we meet with rapids or falls. I doubt whether any region in this country furnishes to the invalid or pleasure-seeker, such a stimulus to out-of-door life.

Mr. Verplanck Colvin, in the conclusion to his report, published in 1874, on the Topographical Survey of the Adirondack Wilderness, uses the following words to express his enthusiasm—words which fitly express the enthusiasm of many another one familiar with this region:

"The Adirondack wilderness may be considered the wonder and glory of New York. It is a vast *natural* park, one immense and silent forest, curiously and beautifully broken by the gleaming waters of a myriad of lakes, between which rugged mountain

ranges rise as a sea of granite billows. At the northeast the mountains culminate within an area of some hundreds of square miles; and here savage, treeless peaks, towering above the timber line, crowd one another, and, standing gloomily shoulder to shoulder rear their rocky crests amid the frosty clouds. The wild beasts may look forth from the ledges on the mountain sides over unbroken woodlands stretching beyond the reach of sight—beyond the blue hazy ridges at the horizon. The voyager by canoe beholds lakes in which these mountains and wild forests are reflected like inverted reality; now wondrous in their dark grandeur and solemnity; now glorious in resplendent autumn color of pearly beauty."

These words are the enthusiastic outburst of one who has a more accurate and comprehensive knowledge of the topography of this region, than has any other man.

It is not surprising that in such a region the tired worker and worn-out invalid find the rest and quiet which is so powerful a restorer of health. Here, as I have already intimated, there is every inducement for one to lead an out-of-door life, the very surroundings infuse new life into the feeble body, and one daily grows stronger and stronger and feels better, scarcely able to tell how or why. One condition which I regard of the greatest importance in seeking a suitable home for a phthisical invalid is here met with, viz.: dryness of soil.

Undoubtedly, a damp warm as well as a damp cold climate acts unfavorably upon phthisical invalids, but the peculiar *dampness* which acts most unfavorably is not usually present in those localities where there is the greatest rain-fall, nor is it present because large bodies of water are in close proximity, but it mainly depends upon the nature of the soil. To avoid this dampness, the soil should be porous and sandy, a loose soil of sufficient porosity to permit the rapid filtering of water from its surface, so that after a heavy rain-fall the surface will soon become dry. All clay soil drains slowly and imperfectly, and the peculiar dampness arises which acts so unfavorably on phthisical invalids. Laennec states, that the dampness arising from such a condition of soil is one of the most certain developing causes of phthisis, and he makes mention of a locality having such a soil, in which the dampness was so constant and of such a character that more than two-thirds of the resident population died of phthisis. In determining the fitness of a locality as a residence for phthisical invalids, I have come to regard the external configuration and conformation of the soil as of greater importance than the amount of rain-fall, or the relative moisture.

The climate of the Adirondack region may be considered a moist, cool climate. The rain-fall is above the average for other portions of the State, and may be roughly estimated at 55 inches. The spring is cool and there is considerable rain until about the middle of June. There is a dry period during the summer, when little rain falls, and the days become hot, while almost without an exception the nights are cool, often cold, and heavy dews fall. There is rarely at any time excessive heat, and during the warmest weather there are but few nights even in August when a blanket is not needed. My friend Dr. Trudeau, who has remained here summer and winter for the past five years, makes the following statement: "That he has never found the mercury above 87° during the past six summers, and this high temperature was only maintained for a few hours during the afternoon. The air during the fall months, with the exception of one or two long rain storms, is bracing and admirably suited to out-of-door life. During the winter the cold is almost uninterrupted, no thawing of any consequence taking place before the month of March. There is a preponderance of cloudy days and snow storms. The mercury, during January and February, frequently for days at a time stands many degrees below zero. As the cold weather usually continues until the end of March, the thawing takes place quickly, and owing to the sieve-like nature of the soil the snow disappears very rapidly, consequently the change from winter to spring is soon accomplished.

There is no marked preponderance of clear days at any season; on the contrary, the sky, especially in winter, is constantly overcast. This cool, cloudy weather is a marked feature of this climate. The altitude varies with the different localities; but the immense plateau which forms the lake region of the Adirondacks is about 1,800 feet above sea-level. The soil is very light and sandy, with here and there rocks, but little or no clay.

There appears at first sight but little to induce one to consider this locality as favorable for persons affected with phthisis. Hitherto heat and cold and absence of moisture, or an equable temperature, have been regarded as necessary in order to favorable results in the treatment of phthisis; but it has been shown by trial that neither cold, nor heat, nor moisture, alone, are all-sufficient factors in guiding us to a right understanding of the most favorable atmospheric conditions for phthisical patients. In a written communication to me Dr. T—— also says: "High mountains, the desert, and the open sea have perhaps given so far the best results in the treatment of chronic chest disease; and yet all these differ widely except in one respect, namely, purity of atmosphere. It is neither hot nor cold air, damp nor dry air, but *pure* air which is necessary to diseased lungs. Many conditions render the atmosphere of these mountains perfectly pure. The elevation of this region, its sandy soil, the undulating nature of the country, which ensures perfect drainage; the absence of cultivation, even of dwellings—all these conditions preclude the presence of telluric or miasmatic poison, and we have a purity of atmosphere unknown in more settled districts. The forests of this region are almost unbroken, stretching over the valleys, covering the mountains often to their very summit, and extending in some directions for nearly a hundred miles, while innumerable lakes dot this elevated plateau, and give moisture to the air. That the atmosphere of such a region, especially when set in motion, should, by its contact with myriads of tree-tops and pine sheaves, become heavily laden with ozone is a natural sequence. Whatever other properties this gas may hereafter be found to possess, we know that it is a powerful disinfectant and Nature's choice agent for counteracting atmospheric impurities. This process, which during the summer months is carried on by all varieties of trees, during the winter months is maintained by the evergreens, while the deciduous trees are deprived of their foliage. Pine, balsam, spruce, and hemlock trees abound, and the air is heavily laden with the resinous odors which they exhale. An agent which it is universally admitted exerts a most beneficial influence on diseased mucous membranes is thus brought in contact with the air-passages, while balsamics, which are also disinfectants, purify the atmosphere, which is constantly impregnated with them. Besides this, the air of the wilderness is optically pure, noticeably free from dust or visible particles of any kind. The invalid, therefore, is here surrounded by a zone of pure air, which separates him, as it were,

from the germ-pervaded world, and his diseased lungs are supplied with a specially vitalized and purified atmosphere, free from germs and impurities of any kind, and laden with the resinous exhalations of myriads of evergreens."

Though as yet but few phthisical invalids have been induced to give the Adirondack region an extended trial, the good results obtained by those who have remained there for any considerable length of time are the strongest arguments in its favor. Dr. T—— writes: "My own personal experience and my personal observation of other phthisical invalids lead me to say that any comparison of the relative good effects of the climate of St. Paul, Minn., or of the South, with that of the Adirondack region is decidedly in favor of the latter." In regard to camp life, he writes: "Camping out, which is the peculiar feature of this place, if done in an intelligent manner, from June to October, I consider an important and beneficial measure in the treatment of phthisis; if done carelessly, it is by no means free from risk. The advantages gained by this mode of life are evident. The phthisical invalid for four months, night and day, lives out-of-doors, in a pure atmosphere; he is quiet, has perfect rest, plenty of good food (for which this mode of life gives an amazing relish); he has no opportunity to daily observe the effect upon other phthisical invalids of the disease from which he is suffering; his surroundings are such that he can lie down whenever standing fatigues him, can eat whenever he is hungry, sleep when exhausted, and dress as suits his own comfort—all of which comforts the requirements of society sometimes interfere with.

"All these things—the breathing of the pure air of the wilderness, the perfect rest, the wholesome food, and early hours—combine to make tent-life a powerful weapon in combating this disease.

"Exposure in inclement weather, which this mode of life at times renders almost unavoidable, is well borne in this climate by phthisical invalids who steadily live out of doors. During the past six years I have never seen any evil results from this mode of life; but I have seen men in camp lose their cough and gain in flesh, while it rained daily, and in the midst of occasional frosts and snow-storms."

Dr. Trudeau expresses himself strongly on this point, having faithfully tried tent-life, and he adds: "Many of the risks supposed to attend out-of-door life exist only in the imagination of the timid;" and he believes that tent-life, and a return to the invigorating, out-of-door existence of the savage is Nature's antidote for a disease which is almost an outgrowth of civilization and its enervating influences.

To proceed to results obtained from a fair trial of this region.

Case I.—Eleven years ago, in the summer of 1867, as an invalid, I first visited this region. For several months previous I had suffered from cough with muco-purulent expectoration, loss of flesh and strength, night-sweats, and other rational and physical signs which attend incipient phthisical development. The only survivor of a family, every member of which (save, perhaps, one) had died of phthisis, I had come to regard my case a critical one. A Southern trip had not relieved if it had not aggravated my phthisical symptoms. In this condition I went into this region and into camp, and when, before the summer months had passed, I came out of the Adirondack or north woods, free from cough, with an increase in weight of about twenty pounds, with greater physical vigor than I had known for years, I very naturally became an enthusiast in regard to them.

My personal experience that summer convinced me that there was something in the air of this region especially adapted to diseased lungs; that, if the climate had no direct influence in arresting or preventing phthisical developments, it certainly allayed bronchial irritation, and the phthisical invalid soon became able to spend the greater portion of his time in the open air; still more, his surroundings were such that if a lover of nature or of sport, he necessarily forgot himself, and thus was nature aided, and vigor and health restored.

I would mention here that my personal experience, as well as my experience since that time in regard to its effect upon others, leads me to believe that, during the warm season, a camp or tent life is of the greatest service to pulmonary invalids, if they are not enfeebled.

From time to time, since that summer, eleven years ago, I have sent phthisical invalids into this region. At first I sent them only during the summer months, but I found that while temporary relief was afforded, and in some instances marked improvement took place, in cases of fully developed phthisis the latter was not permanent, and although the winter months might be spent at the South, yet before another summer came around the disease progressed. Not until 1873 was I able to persuade any phthisical invalid to remain during the winter. The effect of the winter climate on this invalid showed so markedly the benefit to be derived from a winter's residence in this region, that from that time, each winter, others have been induced to remain. Fourteen remained last winter.

A brief analysis of the cases which have been under my own personal supervision, or that of Dr. Trudeau, will, I think, enable us to reach some satisfactory conclusions in regard to the therapeutical effects of the climate of the Adirondack region. They are unselected cases, and the only cases of value, as these are the only phthisical invalids who have remained in the region a sufficient length of time to give the climate anything like a fair trial.

Case II.—Dr. E. L. T., aged twenty-five; family history good; began to lose his health in the winter of 1872. His symptoms very rapidly becoming urgent, he was examined by several physicians. Extensive consolidation at left apex was found, extending posteriorly nearly to angle of scapula; on the right side nothing was discovered save slight pleuritic adhesions at the apex.

He was ordered South, but returned in the spring in no way benefited. On the contrary, night-sweating had set in, and his fever was higher. In the latter part of May he started for the Adirondacks, the ride in the stage being accomplished on an improvised bed. His condition at this time was most unpromising; he had daily fever, night-sweats, profuse and purulent expectoration, had lost his appetite, and was obliged constantly to have recourse to stimulants. Weight about 134 pounds. He began to improve at once, his appetite returned, all his symptoms decreased in severity, and after a stay of more than three months he returned to New York, weighing 146 pounds, with only slight morning cough, presenting the appearance of a man in good health. A few days after his arrival in New York he had a chill, all his old symptoms returned, and he was advised to leave for St. Paul, where he spent the entire winter. He did badly there; was sick the greater portion of the winter. In the spring of 1873 he again went to the Adirondacks. At this time he was in a most debilitated state, was anæmic, emaciated, had daily hectic

fever, constant cough and profuse purulent expectoration.

The marked improvement did not commence at once, as it did the previous summer, and the first of September found him in a wretched condition. I then examined him for the first time, and found complete consolidation of the left lung over the scapula and supra-scapula space, with pleuritic thickenings and adhesions over the infra-clavicular space. On coughing, bronchial râles of large and small size were heard over the consolidated portion of the lung. Over the right infra-clavicular region the respiratory murmur was feeble, and on full inspiration pleuritic friction sounds were heard. I advised him to remain at St. Regis Lake during the winter, and although he was repeatedly warned that such a step would prove fatal, he followed my advice.

From that time he began slowly to improve. Since that time he has lived in this region. At the present time his weight is 158 pounds, a gain of 22 pounds since he first went to the Adirondacks in 1873, and 10 pounds more than was his weight in health. He has slight morning cough and expectoration, his pulse is from 72 to 85, and he presents the appearance of a person in good health. In his lungs evidences still remain of the disease he has so many years combated.

Although he has made three attempts to live in New York, at intervals of two years, each time his removal from the mountains has been followed within ten days by a chill, and a return of pneumonic symptoms —symptoms so ominous that he has become convinced that it will be necessary for him to remain in the Adirondack region for some time to come.

Case III.—In the fall of 1873, Mr. E., aged twenty, with decided hereditary tendency to phthisis, went into the lake region of the Adirondacks. He had then been ill about 18 months, had spent two winters in Nassau, and for the three months immediately preceding his arrival, he had failed very rapidly. When he first consulted me in September, 1873, I found him extremely emaciated, weighing 108 pounds, pulse habitually ranging from 110 to 130, morning temperature from 102 to 103. He had loss of appetite, night sweats, and a constant harassing cough with slight hemorrhages. Physical examination revealed a large cavity on the right side posteriorly, with entire consolidation of the right lung. At the left apex there was also a small cavity with fine crackling râles over the upper third of the left lung. His condition remained desperate during the following winter, but, in the spring he somewhat recovered his appetite, he regained strength, and he had long intervals during which he was entirely free from fever. He spent the spring and summer of 1874 in camp, and his improvement was very marked. A physical examination of his chest in the fall of 1874 showed a marked decrease in the pulmonary consolidation on the right side, the cavity had apparently diminished in size, and vesicular murmurs could be heard below and on either side of it. On the left side the crackling sounds had disappeared, and no signs of cavity could longer be detected, but bronchovesicular breathing was still distinctly heard. His heart was hypertrophied, pulse 88, evening temperature 99⅘, weight 116 pounds. For the succeeding eight months he steadily improved. In June, 1875, after an exposure which it would have been unwise for one in health to risk, he was seized with a prolonged chill, which was very severe and was followed by a pulmonary hemorrhage so profuse that for some time he was thought to be dead, but he lingered until morning, and died from pulmonary congestion and œdema.

Although this case terminated fatally, I regarded it as one of arrested phthisis. The beneficial effects of the climate of this lake region were so positive and well marked in this case, that I assumed the responsibility and induced other phthisical invalids to make a trial of it, contrary to the advice of other physicians, and regardless of the expostulations of friends.

Case IV.—Mr. M., aged twenty-seven, with a good family history, after an illness of several months, which was marked by cough, expectoration, and loss of flesh, spent the summer of 1870 at Saranac Lake, where he markedly improved, lost his cough, and gained in weight. After his return to New York in the fall, his cough returned, other physical symptoms developed, and he was quite ill throughout the winter. The next summer he returned to the Adirondacks much worse than he was the previous year. Again he improved, and he thought he was almost well. He went to California for the winter, did badly there, and on his return to New York in the spring, two physicians of large experience pronounced his case a hopeless one—one which would probably terminate fatally within six months. In the early summer of 1872 he reached the Adirondacks in a most pitiable condition. Both lungs were extensively diseased. At the apex of the left lung were the physical signs of extensive consolidation and softening. The upper third of the right lung was consolidated, and was the seat of large and small mucous râles. He had hectic fever, extreme dyspnœa, a rapid pulse, and other symptoms of advanced phthisis. He soon began to gain flesh and strength, his appetite improved, he coughed less, his expectoration was diminished in quantity, and by early fall he was able to keep out of doors the greater portion of the time. For five years he remained in the lake region. At times his condition was most promising, although little change took place in the physical signs. Last spring, tired of the seclusion, he returned to his home in New York.

Unquestionably this was a case of catarrhal phthisis, and the results obtained from his first summer's residence in the Adirondack region lead me to believe that if Mr. M. had remained in the region the winter succeeding this first summer, he would have reached complete recovery. Even after reaching an advanced stage of the disease, when there was no longer a possibility of recovery, a condition of stasis was reached when he permanently resided in the region.

Case V.—Mrs. L——, aged forty, good family history; early in the summer of 1871 went to the Adirondacks. She had been ill eight months with a cough and other phthisical symptoms. At the time of her arrival she was in a state of extreme exhaustion; for several weeks previous she had lived entirely upon beef-tea and champagne. She had a harassing cough, with profuse expectoration and hectic fever. Physical examination revealed a moderate amount of consolidation at the apex of the right lung, with crackling râles of large and small size; no evidence of softening. At once her desire for food returned, and she began to gain flesh and strength; gradually her cough and expectoration diminished, and late in the fall she returned to her home markedly improved. Since that time she has spent some time every summer or fall in this region, and for the last three years none of the rational or physical signs of phthisis have been present.

In this case the rapidity and completeness of the recovery was quite surprising, when we consider how unpromising was the condition of the patient at the time when she first reached the Adirondacks.

Case VI.—Mr. R——, aged thirty, with no heredi-

tary tendency to any disease, first consulted me in the spring of 1875. He had been ill six months with cough, expectoration, hectic fever, gradual emaciation, and other well-marked phthisical symptoms. Physical examination of chest revealed consolidation at the apex of the right lung, with sharp crackling râles, most abundant posteriorly, where distinct bronchial breathing could be heard below the spine of the scapula; left lung healthy. I advised him to take up his residence in the Adirondacks. He remained in camp in the lake region during the summer of 1875, with only a slight increase in weight, a slight improvement in strength, and no change in cough or physical signs. During the fall and winter he had several hemorrhages, with fever, and was confined to his bed at different times. Early the next spring he went into camp, and remained until September. When he came out of camp he weighed 181 pounds, had gained forty pounds; he had no cough, no expectoration, no fever. An examination of his chest revealed no abnormal sound, except pleuritic creaking and feeble respiratory murmur posteriorly over the former seat of the pulmonary consolidation. I regarded him a well man, and permitted him to return to his home. He remained well until the following spring, when he had an attack of acute cystitis. He was confined to his bed for six weeks; as soon as he was able to travel he returned to the Adirondacks, but the cystitis became chronic, was complicated by pyelitis and nephritis, and in early winter he died from acute uræmia.

At the time Mr. R. took up his residence in the Adirondacks his digestive and assimilating processes were in a feeble condition. Undoubtedly this accounted for the fact that for nearly a year there was little, if any, improvement in his lung disease. His five months' camp life during the second year of his residence in the Adirondacks not only cured his diseased lung, but wrought an entire change in his physical condition. So great was the change that one would scarcely recognize him. When he left the woods the following fall no evidence of lung disease could be detected, nor was any detected during the remainder of his life.

(To be continued.)

DEFORMITY OF THE NOSE,

Occasioned by the Kick of a Horse.—Relieved by a Rhinoplastic Operation.

By ALFRED C. POST, M.D., LL.D.,

Visiting Surgeon to the Presbyterian Hospital in the City of New York.

(Read before the Medical Society of the State of New York, February 5, 1879.)

Edgar Margison, æt. 18, admitted to the Presbyterian Hospital June 8, 1878. About ten years ago he received a kick from a horse on the lower part of the nose, fracturing the nasal bones, and displacing the nasal pyramid. The nasal fossæ have been contracted since the injury, so that with the slightest cold he cannot breathe through the nose.

The state of the deformity at the time of his admission is well represented by the accompanying photograph (Fig. 1). The bridge of the nose is depressed, and the apex is turned up so as to expose the anterior nares in a front view.

On the 11th of June I performed the following operation: The patient being etherized, I made a transverse incision through the nasal pyramid, about three-quarters of an inch above its lower margin. The ends of the incision, as they approached the cheeks, were turned downward along the sulci connecting the alæ nasi with the cheeks. The cartilaginous septum was also divided freely, so as to allow the lower part of the nose to be depressed a little below its normal level. After the divided vessels had been secured, the chasm between the two portions of the

Fig. 1.

nose was measured by a piece of oil-silk, which was reversed upon the forehead, and which served as a pattern for a flap of integument which was dissected from the frontal region, and which was a little larger than the space which it was designed to fill. The flap, which was left adherent by a neck over the nasal bones, was turned on its axis and brought down so as to fill the chasm between the upper and lower portions of the nose, and attached by numerous fine sutures to the margins of the chasm. To prevent the flattening of the new portion of the nose the two sides of the flap were perforated by needles armed with silver wires, and the two ends of the wires were then passed through beads and secured by the method devised by the late Dr. Buck, so as to maintain lateral pressure.

The surface on the forehead, from which the flap had been taken, was dressed with lint saturated with collodion.

13th.—The beads having become imbedded in the integument, the wires were loosened. The flap is in a good condition. There is some conjunctival inflammation. A solution of sulphate of zinc, gr. ij. to ℥ j., was ordered as a collyrium.

16th. The conjunctival inflammation is subsiding. Removed a portion of the sutures.

17th.—Removed the remaining sutures.

25th.—The union of the flap with the surrounding parts being perfectly consolidated I performed the following operation: The patient being etherized, I divided and unfolded the neck of the flap, and inserted it in a bed which had been made for its reception by the excision of granulations, and of the skin at the margin of the space from which the flap had been taken. The neck of the flap was inserted in a position the reverse of that which it had occupied before the original operation, and secured in that position by sutures. A long pin was passed through the integument at the right side of the wound from which the flap had been taken, passing through the flap at two points, and coming out through the integument

on the left side of the wound; this was secured in the usual way with cotton yarn. The course of the pin was near the upper extremity of the reversed neck of the flap.

30th.—The patient is doing well. The neck of the flap is uniting in its new position.

July 6th.—Since the first of the month, the wound on the forehead has been dressed with adhesive strips every other day, firm pressure being made to keep down the granulations. One of the bead sutures was removed to-day.

8th.—Removed the other bead suture. The wound on the forehead is cicatrizing.

12th.—The patient was allowed to go to his country home, to return next month for further treatment.

August 15th.—Patient was re-admitted to-day. The wound on the forehead is healed. There is a superfluity of skin and subcutaneous tissue at the upper end of the nasal pyramid.

17th.—I performed the following operation: I removed a longitudinal strip of integument, about a quarter of an inch wide, and an inch and a half long. I also dissected out a considerable portion of cellular tissue beneath the neck of the flap to reduce the thickness of the bridge of the nose. And as the apex of the nose was too much depressed on the right side, I removed a wedge-shaped piece of skin from the lower extremity of the transplanted flap on that side. The edges of both wounds were brought together by numerous fine silken sutures.

18th.—No rise of temperature. No inflammation.

20th.—The sutures were removed, and perfect union was found to have taken place. The patient was discharged at his own request.

October 3d.—The patient returned to the hospital, and I performed another operation, which was designed, 1st, to remove an undue fulness of the bridge of the nose, which still remained, in a minor degree, after the last operation; 2d, to elevate the apex of the nose, which was still a little too much depressed.

Fig. 2.

To accomplish these objects I excised an elongated elliptical strip of integument over the bridge of the nose, including the cicatrix which resulted from the last operation, together with an additional portion of subcutaneous tissue. I also made a horizontal incision across the nose, immediately above the line of incision made at the first operation for the separation of the apex from the parts above. Above this incision a triangular flap was excised on each side, the apices of the triangles looking toward the cheeks, and the bases toward the median line. The base of each triangle was about half an inch in length. The two lateral portions of the nose were approximated by a bead-suture, three-fifths of an inch on either side of the median line. The edges of the vertical and horizontal incisions were brought together by a number of fine silk sutures.

6th.—Some of the sutures were removed to-day.

9th.—The remaining sutures were removed The wounds have united by the first intention. The form of the nose is nearly perfect. The patient returned to his country home, still wearing the bead-suture.

November 1st.—The patient returned to the city, and I removed the bead-suture. The accompanying photograph was then taken, exhibiting the final result of the series of operations to which he had been subjected, Fig. 2.

REMARKS ON A CASE OF NEURITIS, WITH SECONDARY INFLAMMATION IN THE SPINAL CORD.

By L. PUTZEL, M.D.,

PHYSICIAN TO CLINIC FOR NERVOUS DISEASES, BELLEVUE OUT-DOOR DEPT., NEW YORK.

I have presented the history of the following case in order to lend additional clinical support to the doctrine of neuritis ascendens—a doctrine which has never rested on a very solid foundation, and which has, of late, been seriously attacked by experimental pathologists. The case is also interesting from a purely clinical standpoint, in order to illustrate the serious results which may follow apparently trifling lesions of the peripheral nerves.

The patient's name is Wm. W., æt. thirty-five years; family history unimportant; married, and has healthy children; he has never had syphilis or other venereal disease; his habits have always been good. Patient was in robust health until the war of the rebellion, when he enlisted as a soldier, and contracted dysentery during his term of service. Since his discharge from the army he has had a return of the dysenteric attacks at intervals of a few months. During the early period of my observation, the patient had from three to six watery passages per day.

He first came under my notice at the class for nervous diseases of the Bellevue Out-Door Dept., on Dec. 13, 1877. The patient was anæmic and somewhat emaciated; complained of slight cough and expectoration in the morning; physical exploration of chest not made at that time. A year ago patient received an injury to the right elbow, resulting in the formation of a boil over the olecranon process; this healed kindly in two or three weeks, leaving no apparent traces. About five weeks ago the patient again suffered from a boil, situated in the same locality as the previous one, and coming on without any apparent provocation. The swelling occupied the entire posterior part of the elbow. A month later (nearly two weeks ago), and before the boil had healed, the patient noticed a feeling of numbness appearing on the anterior and posterior surfaces of the forearm. This gradually spread downwards, involving the anterior and posterior aspects of the little finger and the ulnar border of the ring finger; these fingers became paretic, *pari passu* with the anæsthesia. The anæsthetic integument soon began to grow dusky red, became somewhat thickened, and small, whitish scales devel-

oped over its surface. Slight pain and tenderness now appeared in the fold of the elbow and along the course of the ulnar nerve in the forearm. Soon after the patient came under my care, the tenderness spread upward in the arm, along the course of the ulnar nerve into the axillary region, and was even present along the course of the brachial plexus in the neck. Patient was treated by hot douches, actual cautery along the affected nerves, and the descending constant current, as topical remedies; the internal medication consisted of iodide of potassium, fifteen grains three times a day, and thirty drops of the fluid extract of ergot three times a day. In the course of two weeks the pain and tenderness along the nerve trunks had almost entirely disappeared; the skin of the affected region was still insensible to the prick of a pin, but the patient appreciated a less intense faradic current than formerly. The interossei muscles are now becoming paretic; the flexors of the little and ring fingers are apparently somewhat stronger than formerly. Treatment was now restricted to the use of galvanism and the iodide of potassium. The patient remained *in statu quo* until February 10, 1878, when the following notes were taken: general appearance poor; heart sounds normal; signs of incipient phthisis at the apex of right lung; good deal of cough and expectoration; patient suffers from profuse night sweats. Upon examination of the arm, attention is attracted by the dusky redness of the skin in regions which accurately represent the distribution of the internal and external cutaneous nerves and the cutaneous branch of the musculo-spiral. The patient is unable to feel the prick of a pin even when it draws blood; does not feel constant current of thirty-two Stoehrer's cells; feels quite readily a secondary faradic current of moderate intensity. No tenderness on pressure along any of nerve trunks. Right hand forces dynamometer to 46, left hand to 180°. On inspection, it is found that the adductor pollicis can barely adduct the thumb, and the dorsal interossei are considerably atrophied. On asking the patient to move his fingers, it is found that the palmar interossei and the three inner lumbricales do not act as vigorously as in the left hand, and it is reasonable to suppose that they are atrophied. The motor nerve affected in the forearm is, therefore, the ulnar. In the arm, the ulnar nerve can be traced from the groove between the internal condyle and the olecranon process upward into the axilla as a thick, indurated cord, but is not, however, sensitive to pressure at the present time; the tenderness along the brachial plexus has also disappeared. A red patch is visible on the side of the neck and the tip of ear. This region, corresponding to the auricularis magnus nerve, feels numb, and on testing it with the æsthesiometer, it is evidently markedly anæsthetic. The two points of the æsthesiometer are only distinguished apart at thirty mm., and on the corresponding portion of the left side at fifteen mm. Immediately below the inferior angle of the right scapula is a spot nearly as large as a silver dollar, at which the skin presents the same appearances as in the neck and arm; this region is also anæsthetic, and two points cannot be distinguished apart over this spot. To-day the patient informs me, for the first time, of his dysenteric affection. Ordered subnitrate of bismuth, gr. xxx., t. i. d., which, in a few days, reduced the number of passages to two or three per diem, and rendered them healthy in appearance; atropia was ordered for the night sweats, with excellent results. The iodide of potassium was continued in the same doses as before, and the constant descending current was passed down the cervical spine, and along the course of the brachial plexus and of the nerves of the arm and forearm, every other day.

April 2, 1878, general health greatly improved; coughs very little; no night sweats; has one to two healthy passages from the bowels daily. The patient is now able to adduct the thumb to the base of the ring finger, and can abduct and adduct all the fingers except the ring finger. The eruption on the forearm has faded a great deal, especially toward its centre. Sensation has improved very little; pain is absent, except in the little finger and the ulnar side of the ring finger (hot, smarting pain). The anæsthesia of the reddened patch on the side of the neck is, perhaps, a little less marked than at the date of the last note, and the eruption is somewhat paler. The patient informs me to-day that he has noticed, since the beginning of the week, a numb, red spot on the middle of the thigh anteriorly, and about six inches below Poupart's ligament. This patch of eruption, which is as large as a silver dollar, and paler in the centre than at the periphery, is markedly anæsthetic. A similar spot, as large as a silver dime, is found over the left deltoid. The sexual appetite, which had been diminished, is now improving. The patient continued to improve very slowly until the winter of 1878, when he returned to work as a night watchman, and passed out of my observation.

This case has important bearings upon the question of neuritis ascendens and neuritis migrans. During the last twenty-five years there has been a strong tendency among neurologists to entirely discard the old doctrine of reflex paralyses; but there is no doubt that in a few cases the theory of reflex inhibitory action is alone sufficient to account for the paralysis produced. Thus, Landry reports a case of paralysis, associated with anteversion of the uterus, which disappeared immediately after the organ was replaced in its proper position. M. Rosenthal observed the disappearance of a suddenly developed paraparesis after the extraction of a needle which had been introduced into the vagina. Madge reports a case of paralysis developing during pregnancy which disappeared after the delivery of a dead fœtus of four months.

These observations correspond with the experiments of Lewisson, who produced paraplegia in animals by compression of the kidneys.

But this theory will evidently not suffice to explain all cases of this nature. In many instances post-mortem examination revealed the presence of inflammatory processes in the spinal cord or its meninges, in cases which had been regarded during life as examples of reflex paralysis from bladder or uterine disease, etc. The older cases of this character were deficient in microscopical examination of the medullary tissue, and must therefore be discarded. In order to explain the cases included in this category in which anatomical lesions were found in the spinal cord, resort was had to the theory of neuritis migrans, and this doctrine has been favorably entertained by the majority of living pathologists. In addition to the clinical aspects of the question, physiological experiments were also adduced to substantiate it. Thus, Tiesler, Klemm, Feinberg, and Niedick made numerous experiments upon animals by producing irritation of the sciatic nerve in some portion of its course, either by injecting a foreign matter into its substance, or by cauterizing it with nitrate of silver or caustic potassa. With the exception of Feinberg, these observers announced as the results of their investigations that the irritation of the nerve in the manner referred to produces neuritis at the irritated spot, and that, furthermore, evidences of inflammation ap-

pear in the course of the nerves, although the nerve-tissue may be perfectly healthy between two inflammatory foci. In addition, scattered foyers of myelitis were found disseminated throughout the cord. None of these experimenters, however, resorted to microscopical examination of the tissues, nor did they compare the appearances presented with those found in healthy animals. Feinberg found, as the result of his investigations, that neuritis was produced at that portion of the nerve which had been irritated, but that the more central parts of the nerve were intact. He, nevertheless, obtained evidences of myelitis in the cord. Feinberg is inclined to regard this myelitic process as produced by reflex irritation of vaso-motor nerves (contraction and secondary dilatation of the medullary vessels).

In December, 1877, Ottomar Rosenbach published an article in Kleb's Archiv f. exp. Path. u. Pharmak., in which he arrived at entirely opposite results from those of the observers previously mentioned. Dr. Rosenbach made a series of very careful experiments upon the sciatic and pneumogastric nerves in rabbits, and, although he could develop a perineuritis of the nerve at the irritated point, in not a single instance was he able to discover any evidences of neuritis migrans or of consecutive myelitis. All his experiments were accompanied by careful microscopical examinations—a precaution which had been omitted in the above-mentioned researches. Rosenbach also calls attention to the fact that no controlling observations were made upon healthy animals by either Klemm, Tiesler, Feinberg, or Niedick, and that many of the appearances which the latter regarded as pathological were, in fact, perfectly normal.

Whether or not these experiments of Rosenbach disprove the production of neuritis migrans in rabbits, we shall not discuss now. We are, however, justified in the assertion that its existence has not been experimentally established, and that other and more careful experiments are necessary to settle this vexed question.

We must therefore rely for a solution of the problem upon pathological and clinical data.

Kussmaul reported a case in which he observed atheromatous degeneration of the arteries in the pelvis, with partial fatty degeneration of both sciatic nerves.

Leyden reports two cases in his Kl. f. Rueckenmarksk., in both of which the paralyses were secondary to disease of the bladder, and in which the autopsy showed the existence of widespread myelitic softening. The myelitis started from that part of the cord in which the nerves supplying the bladder originate, and we are therefore naturally led to suppose that the inflammatory process passed upward from the bladder, and along the nerves, until it reached the cord. But Leyden himself remarks that there is no positive proof in support of this hypothesis. I have been unable to discover any other analogous cases of equal importance in a somewhat cursory survey of the medical literature which has appeared since the publication of Leyden's work.

The case which forms the subject of this paper appears to me to fill an hiatus in this direction. The primary affection was evidently a neuritis of the internal cutaneous, external cutaneous, and ulnar nerves, caused by an extension of inflammation from the boil situated on the elbow. The fact that the boil was primarily seated over the olecranon process, and from thence spread internally and externally, is a sufficient anatomical explanation of the fact that the three nerves in question were implicated to the exclusion of the other nerves situated in the fold of the elbow. At a later period pain and tenderness became evident along the course of the ulnar nerve in the arm, and the nerve could be traced as a thickened, indurated cord from the back of the inner condyle, along the inner side of the arm, into the axillary space. These phenomena undoubtedly indicated extension of the inflammation along the ulnar nerve. At a still later period tenderness became evident along the course of the brachial plexus in the neck, indicating the further extension of the neuritis along the nerve-trunk. The next nerve to become involved was the auricularis magnus, as was evidenced by the appearance of anæsthesia and of the trophic eruption, referred to previously, in its distribution to the lobe of the ear and to the side of the neck. Now, the ulnar nerve which had been previously implicated arises from the 8th cervical and 1st dorsal nerves, while the auricularis magnus arises from the 2d or 3d cervical nerve. If we acknowledge that the implication of the auricularis magnus was secondary to that of the ulnar nerve (and no other explanation is open to us), we are forced to conclude that the affection of the former nerve was caused by some inflammatory process in the spinal cord. This idea is still further strengthened by the subsequent appearance of similar spots of anæsthesia and eruption in other portions of the body (deltoid, scapula, thigh). What the nature of this medullary lesion was we are unable to state. It may have been a disseminated chronic myelitis, or the inflammation may have been limited to the meninges. The spinal symptoms were so slight, that it would be rash to venture a differential diagnosis between these two conditions.

In conclusion, it appears to us that this case demonstrates, from a clinical standpoint (and with almost as much positiveness as a successful physiological experiment), that ascending neuritis is capable of developing secondary inflammatory changes in the cord, by means of a simple extension of the neuritic process *per continuitatem*.

252 E. 48TH ST.

OSTEOTOMY FOR THE CORRECTION OF RACHITIC DEFORMITIES OF THE LEGS.

BY CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

IN the MEDICAL RECORD for September 7, 1878, I published three cases of osteotomy for the correction of rachitic deformities. The three following cases are in illustration of the same operation.

CASE IV.—Henry H., aged five years, was admitted into St. Mary's Hospital Oct. 1, 1878. He had enlarged epiphyses at the wrist, and excurvation of both tibiæ.

Oct. 5.—Patient was etherized and osteotomy was done on both limbs. The fibula was divided first, and then the tibia; counter-openings were made on the inner aspect of the legs, and carbolized horsehair passed. The limbs were put up in a straight position.

Oct. 6.—Dressings removed. There was no swelling or redness about the wound. Horsehair removed and new dressings applied.

Oct. 14.—Dressing removed; wounds all closed; limbs put up in plaster-of-Paris. The temperature since the operation has not been above 99°.

Nov. 7.—Plaster-of-Paris removed; limbs straight.

Feb. 8, 1879.—Patient discharged.

Case V.—John C., aged two and a half years, was admitted into St. Mary's Hospital Oct. 4, 1878. He has enlarged epiphysis and bow-legs to a marked degree.

Oct. 12.—Osteotomy was done on both legs in the same manner as in case No. IV. The bones were *very hard* and section was made slowly on this account. Counter-openings made and horsehair passed through. Limbs put up in a straight position. Sol. morph., sulph. mag., ℥ iv.

Oct. 13.—Dressings removed. Horsehair taken out; new dressings applied.

Oct. 21.—On removing the dressings to-day the wounds in the right leg were all closed, and the limb was put up in plaster-of-Paris. There was some suppuration from the tibial wound of the left leg. Dressings reapplied.

Oct. 24.—Left leg put up in plaster-of-Paris.

Nov. 7.—All splint removed; union firm; limbs straight. Patient was kept in the hospital until he could walk well, and was discharged cured Dec. 10th.

Case VI.—Thomas C., three years of age, was admitted into St. Mary's Hospital Oct. 24, 1878, suffering from bow-legs. He shows the results of rickets in various parts of his body. Figure 1 is from a photograph taken at the time of admission.

Fig. 1.

Nov. 11.—Patient etherized, and osteotomy done on both legs, the fibula being first divided and then the tibia. There was considerable hemorrhage from left leg; counter-openings made and horsehair passed through; limbs put up in a straight position.

There was some slight suppuration from both legs. They were put up in plaster-of-Paris on the 16th. On the 29th, as the limbs were not as straight as they should be on account of the plaster splint getting loose, the tibiæ were forcibly straightened and the plaster reapplied.

Dec. 28.—All splints removed and patient allowed to go about.

Jan. 3.—Patient was discharged. Figure 2 was taken just before he went home.

It is worthy of notice that in case No. IV. the bones were *very hard*, more so than in any of the cases that I have operated upon, although it was the youngest patient, and is an illustration of the fact that the bones in some cases may become sclerosed at

Fig. 2.

a comparatively early age. I do not think that mechanical appliance could have had any influence in straightening these limbs. I have lately seen one of the patients operated upon in May last. He walks well, without any awkward gait, and there has been no change in the legs.

In cases IV. and V., there was, during the latter part of the second and the beginning of the third week, an elevation of temperature which I cannot account for. I do not think that it had any thing to do with the operation, as the wounds all did well. The suppuration in case V. was too slight to have been an element in its causation.

Those cases where the curve is acute and near the ankle are more difficult to correct than where the curvature is long, and although the great toe may be on a line with the inner border of the patella, yet there is apt to remain a bend, due in some cases, I think, to the enlargement of the inner malleolus.

It should be added that all these operations were done, and the wounds treated antiseptically. Section in all these cases was made with a chisel.

"Aloepothy."—The following was received by a medical director of a life insurance company from an Eclectic in Missouri:

"Dear Sir, in reply to within I will State that I am the only physician in this town. I presume that I am not what you term 'Regular School' as I am a graduate of the Eclectic School and not an '*Aloepoth.*' There are only two other graduates in the county, and they are Eclectics. The 'Regulars' or Aloepoths have played out in this country!"

INCONTINENCE OF URINE OF EIGHT YEARS' DURATION RELIEVED BY CIRCUMCISION.

By C. E. NICHOLS, M.D.,

PHYSICIAN TO TROY HOSPITAL, N. Y.

The following case illustrates the prompt relief that can often be afforded in cases of reflex disorders by removing the peripheral source of irritation, even though the duration be sufficient to lead us to expect some continuation from *habit*.

M. L., male, æt. 15 years, had suffered from incontinence of urine for eight years. During that period he had not voided his urine once in a normal manner, but was subjected to a constant urinous dribbling from the penis day and night. At times he suffered severely from pain in the penis and hypogastric region, which was attributed to some vesical disorder. In the autumn of 1877 he entered Troy Hospital as a surgical patient, but left after remaining a few weeks, having been subjected to no treatment.

He was readmitted in October, 1878, and was repeatedly examined for stone in the bladder or other vesical disease, but with negative results.

My attention was called to him in February, 1879, during which month I was on service at the hospital, and I was requested to examine him with a view to the relief of his distressing condition. From the constant stillicidium of the urine his clothes were wet and offensive, no measures having been found practical to collect the urine in a suitable reservoir. He was still subject to frequent and very severe paroxysms of pain in the penis and hypogastric region, and, taken all in all, he was a disgusting and pitiable object. I found that he possessed an unusually long and somewhat thickened prepuce; that the orifice was small, and the glans penis, as felt through the foreskin, was exceedingly sensitive. The pain and nervous excitement resulting from the gentle manipulation of the glans penis during my examination led me to conclude that the probable cause of the trouble lay in the phymosis. To complete the diagnosis, however, I placed him under the influence of chloroform, and having satisfied myself that no condition existed in the pelvic organs to which the symptoms could be properly attributed, I availed myself of the condition of insensibility, and performed circumcision, removing a liberal portion of the prepuce.

The effect was very marked, and though the exposure of the inflamed and exceedingly sensitive glans was a source of suffering, yet immediately after the operation he was able to retain his urine for a period of two to three hours for the first time in eight years. The bladder rapidly improved in tolerance, and he progressed favorably in every way; but, owing to disorderly conduct and his indifference to cleanliness, which resulted from his eight years' experience, he was discharged from the hospital March 18th.

He called on me a day or two previous to the writing of this (April 9, 1879), and reported himself as *free* from any trouble or inconvenience in connection with the urinary organs, while at the same time he had acquired a proper sense of his duty in regard to the cleanly care of his person.

"The Doctor Woman," by Aiken Heart, M.D.—This is a clever little poem founded on the electrifying sensations experienced during direct auscultation by a lovely medical woman. The book is neatly printed and appropriately illustrated.

Reports of Hospitals.

BELLEVUE HOSPITAL.

REPORTS OF PRACTICE AND PECULIARITIES OF TREATMENT.

LEAD-COLIC—CROTON OIL AND OPIUM.

A male patient, a worker in a paint manufactory, suffered from pain about the umbilicus, the usual region for the pain of lead-colic, and had a well-marked blue line along the edge of the gums. The prescription was the following: Croton oil in half-drop doses, combined with opium sufficient to relieve the pain, and repeated every three or four hours until free evacuation of the bowels was produced.

PULMONARY EMPHYSEMA—AUTUMNAL ATTACKS OF SPASMODIC ASTHMA.

A female patient, forty-eight years of age, and the mother of seventeen children, suffered from autumnal attacks of spasmodic asthma. She stated that when the cold weather appeared she recovered without the aid of medicine. Associated with it were the physical signs of emphysema. The attacks of coughing were accompanied by a pearly pellet-like expectoration. One interesting feature in the case was the absence of hereditary history. For this class of cases, in addition to a general tonic plan of treatment, the following was recommended:

℞. Potass iodid..... ʒ ij.
Hoffman's anodyne..... ℥ ss.
Syr. prun. Virginiana..... ʒ iv.
M. et S. teaspoonful four times a day.

CHOREA.

The case was interesting because of the degree of the disease and the age of the patient.

A male patient, æt. forty-eight years, and a carpenter by trade, suffered from chills and fever for one year. At the end of that time, four years ago, he began to have choreic movements in the lower extremities, which caused him to walk like a drunken man. Not long after, the entire body was affected, and the movements had continued without interruption up to the time he was admitted to the hospital.

When admitted to the hospital his jerkings were so severe that it was necessary to confine him to the bed by means of straps.

His intellect was clear, but his power of expression was very much disturbed.

He was receiving gr. lx. of bromide of potassium, night and morning, and while taking the remedy the severity of the movements was considerably reduced.

ACUTE ARTICULAR RHEUMATISM — EXCEPTION WITH REFERENCE TO THE TIME OF THE OCCURRENCE OF THE PRIMARY ATTACK.

A male patient, æt. fifty years, was suffering from his second attack of acute articular rheumatism. The first attack occurred when he was forty-seven years of age, and in that particular the case was chiefly interesting, primary attacks of the disease being very unfrequent after the age of forty has been reached. His symptoms yielded quite promptly to the use of tablespoonful doses of a saturated solution of bicarbonate of soda, with twenty grains of salicylic acid, every three hours.

SPINAL ABSCESS—TREATMENT BY INJECTIONS OF CARBOLIC ACID.

A male patient, æt. twenty six, had upon the upper portion of the thigh a large abscess, which was supposed to have its origin in caries of some of the lumbar vertebræ.

The points of interest in the case were that it was a spinal abscess, which originated in the lumbar region, and terminated in two long sinuous tracts, one extending down upon the right side, passing under Poupart's ligament, and then spreading out and forming a large abscess, which had opened in the femoral region; the other running down upon the left side, and opening over the anterior superior spinous process of the ilium.

The plan of treatment proposed was—*first*, to establish an opening near the point at which the pus emerged from beneath Poupart's ligament; *second*, to empty the abscess upon the thigh below, wash its cavity thoroughly with carbolized water, and bring its walls in contact by means of a bandage; *third*, to introduce a soft catheter, carrying it up until the bodies of the vertebræ were reached, cleansing the entire surface of the sinuous tract by injections of carbolized water, and bringing the disinfectant solution in contact with the carious bone. The surgeon did not expect to prevent air from entering the wound and the sinus, but the operation was done under Lister's method, for the purpose of disinfecting the air which might enter.

PNEUMONIA AT THE APEX — THREE CASES — SPONTANEOUS RECOVERY IN TWO CASES.

Three cases of pneumonia which were interesting for study were seen.

CASE I.—*Pneumonic Fever, pursuing a short course, and ending by crisis without active interference in the way of treatment.*—Its history was as follows: A male patient, æt. 17, a farm laborer, was admitted to the hospital, January 10, 1879. Family history negative, and habits good. During the last two months he had had cough with moderate amount of expectoration. On the evening of January 9th, he began to feel unwell, and had a chill. During the week previous to the chill the patient was in his usual health. On the following morning he had moderate pain in the right side, increased by respiratory movement. Headache and vomiting were absent, and there was no marked debility. There were no positive signs of consolidation at the time of admission, but the respiratory movement was nearly suppressed over the lower lobes, as the result of the pain. The face was flushed and the tongue coated with a heavy white fur. The urine was acid, had a specific gravity of 1024, and did not contain albumen. The pulse was 126, the respiration 36, and the temperature in the morning, 103¾° F.; in the evening, 103¾° F.

Jan. 11.—Morning: pulse 120; respiration 30; temperature 103¼° F. Noon: pulse 120; respiration 36; temperature 104⅜° F. 5 P.M.: pulse 96; respiration 40; and at 6.30 P.M. the temperature was 104½° F. At that time indistinct bronchial respiration was detected at the apex of the right lung. The patient received four pints of milk and two eggs in twenty-four hours. No medicinal treatment.

Jan. 12.—Morning temperature was 104¼° F. At 1 P.M. the temperature was 105° F., and at 6 P.M. it was the same. The physical signs remained unchanged. There was no characteristic pneumonic sputa.

Jan. 13.—At 5 A.M. the pulse was 120; the respiration 32; and the temperature 103½° F. At 1 P.M. the temperature was 104° F. At 5 P.M. the pulse was 100; the respiration 40; and at 6 P.M. the temperature was 103° F. The physical signs remained the same.

Jan. 14.—Morning: the pulse was 100; the respiration 50; and the temperature 103¼° F. At 1 P.M. the temperature was 104° F.; at 5 P.M. the pulse was 100; the respiration 54; and at 6 P.M. the temperature was 104° F. Bronchial breathing at the apex of the right lung. Sputa copious, transparent, and viscid. No medicinal treatment.

Jan. 15.—Seventh day from the chill. Morning: pulse 62; respiration 24; and temperature 99° F. At 6 P.M. the pulse was 64; the respiration 28; and the temperature 99¼° F. The physical signs remained unchanged, notwithstanding the marked change in the general condition of the patient, and the case was regarded as a typical illustration of the view that this disease is not a local disease, but a fever with pneumonic manifestations.

Jan. 16.—Morning: the pulse was 66; the respiration 34; and the temperature 98¼° F. At 6 P.M. the pulse was 52; the respiration 36; and the temperature 98⅛° F. The case then illustrated the fact that sometimes the pulse falls below the average at the time of convalescence from pneumonia. On physical examination there was found a slight crepitant râle (redux) over the affected portion of the lung; the entire lobe was not solidified.

CASE II.—*Pneumonia at the apex of right lung.—Treatment.—Recovery.*

A female patient, æt. 40, was admitted to the hospital on January 6, 1879. Family history unimportant. Had always enjoyed good health, and had not had any pulmonary affection until the present.

On January 2d, at about 3 P.M., she was suddenly seized with a chill, and at the same time vomited. A few hours later she had pain in the right side, most intense near the nipple, and extending towards the shoulder.

On January 3d, she had epistaxis, which appeared to be caused by violent coughing. The sputa was small in quantity, viscid and uncolored. Pain in various parts of the body.

On the day of admission she was suffering from headache, anorexia, troublesome cough, and some diarrhœa. Pulse 120; respiration 40; temperature 104¼° F., and face flushed. Characteristic rusty-colored expectoration was present, and there were signs of solidification over the upper lobe of the right lung. The urine was acid, had a specific gravity of 1018, a slight trace of albumen, and an abundance of large granular casts.

Jan. 8.—Morning: pulse 124; respiration 38; and temperature 104° F. At 1 P.M. the pulse was 114; the respiration 35; and the temperature 104° F.

She then received small doses of morphia (U. S. solution) to relieve the pain in the side, and also small doses of sweet spirits of nitre.

Jan. 9.—Bronchial breathing and broncophony over the upper lobe of the right lung.

In the morning the pulse was 110; the respiration 34; and the temperature 103¾° F. In the evening the pulse was 110; the respiration 32; and the temperature 102° F.

Jan. 10.—Morning: pulse 102; respiration 29; and temperature 100¾° F.

Evening: pulse 104; respiration 32; and temperature 100½° F.

The patient was receiving milk and whiskey in half-ounce doses, every three hours. Twenty minims of the tincture of digitalis were added to the morphine, and the spirits of nitre was continued.

Jan. 11.—Morning: pulse 56; respiration 30; and temperature 99½° F.

Evening: pulse 57; respiration 30; and temperature 100° F.

Jan. 12.—Morning: pulse 55; respiration 29; and temperature 99° F.

Evening: temperature 99° F.

From that date there was no history of fever, and resolution was indicated by the presence of crepitant and subcrepitant râles (redux) and a change of the bronchial into the broncho-vesicular respiration.

The disease was of short duration. The patient was taken with a chill on Jan. 2d, and on the eighth day of the disease (Jan. 10th) there was a marked decline in all the symptoms.

It was left for the observers to decide, each for himself, whether the disease was brought to its happy termination by the remedies administered, or whether recovery was due to the effort of Nature.

Case III.—*Pneumonia at the apex—Treatment, active and antipyretic—Case progressing favorably.*

The general condition of this patient was not good, and was such as to render him less able to tolerate the affection.

A male patient, colored, and aged 48, was admitted to the hospital on the 6th of January, 1879. Family history negative. He had led a wandering life, but had had no serious illness, except intermittent fever several years ago.

On Jan. 3d the patient arose feeling as well as usual, but in the middle of the forenoon was seized with a severe chill. He was unable to continue his work, returned home, went to bed, and soon began to suffer from pain in the head, back, and limbs. In the evening he had a sharp pain in the right side near the nipple. He had some cough; expectorated a thin white viscid sputa. The cough was suppressed as much as possible, on account of the pain produced by it. He suffered from dyspnœa, anorexia, and slight diarrhœa, and when admitted had headache and a temperature at 12.30 P.M. of 104½° F. At 4.15 P.M. his temperature was 105¾° F. and he received xxv. grs. of the sulphate of quinine.

At 7 15 the temperature was 103° F. At that hour of the day, fall in temperature would not be expected in the natural progress of the disease, and it was altogether probable, therefore, that the decline was due to the large dose of quinine. There were bronchial breathing and broncophony over the upper lobe of the right lung, most marked behind. There were no râles present. The urine was acid, had a specific gravity of 1020, did not contain albumen, but contained oxalate of lime and some pus and blood. There were also present epithelial and granular casts. The patient had urethral stricture.

On Jan. 8th the pulse in the morning was 120; the respiration 40; and the temperature 104¾° F.

At 12.30 P.M. the temperature was 105¼° F., and xl. grs. of the sulphate of quinine with xix ℥ of aromatic sulphuric acid and xx. ℥ of tincture of opium were given by enema.

At 7.10 P.M. the temperature was 104° F. A few crepitant râles were heard over the upper lobe of the right lung in front.

Sweet spirits of nitre was also administered in this case.

Jan. 9.—Morning: pulse 96; respiration 30; and temperature 102° F.

At 12.30 P.M. the temperature was 105¾° F.; and at 7.10, 105¼° F. At 8 P.M. he received xx. grs. of quinine.

Jan. 10.—Morning: pulse 84; respiration 30; and temperature 100¼° F.

At 12.30 P.M. the temperature was 101½° F., and at 7.20 P.M. 105⅝° F.

Subcrepitant râles could be heard over a circumscribed space over the upper lobe of the right lung behind. The patient received milk and eggs, and whiskey in half-ounce doses every three hours.

Jan. 11.—Morning: pulse 90; respiration 28; and temperature 102¾° F.

At 1 P.M. the temperature was 101¼° F., and at 7 P.M. 104½° F.

The patient had a moderate diarrhœa which was checked by chalk and opium powders.

Jan. 12.—The morning temperature was 101¼° F., and at 7 P.M. it was 103½° F.

The case was progressing very satisfactorily, although the lung had not yet completely resolved. To meet such symptoms as might arise and to nourish the patient well were the indications.

Progress of Medical Science.

Saturnine Hemiplegia.—At a recent meeting of the *Société Médicale des Hôpitaux*, in Paris, M. Debore reported a remarkable case of this rare affection, of which only five or six cases have hitherto been reported. The patient was a worker in lead, and when brought to the hospital was suffering from coma and delirium. He gradually regained consciousness, but remained hemiplegic on the left side. Four months later the hemiplegia still persisted, but the patient could walk, dragging the left leg slightly. The mouth was drawn to the other side: no ptosis; anæsthesia of the left side of the tongue; impairment of hearing on the left side, with obstruction of the Eustachian tube; central scotoma on the left side, but vision perfect on the right side. In the hope of curing the hemi-anæsthesia, M. Debore applied the electro-magnet of Faraday, and in half an hour he demonstrated an incomplete return of sensibility, with improvement of the sight and hearing, but not of the senses of taste and smell. M. Debore thinks that in this case he has excluded by careful examination the possibility of simulation. Experiments with a false magnet remained negative, while those with a true electro-magnet gave the above results.—*Gazette des Hôpitaux*, Feb. 5th.

Treatment of Osteomyelitis.—In one of the forms of epiphyseal ostitis, the inflammation of the spongy tissue of the epiphyses gives rise to very marked softening of the substance of the bone. The course of the disease may be arrested in the following manner: After careful palpation has revealed the point at which the softening of the bone is most marked, a scalpel is freely introduced in this situation; a simple puncture of the skin is made, but the knife is entered boldly and deeply. In osteitis, the skin and the compact tissue of bone are merely punctured, but the areolar osseous tissue is freely incised, since this is in danger of being strangulated by the compact tissue which surrounds it. After this operation the improvement and cessation of the pain are almost instantaneous, as after incision of a felon. A dressing of cotton batting is then applied. The same operation may be resorted in place of trepanation of the mastoid process, which is indicated so frequently in purulent discharges from the ear. The mastoid process is carefully examined in order to detect a point which is less resistant than the surrounding parts, and the scalpel is then plunged in to a depth of one or two centimetres. Sometimes a discharge of pus,

but often merely blood escapes. In either event, however, the inflammation subsides, and the discharge of pus from the ear ceases. The pain is instantly relieved. — Dr. Guerin, *Journ. de Méd et de Chirurg.*, March, 1879.

Retention of Urine cured by Metallo-therapeutics.—The patient, an hysterical woman, 40 years of age, had been treated for several years for permanent spasm of the neck of the bladder, metritis and marked hyperesthesia of the left ovary. During last year she had retention of urine lasting five months and necessitating the daily use of the catheter. This was finally relieved by the use of antispasmodics and suppositories of belladonna. Last November the retention reappeared in a more distressing form than previously. The introduction of the catheter gave rise to a spasm of the urethral muscles and to intense smarting pain; it often produced an hysterical convulsion, attended with loss of consciousness. The patient would not drink for two or three days in order to delay the introduction of the catheter. Metallotherapeutics were then resorted to. It was found that the application of gold to the skin increased the convulsive movements of the limb to which the patient was subject, while other metals, such as copper, steel, and silver, caused their immediate disappearance. Burg's armatures, composed of the latter metals, were then applied to the vesical region and around the upper part of the thighs; an hour later, the patient urinated freely and without pain. After this, the catheter was not again introduced; if the discharge of urine was delayed, the armatures were applied, and micturition was then performed naturally, sometimes, however, with some pain.—Dr. Dupuy, *Journ. de Méd. et de Chirurg.*, March, 1879.

A Case of Béribéri.— Béribéri is an affection which occurs especially in warm climates, is either sporadic or endemic, and usually attacks the colored races. It begins with general weakness and a feeling of great oppression; this is frequently combined with anasarca, multiple serous effusions, and motor and sensory disturbances, following an ascending course. There are two principal varieties, the dropsical and the paralytic forms. The dropsical form predominates in South America, but the paralytic variety may also develop there as shown by the history of the following patient: He is now 31 years of age, was born of French parents in South America, and lived in France from his seventh to eighteenth years. He then returned to Brazil. Three years ago he suffered from an affection of the liver and spleen. Eighteen months ago the patient became affected with weakness of one leg, which soon extended to the other; he suffered from slight but frequent pains in the legs. Two months later, the upper limbs became involved in the same manner, and the patient was confined to his bed; the left side was more affected than the right. These symptoms were soon followed by anorexia, difficult digestion, constipation, vertigo on turning around; no cephalalgia. The attending physician made a diagnosis of béribéri and advised his return to France. In January, 1877, I found the patient in the following condition: all the limbs were almost equally atrophied; the feet are in forced extension; the paralysis of the legs is almost complete on both sides. The thighs are somewhat atrophied but retain considerable muscular power. The muscles of the legs do not respond to electricity. There is marked paralysis and atrophy of the forearms, especially on the left side; slight diminution of tactile sensibility is observed. The muscles of the arms, shoulders, and neck are not involved; special senses and intellectual faculties normal. January 10th, a succession of large vesicles, resembling herpes, appeared on the left side; February 2d, a second eruption appeared in the same position and lasting a week; February 16th, a third crop; February 19th, spontaneous pain over the ulnar nerve, in the course of which the eruption had appeared. The patient's condition remained *in statu quo* until the following June, when he began to mend slowly but progressively, and in July of the following year he was able to walk very readily, and had gained considerable flesh.

In the majority of cases the disease begins with numbness, stiffness, pains and deformities in the lower limbs. In the mixed forms, the limbs atrophy, œdema develops, the skin becomes dry and wrinkled; intelligence is preserved.

Various theories have been advanced to explain this affection, but none have proven satisfactory. In my opinion it is due to a lesion of the spinal cord, the nature of which must be determined by future investigations.—M. Laboulbène, *Gaz. des Hôpit.*, No. 26 27, 1879.

Ovariotomy—A Series of Fifty Cases. An addition to the statistics of ovariotomy, consisting of a series of fifty cases, has been given by Schröder (*Berl. Med. Woch.*). With one exception, all the operations were performed in the lying-in hospital, Lister's method being strictly adhered to. Of these cases seven, or fourteen per cent., ended fatally; three of the patients dying with symptoms of septicæmia. If no septic germs enter the abdominal cavity, the most dangerous case, Dr. Schröder thinks, may be expected to terminate favorably; but this is not always possible. In two cases of pregnancy the operation was successful, and the procedure is strongly advocated during the early months of pregnancy, because by this means the woman will be spared the dangers of a complication of gravidity and ovarian tumor, and the child is not exposed to greater risks. In one instance a cyst, the size of a man's head, was complicated by a solid tumor of the sacrum, and thrombosis of the left crural artery. The patient survived the operation, and soon recovered. The base of the tumor was once stitched to the abdominal wound to prevent retroflexion of the uterus. Small tumors present more difficulties than larger ones. If the tumors are uncommonly large, the abdominal walls are over-stretched, and the peritoneal cavity is almost empty. This may be the cause of infection through the air entering, and carrying with it zymotic germs. To prevent this it is advisable to draw the intestines into the pelvic cavity, and cover them with the omentum. Where the shortness of the mesentery prevents this, the relaxed abdominal walls should be pressed into the true pelvis. In two cases portions of the abdominal walls were removed, but without producing any particularly favorable result.—*The London Medical Record*, March 15th.

A Strange Fact.—Dr. A. E. Goodwin, of Rockford, Ill., writes: "In your journal of the 29th March, page 312, 'A Strange Fact' reminds the writer of a similar one in practice some twenty-six years since in the State of New York—a child born with but one hand. The one wanting corresponded to that of a bachelor boarder in the same tenement-house, who had a stump from amputation at the wrist. Strange to say, such is emotion affecting the organic functions or changes of nutrition of fœtus through changes in the mother's blood."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, April 26, 1879.

THE NEW NATIONAL HEALTH BILL.

THE discussion of the Senate bill for the prevention of the introduction of contagious diseases in the United States has been to some purpose, as is shown in the bill recently presented to the House by Mr. Casey Young. Preserving the main features of the original one by Mr. Harris that of Mr. Young adds some new provisions which will tend to make practicable many of the measures that were previously proposed. For instance, as a proper starting-point, the sum of six hundred and fifty thousand dollars is appropriated for sanitary purposes, to be disbursed under the direction of the board. On a previous occasion, when commenting upon the bill of Mr. Harris, we maintained that it would be virtually inoperative for the want of a suitable sum of money to carry out the provisions of the act. That objection is now met by the appropriation in question, and gives a practical bearing to all the measures calculated to prevent the appearance of contagious disease or arrest its progress when once started.

The scheme of legislation which is proposed in the bill now before us, like the one of Mr. Harris already noticed, contemplates in general terms the national sanitary supervision of all vessels engaged in the transportation of goods or persons from any foreign port, where any contagious or infectious disease exists, to any port of the United States. All such vessels, before their departure from any infected port, are required to have a certificate of health from the consul or health officer appointed by this government, and cannot, under penalty of a heavy fine, enter any port of the United States either to land passengers or cargo.

It is also provided that the National Board of Health collect and diffuse such information on matters of health, and shall advise local authorities of the course to be pursued in times of danger from epidemics, and in cases of necessity shall confer on said local authorities extraordinary powers to remove incompetent health officers, establish quarantine in sea-ports, and, inland, to erect suitable buildings along river and railroad routes for the disinfection of persons and baggage, and, with the aid of the different State authorities, to use every means to prevent the dissemination of contagion.

These powers are sufficiently ample, if they can be properly carried out, to meet the requirements of the greatest emergencies. The only trouble will probably be in reconciling State's rights with those of the general government. The States claim the constitutional right of protecting their citizens, as to health and property, personal liberty, and the like, and are jealous of any interference on the part of the general government with these functions. It would appear, however, that every precaution is taken to guard against any misuse of power on the part of the new board. In fact, without the co-operation of the State authorities, it would be virtually powerless for any real good in times of emergency. But there is a power behind that of the written law which will be felt when the real necessities of the hour become apparent, and that is, a general public opinion in favor of measures for protection. It is more than likely that everything will be done to aid the board in their efforts in preventing the spread of disease. The people at large will be too much interested in their own safety to listen to anything which does not contemplate the enforcement of even stringent regulations, and no State or municipal government will care to object to the published recommendations of a health board that is supposed to speak with authority on sanitary subjects and is believed to possess arbitrary power for the enforcement of their recommendations. Especially will this be the case when this board has the necessary amount of means at its disposal to aid local authorities in making sanitary reforms, in establishing quarantines, and in the construction of buildings for disinfecting purposes.

The desire for safety will be paramount to all other considerations, and it is more likely that the board will be upheld even in the exercise of what might at other times appear to be unwarranted authority, than that there should be any disposition to trammel its movements.

In the provisions of the new bill are enumerated the inspection of cattle arriving at or exported from the different shipping ports of the United States, also the investigations into the contagious and infectious diseases of said cattle, and the general dissemination of information regarding the same. These are commendable features in the bill, and may be made perfectly feasible by employing suitable experts to investigate and report. At this time there is a special need for some trustworthy statements not only in reference to the actual existence of certain cattle diseases

throughout the country, but of their relative prevalence in different quarters.

In conclusion we would say that the bill of Mr. Young is thus far the most comprehensive in its details, the most reasonable in its provisions, and the most likely to meet with the endorsement of the profession and the public of any which has heretofore been presented to the Legislature. It is difficult to see how it could be improved in any way to meet the necessities which are likely to arise the coming summer. As an experiment it deserves an impartial trial. It is unnecessary, perhaps, to say that we hope the bill will pass, and give an opportunity of proving, by actual application, principles of sanitary legislation which, from a theoretical standpoint, appear to be so nearly perfect.

HOMŒOPATHY AND MEDICAL INSTRUCTION.

A MEMORIAL has recently been presented to the Legislature of Michigan by the homœopathic physicians of that State praying for the removal of the Homœopathic College from the State University. The petitioners say that the college is an expensive failure, its lack of success being due to the fact that the "allopathic" department is old and well-established, and monopolizes all the best sentiment of the place. In the hospital connected with the department, there have hardly been half a dozen patients. In fact, the institution has not fulfilled the expectations of its friends and can only be continued at an unnecessary cost to the State. It is asked that the college be located elsewhere and the appropriation for it be continued.

In connection with this movement some facts in regard to the status of homœopathic colleges abroad have been developed. The University of Pesth, in Hungary, is said to be the only place in Europe where this system of medicine has a prominent place as a government institution established by law. Here there are two professorships supplementary to the regular course, attendance upon these special courses being elective. The greatest number of students before these professors appears to have been six, and often they have actually had no audience at all. Some time after the establishment of these courses an attempt was made to introduce homœopathic professorships into the University of Vienna. No opposition was made by the established professors, but the homœopathic physicians of Vienna petitioned against the movement, asserting that homœopathy could stand upon its own ground and did not need State aid. A confidence so serene and disinterested as this was not to be disregarded, and the new professorships were not established.

The conclusion to be drawn from these facts is, that whenever homœopathy is allowed to come out and display itself to intelligent students by the side of regular medicine, it very soon attenuates and collapses. On the other hand, it is denied the opportunities that have been furnished it for the cry of intolerance and persecution which have assisted so materially heretofore. It was, for example, through such opportunities and its co-educational advertisement that the Boston Homœopathic School originated and attained a certain amount of prosperity.

It may be well to remember these facts in connection with the proposed amendment to the national code of ethics, to be discussed by the American Medical Association at its coming meeting. This amendment practically forbids medical men to teach persons who they know will subsequently practise some exclusive system of medicine. We do not believe that this is either just or politic. Its first practical result will be to demoralize and perhaps destroy a well-established and reputable school such as that at Ann Arbor, thus accomplishing exactly what the homœopaths desired when they first got themselves legislated into it. A way would be opened by it also for injuring other institutions in the same manner by legislative interference.

Further, a medical instructor has the right to teach whatever pupils he chooses, provided he teaches what he believes to be true. And a professor's honor and dignity depend not upon his audience but upon what he himself says. He cannot be made a better man by excluding prospective homœopaths from his lecture-room, and neither will such proceeding lessen the number or diminish the prosperity of the followers of dogmatic medicine; but rather the contrary. In fact, the measure would only be embarrassing to teachers, and fruitless of good results in any way.

We need place the question, only on the right of the professor to teach the truth to sinners, and on the ground that it is inexpedient in every sense to enforce an exhibition of what, to a large part of the regular profession and all enlightened outsiders, will appear a gratuitous intolerance. If we believe that no narrow and exclusive creed can live, we need not act as though we feared it might do so, should the slightest apparent help be extended to it.

A SANITARY PROTECTIVE ASSOCIATION.

AN Association under the above name has been formed at Newport, R. I., for the purpose of securing, at a moderate cost, sanitary advice and protection to its members. Such associations have been in successful existence in Edinburgh, but this is the first of its kind n this country. The organization includes an inspecting engineer and a chemist. The members pay an annual due of six dollars, and for this are entitled to have their house inspected by the engineer and an analysis of the drinking-water made by the chemist. By a small additional fee they can obtain similar service for any other houses which they may own. They can also have a report, without fee, upon the sanitary condition of any church, school-house or place of public resort within the city of Newport,

and can have occasional supplementary inspection and advice concerning the dwelling or property in respect of which they are subscribers.

The Association is intended to supplement and not conflict with any public health board. Its object is an excellent one, for it cheapens the cost of thorough sanitary inspection, and will therefore tend to diffuse a wider knowledge and excite greater attention concerning matters of public hygiene.

A NEW BOARD OF HEALTH.

The State of North Carolina has recently created a Board of Health, with powers which will render it a very useful organization. Six of its members are elected from and by the State Medical Society, and three are appointed by the Governor. Its duties are much like those ordinarily bestowed upon such boards, but it is not given any power in connection with licensing or regulating medical practice, as is done in some Western States. An especially good feature is its coöperation with county boards, which are at the same time created. Through these two forms of organization all matters relating to inland quarantine, vital statistics, and general sanitation, are regulated. The provisions of the bill are very creditable to the wisdom of the medical and legislative bodies of the State.

THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of the American Medical Association will be held in Atlanta, Ga., commencing May 6th. The programme which has been arranged is attractive; and if the attendance is good, as we hope it will be, the meeting cannot fail to be an interesting and profitable one.

Although the distance from the Eastern and Middle States will probably prevent the attendance of a large majority from those districts, the proportion will be made up by delegates from the South and West. The president's address will doubtless be an eloquent and suggestive one, and amply repay the thoughtful attention which we confidently bespeak for it. From all accounts, the work in the sections will be of rare scientific value, while the reports from the different committees will be of unusual interest. The strictly business portion of the meeting will be comparatively unimportant, unless the Association insists upon passing the proposed amendment to the Code, forbidding the teaching, in regular medical schools, of prospective homœopathic practitioners. We hope, however, that this will not be the case, as such a course, if taken by the Association, will certainly stultify it, not only in the eyes of the profession, but of the public at large.

INEFFICIENCY IN EXPERT TESTIMONY.

In a report upon certain medico-legal cases by Dr. Thad. M. Stevens, the bad state of affairs that still exists in connection with expert testimony is very clearly shown. Experts who are ignorant, experts who lack common sense, and experts who are dishonest, are referred to in the illustrative cases cited. We have before commented on this and shown, as is done by Dr. Stevens, that, while there are many points in toxicology not yet satisfactorily worked out, yet the present trouble does not lie in the incompleteness of the science, but in the present method of calling experts, some being retained by the prosecution and some by the defence.

The first case given, in particular, shows what an ingenious expert can do when under the stimulus of a fee from the defence. A woman received a potion from her husband and a few hours afterward was taken with convulsions and died. The defendant's expert admitted at first that the symptoms covered nearly all those of strychnine-poisoning. In addition he had received privately the glass from which the potion was given, and found strychnine still in it. He did not mention this fact, however, but testified that though the symptoms were much like those from strychnia-poisoning, they might have been due to morphine—a drug the woman had been in the habit of using, and one whose effects sometimes resembled those of strychnine. He asserted that no strychnine was found in the stomach, but omitted to mention that morphine might obscure the test. In fact, the exhibition, from a scientific point of view, was truly a grotesque one; but the defendant was acquitted. Other cases of like character are given, but such things are too well known to need further illustration here.

The only remedy, and it is a simple one, is to have a commission of experts appointed by the court; they can then work without bias, and can produce evidence that is not contradictory and that does not make themselves ridiculous and their science inefficient. The existence of much false and stupid testimony has now become a glaring fact, of which we have had some very interesting instances in New York, and the present pamphlet should help to awaken some practical efforts for reform in the matter.

Twelfth Annual Report of the St. Francis' Hospital for the year ending December 31, 1878.—This report is printed, as usual, in German and English, and it shows a very active service during the past year. 1,651 cases were treated, of whom 208 died, making a mortality of about 12 per cent. This large mortality is due to the fact that the hospital admits many moribund and incurable cases, more than 100 dying of phthisis alone; 32 fractures and 5 dislocations were treated, the most frequent of the former being those of the clavicle (7) and of the radius (7). Ovariotomy and kolpo-cystotomy were each performed once. There were seven cases of hernia, of which five were operated on. Two cases of median lithotomy and five of external urethrotomy are also recorded.

Reports of Societies.

PHILADELPHIA COLLEGE OF PHYSICIANS.

REGULAR MONTHLY MEETING, FEB. 5, 1879.

(Reported for THE MEDICAL RECORD.)

THE EARTH-TREATMENT OF TUMORS.

DR. ADDINELL HEWSON presented a paper on a case of fibroma of the uterus undergoing cystic degeneration, which he had treated by the external application of a paste of clay and water.

The patient had been suffering for six years from a steadily growing tumor in her abdomen, which was first detected after a suppression of menses consequent upon her bathing in the Hudson river on the second day of the flow. This suppression had continued ever since, and had been attended by severe and constant pains in the loins and inguinal region. Dr. Hewson saw the patient for the first time on October 20, 1878, at a relation's house in Philadelphia. She was propped up in bed, suffering from great dyspnœa and exhaustion, and with the tumor so large and projecting that she could not see her knees. The integument covering the tumor was in a state of marked hypertrophy, and was constantly weeping a watery fluid. The vulva was excessively œdematous. The patient's bowels were regular, but micturition was abnormally frequent. Before the tumor appeared she weighed 107 pounds, and when Dr. Hewson saw her, 165 pounds, showing that she had gained 58 pounds in weight in spite of the general emaciation apparent.

All that was done at the first visit was to apply a paste of clay and water, one and a half pounds of the former to three-quarters of a pound of the latter, so as to completely cover the tumor, retaining the dressing *in situ* with a thin layer of cotton batting. This application was followed by marked relief. The urine was examined on the day following, and found to be free from albumen, but heavily loaded with phosphates.

The dressing was then renewed, the same quantity of clay and water being used and the same covering of cotton wadding. Upon this occasion a four-inch roller was run round the waist and a loop of the same breadth fastened to this waist-band well back in the lumbar region on both sides, after having carried it under the tumor close to the symphysis pubis, thus affording the needed support.

On the next day the patient was so much improved that a physical examination was made, with the following results: great tympany under the ribs on the left side; then, below, to a line corresponding with the umbilicus, whilst the patient was sitting up, distinct succussion as of a fluid confined to that portion of the peritoneal cavity; there was then the dulness and feeble succussion, or jelly-like movement, belonging to fibro-cystic tumors, extending down from the line of the peritoneal fluid, and confined to the central portion of the belly, as though there might be a fibro-cystic growth from the body or fundus of the uterus. This growth was evidently extensively bound down by peritoneal adhesions below.

The patient continued to improve steadily under the treatment employed, so that measurements made with a strong tape-line on December 14th, showed that between that date and October 21st, the circumference of the body at the xiphoid cartilage had decreased from 36 to 31 inches, and at the umbilicus from 48¾ to 41½ inches; that the distance from the umbilicus to the xiphoid cartilage had decreased from 12 to 9 inches; the distance from the umbilicus to the symphysis pubis from 17 to 12 inches; the distance from the umbilicus to the right anterior spine of the ilium from 16½ to 12½ inches; and the distance to the left anterior spine from 15 to 12¼ inches; that the circumference three inches above the umbilicus was 41 instead of 48¾ inches, and three inches below the umbilicus, 42 instead of 46 inches.

During this time the patient had been walking about her room, sleeping comfortably on both sides, and even dressing herself with a silk dress which she had not before been able to make meet on her person for more than two years. She was also perfectly confident of her complete recovery.

During the Christmas holidays she very imprudently walked over nine squares on Chestnut street, and became so exhausted that she had to go into a store for rest. Two days after, there was some œdema of her right foot and her urine became scanty, but it contained no albumen. From this time she grew steadily weaker, notwithstanding the free use of stimulants and fluid nutriment, and finally died from exhaustion on Saturday, February 1st, at 12 P.M.

At the *post-mortem* examination, when the abdominal walls were separated from their adhesions, a number of fibrous cysts were found, from the size of a goose-egg down to that of a pea, in a state of collapse and empty of fluid. The peritoneal surface of the abdominal walls, at those parts where the integument was hypertrophied, was singularly coated with a product in a state of evident degeneration. Upon cutting along the linea alba above the umbilicus, a large cavity containing twenty pints of a brown serous fluid was found. The viscera were all pushed up under the ribs, and the liver was shrivelled. The tumor was bound by broad bands to the liver and diaphragm.

The specimens were examined microscopically by Dr. Morris Longstreth, who furnished a report, of which the following is an abstract: "Tumor fibro-cystic, with firm, jelly-like feeling, covered with thick shining capsule, and connected by a short, flat pedicle to the fundus of the uterus. It was adherent to the abdominal walls below and to the right of the umbilicus, and also connected with the fundus of the gall-bladder. These adhesions contained large arterial and venous trunks, in whose walls were partly encircling, calcareous plates. The gall-bladder contained some biliary concretions, and the cystic duct was closed. The tumor was adherent to the omentum, which was shrivelled and devoid of fat. The uterus was slightly elongated, and its tissue was flabby and atrophied. On its peritoneal covering were found two pea-sized fibroid nodules. The ovaries were small and nodulated.

"A section of the tumor showed that its consistence varied greatly, as did its color, only limited portions showing the usual aspect of fibroid tissue. Numerous bloody points were seen, and many large and small, cyst-like, rounded areas. A microscopical examination of the tumor sufficiently established the undoubted fibroid nature of the growth."

The tumor and fluid removed weighed, the former 27½ pounds, and the latter 20 pounds, making a total of 47½ pounds, which was in striking contrast with the weight of the patient before the appearance of the tumor (107 pounds), and her weight when Dr. Hewson first began his treatment (165 pounds), thus showing a loss of weight of some 104 pounds to be put down

to the credit of the earth-treatment. Perhaps even a larger loss in the actual weight of the tumor might be claimed, since the patient was very much emaciated when she first came into Dr. Hewson's hands.

NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, March 27, 1879.

DR. SALVATORE CARO, CHAIRMAN.

THREATENED MAMMARY ABSCESS.

DR. O'SULLIVAN referred to a case in which, by the local application of extract of belladonna, he had prevented the formation of a mammary abscess.

DR. CARO remarked he had noticed in several cases that when belladonna was applied to one breast the pupil upon the *same* side became widely dilated, while the pupil upon the opposite side remained unaffected. He had also noticed that dryness of the mouth was confined to the side upon which the belladonna was applied.

DR. POST remarked that he had applied belladonna locally for the relief of frontal neuralgia, with the result of dilatation of the pupil upon the *opposite* side.

DR. CARO suggested that the nearness of the application might explain such a result.

CAULOPHYLLUM.

DR. SELL again referred to the beneficial effect produced by the fluid extract of caulophyllum for the relief of pains during the latter months of pregnancy.

UTERINE HEMORRHAGE AND INJECTIONS OF HOT WATER.

DR. POST referred to his recent favorable experience in the use of hot-water injections for the arrest of uterine hemorrhage—the water having a temperature from 110° F. to 120° F.

OBSTINATE URTICARIA.

DR. JOEL FOSTER referred to a case of urticaria which had resisted a great variety of treatment. Partial improvement had taken place under the use of quinine and dilute hydrochloric acid—a general tonic plan—pepsin, and various remedies, but the disease continually recurred.

DR. POST suggested a bath containing ℥ iv. of sulphuret of potassium to an ordinary bath-tub of water.

DR. CARO suggested the use of hyposulphite of soda in doses of five grains three times daily.

UNCHANGED CAPSULES OF QUININE.

DR. FOSTER mentioned an interesting fact in connection with the exhibition of quinine in the case reported. The patient was first attacked by the urticaria in the eighth month of pregnancy. On the fifth day before her confinement she had a decided chill, and the temperature rose to 106° F. He at once gave twenty grains of quinia in capsules. Forty-eight hours afterwards she had a second chill. The stools, which were semi-fluid, were examined, and found to contain the capsules unchanged. The quinine was then administered in powder, and the chills did not return.

A RECTUM PACKED WITH PILLS.

DR. POST referred to a case of obstinate constipation, in which the rectum was found blocked by a solid fæcal mass, requiring the scoop for its removal. When examined it was found to contain hundreds of pills.

PILL FOR RELIEVING CONSTIPATION.

DR. FOSTER suggested as a remedy for constipation a pill containing:

℞.	Rhubarb (Turkey).....	gr. iij.
	Carbonate of soda.....	gr. i.
	Ipecac	gr. ss.
	Oil of anise.....	gtt. v.

M.

To the above one or two grains of pil. hydarg. might be added at times with benefit. The pills should be taken at night.

CHEMICAL AND MICROSCOPICAL DIFFERENCES IN MILK FURNISHED BY THE RIGHT AND LEFT BREAST OF THE SAME WOMAN.

DR. CARO then read a paper in which was reported several cases in which he had noted microscopical and chemical differences in the milk from the right and from the left breast of the same person. In all his cases the milk from the right contained a very much greater amount of nutritive material than that from the left breast.

On motion the paper was referred to the Academy, and the Section adjourned to discuss nutrition from another standpoint.

CHICAGO MEDICAL SOCIETY.

Regular Meeting, March 17, 1879.

DR. E. INGALS, PRESIDENT, IN THE CHAIR.

DR. E. L. HOLMES read some notes on

ATROPIA, DUBOISIA, ESERINE, PILOCARPINE, AND MUSCARINE

as used in ophthalmic practice.

Atropia solutions frequently irritated the eyes, notwithstanding the addition of sodic sulphate or morphia, and a new mydriatic was desirable.

Hyoscyamine and ex. hyoscyamus were unreliable.

Duboisia was first obtained by Dr. Wecker, of Paris, in March, 1878; it was the product of a South Australian tree. Dr. Holmes had only seen two specimens. He had substituted it for atropia in a case of keratitis, in which prolonged use of the latter had caused great irritation of the conjunctiva and swelling of the lids. These symptoms at once subsided with the use of the duboisia—gr. i., aquæ ʒ ij.

According to Wecker and others, duboisia possessed the property of dilating the pupils and paralyzing the accommodation even more promptly than atropia.

Eserine and pilocarpine caused contraction of the pupils and spasm of the ciliary muscles. Patients under their influence could see objects only relatively near—just the opposite of the effect of atropia. The influence of eserine and pilocarpine was much less durable than that of atropia. The solution of pilocarpine was more durable than that of eserine, and was also reputed to be less irritating to the eye.

Eserine had been used with benefit in glaucoma, staphyloma, and conical cornea, ulcer of the cornea with or without hypopion, where the iris had been engaged in penetrating wounds or perforating ulcers of the cornea. It had been claimed that it reduced suppuration of the conjunctiva and inflammation of the nasal duct and sac.

While atropia was supposed to dilate the vessels of the eye, eserine contracted them. These two alkaloids were dangerous in iritis.

He had used muriate of pilocarpine in two cases of

keratitis punctata, often an obstinate disease. Speedy relief without irritation resulted.

In a case of staphyloma with increase of tension, and in one of conical cornea with ulceration and conjunctivitis, but without tension, this agent had relieved active symptoms. In three cases of ulcer of cornea with conjunctivitis, no benefit followed its use. The solution for local use had been gr. iv. to aquæ ℥ j.

Muscarine was one of the active principles of poisonous mushrooms. It was a syrup-like alkaloid, without color, taste, or smell, soluble in water. It caused spasm of the apparatus of accommodation. It contracted the pupils variably in different individuals. By union of muscarine and atropia, dilatation of the pupil and spasm of the ciliary muscles might be produced at the same time.

Muscarine in poisonous doses arrested the heart's action; atropine tended to neutralize the effects of muscarine on the heart. Atropine in doses of $\frac{1}{100}$ of a grain should be administered at intervals to patients who had taken poisonous mushrooms.

Dr. F. C. Hotz said the continued use of atropine tended to reduce tension of the eye and cause softening of the tissues. Frequently the solution pained the eyes and reddened the lids. He related some illustrative cases. He believed pilocarpine was the remedy of the future.

Dr. Lyman Ware said in one case of glaucoma he had used pilocarpine with benefit.

Dr. Holmes thought there was great danger, in the use of pilocarpine, that the existence of iritis might be overlooked and injury done.

Dr. R. G. Bogue reported the following case of

TRACHEOTOMY FOR TUMOR OF THE LARYNX.

A boy, ten years old, in July, 1875, caught a cold, which persisted with cough and expectoration of mucus, with occasionally slight difficulty of breathing. He lost flesh, and the obstruction of breathing by November became quite troublesome, and was worse while sleeping. Dr. H. A. Johnson found, with the laryngoscope, ulcer of the top of the epiglottis, and in the left aryteno-epiglottic fold a small tumor, which folded that side of the epiglottis downward and toward the median line, obstructing the respiration, especially when the laryngeal muscles were "off their guard," as in sleep. A twenty-grain solution of sulphate of zinc was atomized, with a hand-instrument, into the throat every two or three days; an alum gargle was ordered, and quinine. The case grew worse, and tracheotomy was performed January 2, 1876. The zinc solution was still applied, but with a post-nasal syringe. Improvement followed, except that the tumor did not disappear. In May he had whooping-cough, during the continuance of which the tumor diminished, and in two months was nearly gone. During this time he was taking iodide of potassium. In October only a slight nodule remained, and the tube was removed. The boy still had and has a partial loss of voice; he is only able to speak in a tone between a whisper and the ordinary voice.

There was no evidence of hereditary syphilis in the case.

Dr. Bogue also reported a case of

PHLEGMASIA DOLENS, WITH AMPUTATION OF THE LEG—THE CASE SIMULATING POPLITEAL EMBOLISM.

Mrs. ——, æt. 24, healthy, was delivered of her first child February 18th. The labor was natural, and nothing unusual occurred till the 23d, when the severest pain appeared in the calf of the left leg. This required for its relief large doses of morphia—half a grain being given at a time hypodermically. Moderate swelling of the leg and in the popliteal region occurred, with some tenderness. In three days the ball of the foot and side of the great toe became discolored; this appearance, with coldness and loss of sensation, rapidly extended up the limb, so that by March 5th the leg was gangrenous from its middle downward. The leg was only slightly swollen, and the foot was shrunken.

Pulsation of the femoral artery just below Poupart's ligament was quite feeble. The long saphenous vein was neither distended nor tender. There was now (the first day Dr. B. saw the case) no particular odor from the limb. The limb was kept very warm, and the patient stimulated slightly, and fed with nourishing food. By March 7th the gangrene had reached to within five inches of the knee. Spells of very severe pain continued. The lochia had ceased. No discomfort had been complained of in the pelvis. By the 14th a line of demarcation was apparent just below the knee. On the 16th amputation was made at and through the knee-joint. The soft parts at the seat of operation were firm from sero-plastic effusion. Lateral flaps were made, and secured through their anterior two thirds; posteriorly they were left open for drainage. The soft tissues of the popliteal space were divided at about the middle of the space. At this point the artery was patulous, but small; it was unobstructed "as far down as it was examined, which was beyond where it breaks up." It must have been unobstructed upward, for it throbbed well after ligation. Two popliteal veins and all the deep veins were full of firm clots, the subcutaneous ones alone being free. The clots in the deep veins did not extend "above where the internal saphena joins, for this was unobstructed." The patient recovered, notwithstanding some burrowing of pus in the thigh. Two weeks after the operation a phlegmasia dolens of the other limb came on, which, however, was not severe.

The case was clearly one of phlegmasia of the deep veins of the leg. Dr. B. regarded it as a very rare form of the disorder. Gangrene occurred from the sudden complete obliteration of a large part of the venous system of the leg.

Dr. R. Park and Dr. D. W. Graham presented pathological specimens of bones.

Correspondence.

STILLMAN'S JOINT SPLINT.

To the Editor of the New York Medical Record.

Sir:—I have just read an article in the Record entitled "A New Joint Splint, with a Description of its Application to the Knee," in which Dr. Stillman presents to the profession an apparatus for which he claims many advantages, especially in its power to produce fixation and graduated extension in joint diseases. The principles of the application of joint extension appear to be so misunderstood by the writer in advocating the use of his apparatus, that I cannot refrain from calling attention to the article. Without doubt, in certain cases of knee-joint disease, where there is little or no deformity, the brace proposed by Dr. Stillman would be of some use in producing fixation; but in well developed arthritis, whether originating in the cartilage, synovial membrane, or ligaments, I cannot see how it can be of the slightest benefit.

The real indication in joint diseases is absolute rest of the part, together with moderate extension. Any one, on first observing an individual case, must notice nature's exaggerated efforts to meet these indications. Reflex muscular contraction in joint diseases is, primarily, conservative, although it results, if unchecked, in contracture and consequent deformity. How are we to prevent the deformity, and, at the same time, produce equal and moderate extension, together with fixation? The difficulties in devising any practical apparatus for the knee-joint are very great. Here we have the largest and strongest articulating surface, protected by numerous ligaments and surrounded by powerful muscles. Hence, in order to produce extension or overcome deformity, it is necessary to exercise great force, and that, too, continuously for a long time. Not only so, but the direction of the force is a matter of the greatest consequence. It must be exerted in two directions: first, in the line of the deformity, *i. e.*, extension of the joint; second, in opposition to the deformity, *i. e.*, extension of the contracted muscles. If we view the instinctive muscular contraction as primarily conservative, we must graduate our extension of the muscles by our extension of the joint. Now, it is impossible to fulfil these indications with the instrument devised by Dr. Stillman, inasmuch as, from its construction, it can do no more than overcome by a steady pressure the excessive flexion. And this action must be more of disadvantage to the diseased part than of benefit. We are aware that one of the chief troubles after operation for false ankylosis at the knee-joint (*brisement forcé* of Bauer) is the inflammation consequent upon the pressure together of diseased articular surfaces, since all the force used in breaking up the adhesions is expended upon the joint, which must necessarily be the fulcrum of the lever. And if this be the case in the comparatively short time of operation, how much more must it be true when the knee-joint is made the fulcrum of long-continued lever-force.

The distinction between extension of the knee-joint and extension of the leg, has evidently not occurred to the doctor.

Now, a word as regards the apparatus itself. The doctor designs producing extension and counter-extension of the limb by means of two strips of steel, connected at the knee by a compound ratchet-bridge, and fastened to the thigh and leg by leather and metallic girths, or by plaster-of-Paris. He relies on the natural conformation of the thigh to produce counter-extension, direct extension being produced by riveting the apparatus to the shoe. It would almost seem as if the doctor had never made use of the instrument he has designed, for an application of it, according to his description, would be very difficult. The natural conformation of the thigh will allow counter-extension, but only when the constriction of the limb is very excessive. The tissues of the middle and lower thigh are very yielding, and the close application of the apparatus to overcome this tendency would amount to almost virtual strangulation. After some little time there would necessarily occur a great deal of atrophy in consequence. This would be so especially in case plaster-of-Paris were used, since its well-known tendency to contract on setting would make it almost impossible to obtain an accurately fitting surface. Had the doctor designed uniting the adhesive plaster with the plaster-of-Paris in such a manner as to make extension and counter-extension with the adhesive plaster, the desired action would have been much more certain.

Again, the use of the slotted strip does not seem to present the same facilities for graduated extension, nor so much certainty of retaining it, as the usual arrangement of the ratchet and key. In the latter case we have the extension-power directly under our control, with no possibility of its slipping away; while the method of unloosening slot-screws and pulling the lower part of the brace down seems very rude and inaccurate. Moreover, any one who has ever applied extension to the knee-joint, and is aware of the tremendous force necessary to accomplish it, would look upon the doctor's plan as futile. The only result accomplished would be the breaking of the plaster-of-Paris under the strong pressure. The truth of the matter is that braces, in most cases of chronic inflammation of the knee-joint, cannot meet the desired indications. Operation, either tenotomy, *brisement forcé*, resection, or amputation, according to existing conditions, seems to be the best known method of treating these chronic deforming diseases. In cases after operation, where fixation is necessary for a length of time, the instrument devised by Dr. Stillman might be of service, although, even in such cases, either Sayre's splint or the continuance of the plaster-of-Paris would meet the same indication, and be much more simple.

Yours truly,

JOHN R. HOBBIE.

211 EAST 13TH STREET, April 7, 1879.

NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I see by the papers that the President has included among the members of the National Board of Health the name of Dr. Verdi, of Washington. Is he not the homœopath whose appointment, some years ago, as member of the Washington Board of Health caused such an excitement in the local Medical Society? Was not Dr. Bliss disciplined for consulting with Dr. Cox, whose offence was sitting in the same board with Dr. Verdi? Really, we think that the American Medical Association should, at its approaching session, take notice of this, even if it be necessary to propose a new amendment of the Code as was done last year to cover the case of the Michigan University.

Yours respectfully, X.

MEDICAL REPORTS IN THE NEWSPAPERS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—It cannot, of course, be supposed that the surgical staff of Charity Hospital were cognizant of the presence of "a chiel amang them takin' notes" for the press on the occasion of Dr. Howe's recent operation for the transfusion of human milk, or that they were responsible for the publication, in the *World* of April 13, of a *verbatim* report of the professional colloquy over the case—a column in length, under the large-capped heading "A New Thing in Surgery." Naturally, none of the gentlemen concerned in the performance could suspect that the "large concourse of spectators" was not altogether of a medical character, or that a surgical procedure, in itself neither difficult nor uncommon, would furnish material for a newspaper sensation. But, in view of the inevitable ubiquity of the modern reporter, and the apparent inability of our metropolitan surgeons and physicians to exercise any control over the selection of their audiences, I would submit the expediency of persuad-

ing the American Medical Association to rescind that clause of the Code of Ethics which prohibits "to publish cases and operations in the daily prints, or suffer such publications to be made; or to invite laymen to be present at operations." This and sundry other sections of the said Code have long been proven incompatible with the practice of several of our most prominent practitioners, and if the public at large insist upon having stenographic details of everything said and done by a favored few of our brethren, whether in college lectures, papers before presumably private societies, or "interviews" touching esoteric medical theories, the respect for the will of the majority on which our whole system of government rests (to say nothing of our own reputation for consistency), should induce us to at once remove such mere verbal obstacles to the gratification of the public demand.

I am, sir, yours, etc.,

Sic nos non nobis.

APOMORPHIA IN CYNANCHE.

To the Editor of The Medical Record.

Sir:—At an early hour on the morning of Feb. 17, 1877, I was called in great urgency to see the infant son of Mr. B. F. J ——, one of my *clientele*. The father, who had come for me in person, to insure my immediate attendance, while I was dressing gave me the following condensed history of the case: The child, which was about two years old, had complained slightly the day before, and even the night previous to that; but the parents, being young and inexperienced, "thought it was nothing but a cold," and paid no attention to a series of symptoms (as detailed by the father) that would have excited the fears of older and more experienced persons. "Last night," added the father, "the little fellow did not seem to be so lively as usual, and was a little fretful; but, beyond a *mewing* sort of a cough, we never noticed anything wrong with him. He slept with his nurse in the next room to his mother and myself, but, though the door was open between us, neither of us knew that there was anything serious the matter until I went into the room a few minutes ago and found him in spasms and choking to death." On arriving at the house, which was distant but a half-block from my office, I found my little patient in a truly alarming and pitiable plight. He was lying on the bed, the head and trunk drawn far backward, with marked opisthotonos. The face was cyanosed and livid, the hands clenched, and from between the firmly-set teeth slowly exuded a frothy mucus. The struggle for breath, the gasping, whistling effort to inhale the air, was simply horrible, and it was plain that unless relief was very prompt the combat could not be maintained much longer. Death was near at hand. I had in my hypodermic case a solution of hydrochlorate of apomorphia, containing one per cent. of the salt, and without hesitation I injected five (5) minims of it under the skin of the arm. I then directed the father to take the child in his arms and hold him face downward, and, with my watch in hand, I awaited results. In two minutes and fifty seconds, almost without an effort, copious vomiting came on and a membranous cast of the larynx and trachea was expelled. *Per saltum*, as if by magic, the terrifying and urgent symptoms disappeared, and a new lease of life was taken by my little patient. The subsequent treatment of the case I need not detail here, the patient making a quick recovery.

My object in transcribing the above is to emphasize the statement made by Ellis (Diseases of Children, Wood's Library Ed., pp. 104–5), that "apomorphia is an excellent emetic in croup, in doses of one-fortieth of a grain"—though the dose used by me was double this amount.

Frank L. James, Ph.D., M.D.

Osceola, Ark., April 18, 1879.

ERGOT IN THE TREATMENT OF PNEUMONIA.

To the Editor of The Medical Record.

Sir:—Having noticed articles in recent numbers of the Record, on the treatment of pneumonia in Bellevue and the Episcopal hospitals, with, in the former, a rather discreditable mortality, I am induced to make known, through the Record, a remedy which, to my knowledge, has not previously been employed in the treatment of this disease, and which, in ten cases, has yielded better results than any other treatment.

The value of ergot in hæmorrhage from the lungs has long been appreciated, and, from its therapeutic action, I have for years been persuaded of its equal efficacy in pneumonia; but not until this winter did I venture to depart from the "orthodox" treatment and employ it.

In all of the ten cases the "rusty" sputa was speedily and permanently arrested, and the attack in half the cases aborted; in the others, so shortened as to recover in six or seven days.

This remedy acts as promptly in pneumonia as in hæmoptysis, whether used hypodermically or "per ora," and in a few hours arrests the "rust" by relieving the intense congestion on which it depends.

I usually combine it as follows:

℞. Fl. ext. ergot.....f. ʒ iv.
Tr. digitalis.....f. ʒ j.
Plumbi acetatis.....gr. vj.
Aqua cinnamomi.....ad. f. ʒ ij.
M.

Sig. Give a tablespoonful every two hours until bloody sputa stops—then twice a day.

I begin the treatment by an antipyretic dose of quinine—from 40 to 60 grains—which, in connection with the ergot mixture, equallizes the pulmonary circulation, relieves the congestion and inflammation, and the patients recover in about half the time required by other modes of treatment.

Firmly believing that this treatment far excels all others in its rapidly beneficial results, I present it to the profession for trial. Respectfully,

J. T. Wells, M.D.

Bakersfield, Cal.

PERINEAL AND UTERINE LACERATIONS.

To the Editor of The Medical Record.

Sir:—Reflex uterine action as a cause of perineal and cervical lacerations is being more clearly recognized now than ever before. Our advance in physiology enables us to deal more intelligently with nature's processes in parturition where this reflex force is an important factor for good or evil, and for evil of course, when a laceration occurs. My attention was called to this subject in attending a primipara in premature labor at the seventh month. On entering her room, I supposed I was almost too late, as she was having the characteristic pains that attend the passage of the head through the outlet. On examination I found

the bag of water pressing strongly against the perineum and os externum, but in the interval that the dilatation of the os uteri was not over one inch, it being a case of polypoid prolapse of the membranes. At the next pain I ruptured them, with the effect of stopping the expulsive effort, and the labor went on with the ordinary dilating pains. Now, what was the cause of the expulsive effort? Why, simply reflex action caused by pressure of the bag of water on the perineum. This being the case, it brings up that questionable practice of supporting the perineum to prevent laceration, when that very pressure or support by reflex action increases the expulsive effort and makes a laceration more imminent. Under such support, "secundum artem," is it any wonder that Simpson should have been chagrined at the number of perineal lacerations that occurred in his practice, and when unwittingly the preventive means proved to be the cause of the disaster? Though formerly taught to support the perineum, I now *religiously* let it alone, merely restraining too quick advance by direct pressure on the head, thus causing it to recede between pains when it would not otherwise do it.

That we should assist nature in all cases, and beware of meddlesome interference, brings me to notice the cause of lacerations of the cervix. That they are often the result of reflex force I am quite certain, and that the extra force that causes the laceration is generated by a too early rupture of the membranes. Physicians are so often impatient of delay that, to expedite matters, they rupture before there is full dilatation. At first nature seems somewhat surprised at the intrusion, and makes a short halt, but head-pressure brings her to her senses through reflex action, and the pains are largely increased in force, and with this increase comes a laceration of the cervix. When pains are deficient in power the os may be irritated by pressure with the finger, without rupturing the membranes, which should be left intact till nature ruptures them, or indicates that she has not power to do so.

J. M. WARD, M.D.

CORNELIA, MO.

New Instruments.

A DOUBLE CANULATED NEEDLE.

By D. A. CURRIE, M.D.,

ENGLEWOOD, N. J.

THIS is a new instrument; it is of very simple construction, consisting of two hollow, curved needles, with bevelled points, and handles attached, as may be seen by Fig. 1, in the accompanying woodcut, which shows the instrument *closed*. Fig. 2 shows it open, with the suture passed through the needles. The intention was to use wire sutures only, but reference to Fig. 1 shows a thread (so to speak) about to be drawn through by means of a fine flexible hook, thereby inducing the introduction of silk sutures perfectly easy.

The general modus operandi of this instrument will immediately suggest itself to the gynæcologist and surgeon without my entering more fully into detail. However, I hope the brethren will not rate me an enthusiast when I claim that a very important desideratum has been attained in the completion of the double canulated needle for several reasons, viz., it saves much valuable time and patience; it renders the operations of vesico- and recto-vaginal fistulas comparatively easy. Both (edges or lips) are transfixed at exactly opposite points, just where they are desired, and simultaneously, and without distortion of either lip.

It is so perfectly adaptable in general shape, size, etc., as to be used within very small compass. It also

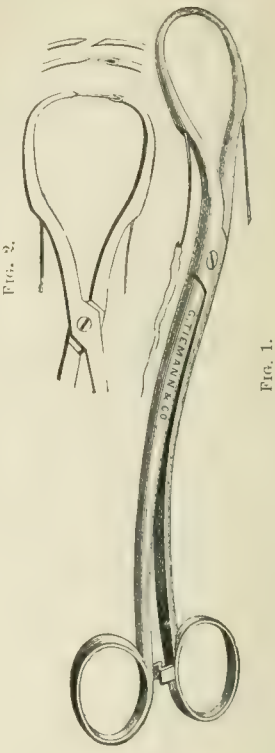


FIG. 2. FIG. 1.

twists the suture when wire is used. The only parts of the operation that the skilful manipulator cannot do with it, is to cut the wire or to pare the edges of the fistula. In twisting the suture, unnecessary strain upon the tissues should be prevented by means of a tenaculum, held so as to protect them. The following case of lacerated cervix uteri will corroborate my statement:

The lady had suffered from extensive laceration to the right and left, with cystic ectropium of the cervix left since the birth of her last child, five years previously. The general pelvic ache and neuralgic pains from which she suffered during menstruation were excessive. Shreds of a membranous appearance would also be thrown off during this time, accompanied with a very offensive fetor, which would continue until menstruation ceased, when both the shreds and offensive odor would disappear.

The uterus was much hypertrophied, and retroverted in about the second degree; its depth was three and a quarter inches, with a glairy *muco-purulent* discharge almost constantly from the distorted os. She was subjected to local treatment for three months, by which the general condition of the organs was improved, and an operation for the repair of the laceration was performed in the usual manner, with this exception, that the *double canulated needle* performed a very important part of the operation; the result of which was complete union, leaving to all appearances a virgin os.

Within the short space of four months the womb was reduced to two and three-quarter inches in

depth, the pelvic ache and neuralgic pains had almost disappeared, together with the shreds of membrane and accompanying fetor.

She at present is, to use my own language, "perfectly well."

In conclusion, I safely say that, after having tested this instrument in a case of recto-vaginal fistula with equally gratifying results, I feel warranted in giving it this strong recommendation to the medical fraternity in general, and the gynæcologist in particular.

The instrument was made for me by Mr. Stohlmann, of Geo. Tiemann & Co., New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 6 to April 19, 1879.

JANEWAY, J. H., Major and Surgeon. Detailed as member of the Retiring Board in session in New York City, vice Surgeon J. H. Bill, hereby relieved. S. O. 92, A. G. O., April 16, 1879.

O'REILLY, R. M., Capt. and Assist. Surgeon. Relieved from duty at Charleston, S. C. (post discontinued), and to accompany the command to McPherson Barracks, Atlanta, Ga. S. O. 63, Dept. of the South. April 11, 1879.

ELBREY, F. W., Capt. and Asst. Surgeon. Relieved from duty at Oglethorpe Barracks, Savannah, Ga. (post discontinued), and to accompany the command to McPherson Barracks, Atlanta, Ga. S. O. 63, C. S., Dept. of the South. Granted leave of absence for six months on surgeon's certificate of disability. S. O. 89, A. G. O., April 12, 1879.

HARVARD, V., 1st Lieut. and Asst. Surgeon. To accompany 18th Inf. to Fort Assiniboine, and on arrival to be relieved from further duty there and return to Dept. of the South. S. O. 35, C. S., Dept. of Dakota.

REED, W., 1st Lieut. and Asst. Surgeon. Leave of absence extended 15 days. S. O. 38, Div. of the Pacific and Dept. of California, April 9, 1879.

PERLEY, H. O., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Pembina, to proceed to Bismarck, report for duty to Commanding Officer 18th Inf., accompany that regiment to Fort Assiniboine and take station at that post. S. O. 35, Dept. of Dakota, April 12, 1879.

PRESBYTERIAN HOSPITAL—ELEVENTH ANNUAL REPORT.—There have been 555 cases treated in the hospital during the past year, with a mortality of 7.02 per cent. An exceptionally large number of important surgical operations are recorded. Nineteen tumors were removed, including an epithelioma of the tongue and sarcoma of superior maxilla. There were two lumbo-colotomies, an excision of hip, ligation of lingual and femoral arteries, lithotrity, etc. A very complete report is given by the pathologist, Dr. Satterthwaite.

ST. MICHAEL'S HOSPITAL.—ANNUAL REPORT, Newark, N. J., Jan. 1, 1879. This hospital, with a capacity of between 70 and 80, has treated 891 patients during the past year, its out-door department including over 5,000 more. Two amputations of the thigh, partial removal of lower jaw, removal of tumor from the neck, are some of the more important operations performed.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 19, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Apr. 12, 1879.	0	8	178	1	23	25	3	0
Apr. 19, 1879.	0	3	188	3	22	33	0	0

REDUCED RAILWAY FARE TO ATLANTA, GA., FOR THE DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION AND THEIR FAMILIES.—The Piedmont Air-Line (Penn. Central, by way of Richmond, Danville, Charlotte) offer tickets from New York, and return, for $37.25. Pullman car all through, and for the delegates only, if a sufficient number apply. Two through trains daily, leaving Jersey City at 10 P.M. and 8.20 A.M., to arrive at Atlanta in thirty-eight hours. On Sunday no morning train. Passengers leaving by 10 P.M. Saturday, 3d May, may stop ten hours on Sunday either at Washington or Richmond, take the express train in the evening, and arrive at Atlanta 10.30 P.M., on Monday, the 5th May; a good arrangement as to convenience and seeing the scenery of the country.—Apply J. L. Waldrop, Gen. East. Passage Agent, 8 Astor House, New York.

PRIZE OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.—This prize of $500, for an original essay on some subject connected with medicine or surgery, is open only to the competition of the Alumni of the College of Physicians and Surgeons of New York. The conditions upon which the prize will be awarded are as follows: 1. The subject is left to the option of the competitor. 2. The essay must present sufficient original experimental or clinical observation to make it a useful contribution to medical knowledge. 3. The essay, designated by a motto, must be sent to a member of the Committee on Prize Essays, accompanied by a sealed envelope, inscribed with the motto, and containing the name and address of the author, on or before February 1, 1880. Committee: A. Brayton Ball, M.D., 38 West 36th St.; T. A. McBride, M.D., 12 East 28th St.; Robert F. Weir, M.D., 37 West 33d St.

THE DEATH-RATE IN RUSSIA.—In the year 1877 Russia seems to have had the heaviest death-rate of any country that keeps mortality statistics. According to the recent report of the Medical Bureau, in a population of eighty millions deaths occurred at the rate of from 30 to 50 per thousand. Diphtheria caused the largest mortality, next typhus, and then small-pox.—*Lancet.*

TAPE-WORM IN A CHILD AGED TWENTY-TWO MONTHS.—Dr. N. R. Derby, of Bergen Point, N. J., writes: I notice in the RECORD of Jan. 18, 1879, the report of a case of tape-worm in a child three years old. Having had recently a case still younger, I send particulars for your disposal.

Baby H—— was 22 months old when the mother noticed that the passages were studded with white patches, and at times almost entirely composed of

them. At length becoming alarmed, she brought me some of these specimens for examination, which I found to be pieces of Tænia solium. The child lives near by, and was under my observation nearly every day. It seemed to be in perfect health. The following was ordered given on an empty stomach:

℞. Ext. felicis liq. ..... ℥xxx.
Syr. zingib. ..... ʒ ij.
Mucil. trag. ..... ʒ ij.
Aquæ ..... ʒ j.
M.

One-half to be given for a dose and repeat. This brought away patches of two and three feet in length for a time. As the pieces began to appear again after a few weeks, pumpkin-seed tea was freely given while the child was fasting, followed by castor oil. This was efficient, and brought away twenty feet and the head. Adding to this what the parents had already secured and saved at my request, I find by measurement forty-five feet, and the parents are confident that at least half that much was lost before the child was brought to my notice.

Dr. George B. Wood's Bequests.—The will of the late Dr. Wood has just been admitted to probate and contains, among numerous other items, the following: His pathological cabinet he leaves to the Medical Department of the University of Pennsylvania, with the understanding that it is to be under the immediate supervision of the Professor of the Theory and Practice of Medicine, and that the sum of $200 is to be appropriated annually for its preservation and repair out of the increase of the money left to the University.

The bond and mortgage of the College of Physicians, which he held, amounting to $5,000, he presents to the society. He also bequeaths to it all his books on science and medicine, and appropriates the sum of $10,000, the income of which is to be employed in paying the salary of the librarian of the society, and in heating, lighting, and repairing its building.

$50,000 are left for the permanent endowment of the Auxiliary Faculty of Medicine in the University of Pennsylvania. His medicinal plants he leaves to the Medical Department of the University of Pennsylvania, placing them under the care of the Professor of Materia Medica and Therapeutics, and $5,000 is set apart for the construction of a botanical garden and conservatory as an adjunct to the same chair.

$75,000 are bequeathed to the University Hospital, for the foundation of a free ward of twenty beds, to be called the "Peter Hahn Ward," in memory of his father-in-law.

The Children's Hospital and Philadelphia Dispensary receive $5,000 each.

A certain part of the income accruing from the cranberry lands, in New Jersey, belonging to Dr. Wood, is to be invested yearly in the name of the University of Pennsylvania, and when this investment amounts to $500,000, it is to be divided, half going to the medical department and half to the other departments—law, academical, and scientific—of the University.

In consideration of his numerous bequests to this institution, it is stipulated that all patients from Cumberland Co., New Jersey, up to a certain limit, applying for treatment at the hospital, shall receive such treatment and their beds and board in the wards gratis.

Stevens' Triennial Prize, 1882.—This prize, established by Alexander H. Stevens, M.D., amounts to two hundred dollars. The subjects for the next prize are as follows:

I. *Lesions of the Brain, in connection with the two Forms of Diabetes.*

II. *Diphtheria, in its Relations to Membranous Croup.*

The competing essays, on either of the above subjects, should give an account of our present knowledge, and also the results of personal investigation. They must be transmitted to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1882. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced at the Annual Commencement of the above-named College, in March, 1882. This prize is open for universal competition.

J. C. Dalton, M.D.,
Secretary of the Commission.

Diastased Iron.—This latest pharmaceutical novelty is prepared by soaking cress seeds in a solution of iron. The seeds of course absorbed the solution and begin to sprout. The process is then stopped, and the seeds dried and sugar-coated. Diastase is of course formed when the seed begins to germinate. Arsenic and iodide of potassium are diastased in a similar manner.

Nutritive Value of Peptone.—At a meeting of the North-western Medical and Surgical Society, held March 19, 1879, Dr. George B. Fowler gave a preliminary report upon the results of recent researches undertaken by him regarding the alimentary value of digested meat. The results of his experiments are very satisfactory, and look towards the introduction of peptone as the proper nutritive material in cases where hitherto such adventitious substances as beef-extracts, milk, and blood have been resorted to. It is especially adapted, Dr. Fowler maintains, for intra-venous injection, and his successful experiments upon animals were verified by a trial upon the human subject. This important and practical matter will be more fully elaborated in a paper shortly to appear.

BOOKS RECEIVED.

The Anatomy of the Joints of Man. By Henry Morris, M.A. M.D., Lond. Philadelphia: Lindsay & Blakiston.

Essays on Surgical Anatomy and Surgery. By John A. Wyeth, M.D. New York: W. Wood & Co., 1879.

Auscultation and Percussion. By Herbert C. Clapp, A.M., M.D. Boston: Houghton, Osgood & Co., 1879.

Wood's Medical Library. Frerichs on Liver. Vol. ii. 1879.

A Treatise on Therapeutics, &c. By H. C. Wood, Jr., M.D. Third Edition. Philadelphia: J. B. Lippincott & Co., 1879.

A Practical Treatise on Surgical Diagnosis. By Ambrose L. Ranney, A.M., M.D. New York: W. Wood & Co., 1879.

On Diseases of Abdomen, &c. By S. O. Habershon, M.D., London. Philadelphia: H. C. Lea, 1879.

A Treatise on Gout and Rheumatism. By Peter Hood, M.D. Second Edition. Philadelphia: Lindsay & Blakiston, 1879.

On Spermatorrhœa. By Roberts Bartholow, M.D. Vol. II. W. Wood & Co., 1879.

Original Communications.

THE ADIRONDACK REGION AS A THERAPEUTICAL AGENT IN THE TREATMENT OF PULMONARY PHTHISIS.

(Read before the Medical Society of the State of New York.)

By ALFRED L. LOOMIS, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL DEPARTMENT OF NEW YORK UNIVERSITY, N. Y.

PART II.

CASE VII.—Miss C——, aged eighteen, in the spring or early summer of 1875 reached the Adirondacks in a very feeble condition. She had had a cough for six months, with frequent pulmonary hemorrhages, attended by fever, loss of flesh and strength. Physical examination of the chest revealed dulness on percussion, bronchial respiration, and crackling râles at the apex of the right lung. Her improvement began at once; at the expiration of three months she had gained eleven pounds in weight, had no cough, and had so regained her strength as to be able to take active out-of-door exercise. In early fall she returned to her home, and has there remained in good health.

In this case the pulmonary consolidation was evidently catarrhal in its nature, and of recent date. That she came to the Adirondacks in the earlier stages of the disease probably had much to do with her rapid and complete recovery.

CASE VIII.—Mr. B——, aged thirty-two, with a decided hereditary predisposition to phthisis, took up his residence in the lake region of the Adirondacks in the summer of 1875. After he left home, before he reached the Adirondacks, he had a severe hemorrhage. For three months after his arrival he was in a critical condition, had severe cough, frequent hemorrhages, fever, and rapid emaciation. He did not begin to improve until late in the fall, after which time his improvement was steadily progressive. During a two years' residence in the region he fully regained health and strength, his cough ceased, and in August, 1878, I could find no trace of disease in the lungs, except old pleuritic thickenings and adhesions at the apex of the left lung. In September, 1878, he left the Adirondacks.

During his first year's residence in the Adirondacks no physical examination was made, but he stated that previous to his coming into the region his medical advisers had told him that his lungs were extensively diseased, and that he had come with a "forlorn hope." His disease commenced as a "severe cold," and unquestionably his case was one of catarrhal phthisis.

CASE IX.—Dr. T——, aged thirty-two, with marked hereditary tendency to phthisis, came to the Adirondacks in the summer of 1875. For ten months he had been ill with well-marked phthisical symptoms. The upper third of the right lung was consolidated, with circumscribed liquid râles in the supra-scapular fossa. At the apex of the left lung there was exaggerated rude respiration, but no râles. He remained four months, in camp the greater portion of the time. As he improved he became restless, and could not be induced to longer remain. His weight was now 148 pounds; he had gained twelve pounds, and had no cough. After leaving the Adirondacks he went South, but returned in the spring in a most enfeebled condition; weight 127 pounds, with pallid countenance, difficult breathing, and so weak that he was obliged to lie down the greater portion of the time. The entire upper lobe of the lung on the right side was consolidated, and abundant râles were heard throughout the consolidated portion. The respirations at the apex of the left lung had become markedly bronchial in character. He began to improve, and by the first of December had regained his appetite and strength. Again he became restless, left the Adirondacks, went to Colorado and California, was twice near death, and in early summer returned to the Adirondacks "in extremis," with a large cavity in his right lung, and commencing softening in his left lung. Having thrown away his chances for recovery, he died in early winter.

A series of mistakes marked the course of this patient. A short time previous to his death he stated to me that in attempting to follow the advice of his Philadelphia physician, who recommended a warm climate, and that of his New York medical adviser, who recommended a cold climate, he had made the result a failure.

As we review his history, it seems to me that we are warranted in coming to the conclusion that the result might have been different had he remained in the Adirondack region for the two or three years succeeding his first visit.

CASE X.—Mrs. M——, aged twenty-eight, with no hereditary tendency to phthisis, consulted me in the fall of 1876. She had a cough which was paroxysmal in character, with little expectoration. For several months she had been losing flesh, had had daily fever and night-sweats; at times she had suffered from severe attacks of dyspnœa, which were followed by an expectoration which she termed "stringy." Physical examination revealed pulmonary consolidation posteriorly at the apex of the right lung, with sharp bronchial râles over the consolidation. At different points over the chest dry and moist râles were heard, and I made the diagnosis of probable fibrous bronchitis, with pulmonary consolidation at the apex of the right lung. I advised her to spend the winter in Asheville, N. C., where she obtained little if any relief. During the winter she expectorated a number of well-formed bronchial casts. On her return, I found her more feeble than when I first saw her, and the area of lung consolidation increased.

Following my advice, in June she went into the lake region of the Adirondacks, remained nearly a year, and entirely recoved from the bronchitis and pulmonary consolidation.

This case was one of well-marked plastic bronchitis, with circumscribed consolidation at the apex of the right lung. When we recall the fact that the majority of cases of chronic plastic bronchitis are followed by phthisis, and terminate fatally, the complete recovery reached in this case is somewhat surprising.

I would call attention to the fact, that in this case the climate of the Adirondacks produced such different results from that of Ashville, N. C.

CASE XI.—Miss F——, aged nineteen, of a non-phthisical family, consulted me in March, 1875, having taken cold the previous January. She was rapidly losing flesh, had an almost constant hacking cough, night-sweats, with other well-marked phthisical symptoms. On physical examination, I found complete consolidation of the upper third of the right lung, with crackling râles posteriorly. Evening temperature 103°, and pulse feeble. She had lost ten pounds since January, and was easily exhausted. Ten days after I first saw her she had a profuse hemorrhage; in two days this was followed by a second. She was so reduced in strength by these hemorrhages, and her

general symptoms became so aggravated, that unless soon arrested it was evident her pulmonary disease would progress very rapidly, and soon terminate fatally; I feared acute phthisis.

In the early part of April she went to Washington, was carried to and from the cars; she remained six weeks, with very little improvement in her condition, the entire upper lobe of the right lung having now become involved in the pulmonary consolidation. The early part of July she reached the Adirondacks. She rapidly began to improve, and when I examined her the following October, she had gained twenty pounds in weight, coughed only in the morning after rising, had no fever, and had a pulse of 80. Bronchial breathing was heard posteriorly over the area of the pulmonary consolidation, while quite extensive pleuritic adhesions and thickening could be detected in front. She spent portions of the summer and fall months in the Adirondacks for the two succeeding years, and now regards herself perfectly well, and is so regarded by her friends.

The pleuritic changes which occurred during the active progress of the disease alone give evidence of her former pulmonary disease. When this patient first went to the Adirondacks, not only did her disease involve a large amount of lung-tissue, but her general condition was very unpromising, her stomach was exceedingly irritable, and her emaciation was rapid and her anæmia extreme.

Case XII.—Mrs. P——, aged forty, from a non-phthisical family, first came under my observation in March, 1877. Since 1869, she had suffered with phthisical symptoms; at times her case had been regarded as hopeless. Physical examination revealed fibrous induration of the upper lobe of the right lung, with the physical signs of cavity under the right clavicle, and pleuritic thickening over the entire lung. Pulse 100, feeble and easily accelerated. Temperature 101°; extreme dyspnœa consequent upon exertion. She had night-sweats, was extremely anæmic, not markedly emaciated, but her weight was less than when in health. Cough paroxysmal and violent, with slate-colored expectoration; her appetite was capricious, and her disease had made marked progress since the early part of January. In early summer she went to the lake region, where she remained until fall. In her general health the improvement was very marked; but little change took place in the physical signs. During the winter there was little change in her condition. Early the following summer (summer of 1878), she went to the Adirondacks and into camp, where she remained until the following October. Not only was the improvement in her general health very marked, but her cough almost entirely disappeared, and her general physical condition was better than it had been since the commencement of her disease. The fibrous induration remained at the apex of the right lung, although vesicular breathing could be heard over the remaining portion of the lung.

When I first examined this case I regarded it as one of fibrous phthisis, and only hoped for that complete cicatricial process to be developed which renders the diseased lung-tissue inactive. While, as yet, she has not reached such a condition, her steady improvement without any new lung-tissue becoming involved, and the absence of any evidence that degenerative processes have been developed in the lung-tissue already involved, leads me to believe that if the same climatic influences be continued, which during the past two years have produced such beneficial results, at length the desired result may be obtained.

Case XIII.—Mr. S——, aged thirty-one, with a good family history; at my suggestion went to the Adirondacks in the early part of the summer of 1876.

He first consulted me in the fall of 1875, had then been ill about one year; had well-marked phthisical symptoms. He had received a most unfavorable prognosis from medical men in this country and in Europe. A physical examination revealed quite extensive consolidation of the apex of the right lung, with sharp crackling râles. I advised him to spend the winter in Asheville, N. C. On his return in early summer, I found that although his general condition had somewhat improved, his pulmonary disease had made considerable progress. Soon after his arrival in the Adirondacks he was seized with an acute cystitis, which prostrated him very much. Although he remained nearly two years in the lake region, his pulmonary disease steadily but slowly progressed. In the spring of 1878, in an extremely debilitated condition, he returned to his home in Ohio.

In this case, the disease from its onset steadily progressed, and the diagnosis of tubercular phthisis which was made the first time I saw him, was confirmed by his subsequent history. While he was in the Adirondack region, although at times he seemed to be improving, the periods of improvement were of short duration, and each exacerbation of fever left him in a more and more enfeebled condition. With each exacerbation of fever, new areas of lung-tissue became involved. At the time he left for his home in Ohio, suspicious bubbling sounds were heard over the original seat of his disease, and his respirations were amphoric in character.

Case XIV.—Mr. L——, aged twenty-two, with well marked phthisical symptoms, had been ill six months, when, in the summer of 1877, he took up his residence in the Adirondacks. At the time of his arrival his cough was constant, his expectoration was of a greenish color, and of tenacious consistency. He was rapidly losing flesh, had night-sweats, and shortness of breath upon slight exertion. Physical examination revealed consolidation at the apex of the right lung, with fine crackling râles in the supra-scapular fossa. He remained about one year, spending the summer and early fall in camp. His cough disappeared, and he gained fourteen pounds in weight. Ten months after his arrival no abnormal sound could be heard in his lungs, except feeble respiratory murmur, and pleuritic creaking at the end of a full inspiration at the former seat of the pulmonary consolidation. He has continued perfectly well to the present time, and is now studying law. This was a case of catarrhal phthisis in its first stage, in which, like the previous case of which I have made mention, the recovery from the pulmonary disease was rapid and complete.

Case XV.—Mrs. G——, of a non-phthisical family, first consulted me in April, 1878. She had suffered with well-marked phthisical symptoms for six months, the result of a cold contracted the previous summer while she was in a debilitated condition, which had been followed by a cough. Physical examination of the chest revealed consolidation of the upper two-thirds of the right lung, with circumscribed moist râles under the right clavicle with amphoric breathing. She was very feeble; had rapidly lost flesh; had night-sweats, loss of appetite, an almost constant cough, an abundant expectoration, with occasional spitting of blood, and dyspnœa upon slight exertion. Temperature in the evening, 103°; pulse, 110 to 120.

She went into the lake region of the Adirondacks in June, and returned the last of September. She made little or no improvement until the last of August; from that time she began to rapidly improve,

and has continued to gain flesh to the present time. She now weighs 38 lbs. more than before she went to the Adirondacks, and coughs only in the morning. Physical examination shows vesicular breathing over the seat of the former consolidation, except posteriorly, where the breathing is broncho-vesicular in character, and pleuritic creakings are well marked. No signs of cavity can be detected.

The improvement in this case did not commence until two months after she reached the Adirondacks; in fact, for a time the disease seemed to be progressing with some degree of rapidity. During this time she had two quite profuse hemorrhages. The changes in the diseased lung were so extensive, and of such a nature, that I did not hope for recovery. The increase in weight has been greater and more rapid than in any other case of phthisis which has come under my observation.

Case XVI.—Mr. R——, aged thirty, of a phthisical family, began to cough in the winter of 1876. Two months after he began to cough he had a hemorrhage. Soon after the hemorrhage he began to have fever and to lose flesh. He first consulted me in May, 1876. He then presented the appearance of one in advanced phthisis. He was emaciated, had an evening temperature of 102° and 103°, and had great difficulty of breathing, becoming exhausted from the exertion attending the ascent of a flight of stairs. Physical examination revealed extensive consolidation of the upper lobe of the right lung. Distinct bronchial respiration could be heard from the clavicle to the upper border of the fourth rib. He went into the Adirondack region, where he remained a year. On his return to New York he presented the appearance of perfect health. He had no cough, and said he weighed more and felt stronger and better than he had for years. Physical examination revealed only pleuritic thickening over the former seat of the pulmonary consolidation. No physical examination of the chest was made from the time he went into the Adirondack region in early winter until his return to New York, one year later. He stated that his improvement commenced about three weeks after he reached the Adirondacks, and that every day during the winter months he spent from six to eight hours out of doors.

He has remained in New York until the present time, and has had no return of his phthisical symptoms.

Case XVII.—Mr. A——, aged thirty-one, with a strong hereditary tendency to phthisis, had his first hemorrhage in Feb., 1877, after which he rapidly lost flesh and strength, and in June, when I first saw him, he was extremely emaciated and anæmic; had a constant hacking cough, with muco-purulent expectoration, and frequent slight hemorrhages. Temperature ranged from 100° to 103°; pulse never below 100, and easily accelerated. Physical examination revealed slight consolidation at both apices, with moist, bubbling râles in left supra-scapular fossa. He went to the Adirondacks in July, and remained nearly a year, during which time his disease slowly but steadily progressed. A physical examination in July, 1878, revealed a cavity at the apex of left lung, with infiltration of the entire left lung. I advised his return to his family.

In this case the diagnosis of tubercular phthisis was made at the first examination. The subsequent history and the uninterrupted progress of the disease fully sustained the diagnosis first made.

Case XVIII.—Mrs. O——, aged thirty-four, with no hereditary predisposition to phthisis, first consulted me in May, 1878. She had coughed for six months, had repeatedly had hemorrhages. She went south during the winter of 1877–1878, where she did badly, rapidly losing flesh and strength, and had afternoon fever and night-sweats. Pulse 102° F., feeble and easily accelerated. Afternoon temperature 102.° She complained of dyspnœa on slight exertion, and became easily fatigued, was anæmic, had no desire for food, and was dyspeptic. A physical examination revealed consolidation of the upper third of the left lung, with bronchial râles and pleuritic adhesions over the entire left side.

In July she went to St. Regis Lake (Adirondacks), where she remained three months. Immediately she began to improve; the cough became less and less troublesome, her appetite returned, and she soon gained 14 lbs. in weight. By the first of September her pulse and temperature were normal, and by the first of October the only physical evidences of disease were slight pulmonary consolidation under left scapula, and pleuritic creaking in left infra-clavicular space. She has continued to improve since her return, and is now apparently well.

This was another case in which the rapid and continued improvement was unexpected. The general appearance and condition of the patient when first seen by me was unpromising. The perseverance or fixedness of purpose, and good sense of the patient, I believe had very much to do with her marked improvement. She remained out of doors nearly the whole of every day, took no risks, and made use of everything in her surroundings which would aid in bringing about the desired result.

Case XIX.—Mr. M——, aged thirty-four, consulted me in the spring of 1877, having had a pulmonary hemorrhage. For the previous three months he had been rapidly losing flesh and strength, had fever, night-sweats, and was extremely anæmic. He had had cough with expectoration for more than a year. Physical examination revealed consolidation of the apex of the left lung as far as the lower border of the third rib, with quite extensive pleuritic changes and marked retraction of the left side of the chest. He had repeated hemorrhages, was confined to his room for several weeks, and it was the latter part of June before he was able to travel. Early in July he started for the Adirondacks. He presented the appearance of a person in advanced phthisis, and physical examination at this time detected marked retraction of the left chest and bronchial dilatation in the left supra-scapular space.

During July and August his improvement was very slight, and it was the latter part of August before he was able to go into camp. He remained about two months in camp, during which time he regained his normal weight, his strength returned, and he had great physical endurance. Late in the fall he returned to New York, presenting the appearance of one in health, although he still had cough and shortness of breath, and physical examination showed little change in the consolidated lung. His improvement continued until the following March, when he again grew worse, lost flesh, and had occasional fever. In May he had another slight hemorrhage. An examination of his chest showed an increase in the pulmonary consolidation since the previous examination; pleuritic adhesions and thickenings were detected over the whole of the left side, with more marked retraction of the left side. He again went to the Adirondacks, and remained in camp the greater portion of the summer and fall. He rapidly regained flesh and strength, and all his active phthisical symptoms again disap-

peared, excepting morning cough with expectoration. Little change could be detected in his physical signs. Unquestionably, this is a case of fibrous phthisis, and although while he remains in the Adirondacks he regains his flesh and strength, and the progress of the disease seems to be arrested, yet little or no improvement can be detected in the diseased lung.

CASE XX.—Miss H—— had her first pulmonary hemorrhage, which was quite profuse, in January, 1877. Within the week following this first hemorrhage she had frequent hemorrhages, averaging more than one per day. During the preceding year her physical and mental labor had been unusually taxing or severe, and she was not in her usual health. For several months she had suffered more or less from nasal, pharyngeal and bronchial catarrh. She first consulted me in June, 1877, at which time she presented all the symptoms of well-developed phthisis. She had constant cough, with muco-purulent expectoration frequently streaked with blood, was emaciated, had fever, night-sweats, loss of appetite, shortness of breath, etc.

A physical examination revealed consolidation of left lung from its apex down to the fourth rib, with abundant mucous râles over the left scapula. In the early part of July she went into the Adirondacks, and into camp. On her return from the region in November, I found her much improved; she coughed little, had no fever, had gained eight pounds in weight, could walk long distances without fatigue or shortness of breath. Physical examination showed marked diminution in pulmonary consolidation in the left infra-clavicular space; bronchial respiration and mucous râles were still heard over left scapula. She steadily improved until the middle of February, when she had a severe attack of influenza, from the effects of which she did not entirely recover, and June, 1878, found her in a worse condition than she was in June, 1877. Following the influenza, a pleurisy was established over the whole of the left pleura. This greatly increased her difficulty of respiration. June 11th she again left for the Adirondacks, went into camp July 1st, and remained in camp until October 20th. During the summer she had two slight hemorrhages, but she steadily regained her strength and weight, and seldom coughed. A physical examination, made the following November, showed entire absence of pulmonary consolidation at the apex of the left lung, and the only remaining physical signs of disease were pleuritic adhesions or thickenings over the upper third of the lung, with localized bronchial râles in the left supra-scapular fossa. Since November her improvement has been steadily progressive, she has the appearance of one in health, yet she has slight cough with muco-purulent expectoration; and physical signs of disease are still present.

The statement previously made in regard to the probable effect of a longer stay in the woods, holds true in this case.

A brief summary of the foregoing cases gives the following results:

Of the twenty persons who have tested the therapeutical power of the climate of the Adirondack region, by giving it an extended trial, ten have recovered, six have been improved, two have not been benefited, and two have died.

The ten cases of recovery were those of catarrhal phthisis; of the six cases in which improvement took place, four were those of catarrhal phthisis, and two were cases of fibrous phthisis. The two cases in which no benefit was received from a stay in the region were cases of tubercular phthisis, in both of which the disease steadily progressed, and at no time could it be said that it was even temporarily arrested. In both cases of fibrous phthisis, extensive retraction of lung had taken place, with bronchial dilatation and compensatory emphysematous developments. Exercise could not be taken, for very slight physical exertion brought on attacks of severe and frequent dyspnœa, and the severe attacks of coughing interfered with digestion and nutrition. In both cases, failure of the right heart was well marked. In both, the improvement manifested itself in the gaining of flesh and strength, rather than in any change in the lungs which could be appreciated by physical examination. I believe these cases would have done better in Colorado.

Those cases of catarrhal phthisis which were improved but not cured were those in which the pulmonary changes were extensive, or had reached the stage of excavation—cases in which complete recovery is always problematical.

In all these cases the improvement did not commence immediately—not until some time after the individual had taken up his residence in the region; and when it did commence, it was not constantly progressive. Each case had a long history of getting better and worse, but each advance toward recovery was more marked than the former. Whether these cases will or will not reach complete recovery is a question, but I am certain that a permanent residence in the region greatly increases the probabilities of such a result, from the fact that in those cases which have come under my observation a temporary absence from this region has been followed by such sad results. In all the cases of catarrhal phthisis which have reached recovery, either the pulmonary changes were not extensive, or they were of recent origin, and improvement commenced soon after reaching the Adirondacks. The results obtained established the fact that a large proportion of the cases of this variety of phthisis, if they have not passed the first stage, or stage of consolidation, can recover.

The two cases that terminated fatally were cases of catarrhal phthisis. Although, when they came into this region, their lungs were extensively diseased, they were much benefited during their stay, and it seems to me that impatience and imprudence had very much to do with the fatal termination.

Results show that the climate of this region is better adapted to the treatment of catarrhal phthisis than of any other variety. I believe fibrous phthisis does better in higher altitudes—for instance, in Colorado.

My experience leads me to believe that climate has little beneficial effect upon tubercular phthisis.

For some time I have believed—in fact, I became convinced soon after I began to study carefully the effect of climate upon phthisical invalids—that a larger proportion of such were benefited or cured in a cold than in a warm climate.

The testimony of those who have spent a winter or more than one winter in the Adriondacks is, that improvement was far more rapid during the winter than during the summer months; and I have found by physical examination of the lungs, that the arrest in the morbid processes and the establishment of the curative processes was more marked during the winter than during the summer months.

I shall have accomplished my purpose, if by this hastily prepared paper I shall have awakened in my professional brethren the spirit of investigation as regards this extensive health-restoring region within the boundaries of our own State, which we have been passing by, while we have sent phthisical invalids far from home and friends to regions far less restorative.

SCARLET FEVER IN CHICAGO.

By HENRY M. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF DISEASES OF THE NERVOUS SYSTEM, RUSH MEDICAL COLLEGE, CHICAGO.

HAVING lately read in the MEDICAL RECORD an interesting editorial summary of the facts regarding scarlet fever, gathered from a study of its recent prevalence in New York, it has occurred to me that a review of our own experience in Chicago may not be without value.

I have now before me a chart compiled from the official records of the Health Office, which exhibits by the graphic method the course of the mortality from scarlet fever in this city for every month during the past twenty-seven years. It admirably exhibits, with a degree of clearness which no mere columns of figures can illustrate, the uniformity of the action of the laws which control this mortality. In a large community like ours, the disease is always present, but its prevalence, and the consequent aggregate mortality, are strictly dependent upon the existence of a *susceptible* population. During the occurrence of what is called an epidemic, the disease reaches and smites down all, or nearly all, those members of the community who have not previously been rendered tolerant of its influence. The epidemic then dies out like a fire which has exhausted the stock of combustible material. Relieved from the pressure of contagion, the natural increase of population soon furnishes a new quota of susceptible individuals. The expiring embers of the conflagration flame up again, and the disease becomes increasingly frequent until another period of epidemic prevalence and subsequent exhaustion is evolved. This rhythmic course of the mortality from scarlet fever is admirably shown by my chart. It, moreover, brings to light the fact that the periods of greatest epidemic mortality succeed each other with remarkable uniformity at intervals of about seven years. This fact is related to the observation that the most susceptible period of life is between the first and the seventh year. Next to these causes, the greatest prominence must be assigned to the condition of the weather. The disease is partial to cold climates, and its greatest severity is experienced during the coldest months of the year. Excessive weather of any kind always produces an increase of mortality during its continuance. The chart, therefore, exhibits a notable increase of mortality during stormy weather in the spring and fall of the year, or when a period of unusual heat depresses the population during the summer months. Everything, in short, which makes life more difficult in a cold climate, tends to increase the mortality of scarlet fever. This fact is still further illustrated by a reference to the graphic chart. It shows that during times of rapid expansion of the city by immigration the ratio of mortality to the whole population has been greater than during periods of a quiet and natural increase. In other words, just in proportion to the degree in which people become thoroughly adjusted to their surroundings by long residence, or, better, by hereditary descent in the same locality, will their susceptibility to scarlet fever diminish. Consequently, the larger and the older the city, the greater the immunity from scarlet fever.

The effect of governmental intervention for the purpose of limiting the ravages of the disease has been also clearly illustrated by this chart. Previous to the year 1877, scarlet fever had been allowed to take its own course, so far as sanitary authority was concerned. The disease would gradually increase for about a year, reaching the climax of mortality during the most inclement month of the winter next following the outbreak. It would then begin suddenly to decline—rapidly falling off during the following year, with only such minor exacerbations as were directly attributable to the weather, until about eighteen months after the epoch of greatest severity, when the minimum of mortality would occur. This was always during the most salubrious weather of the early summer. The year 1876 was our last formative period. During the entire year the mortality kept steadily increasing, but with a lower ratio relative to the aggregate population than had been known in previous epidemics, notably, that of 1863, for example. Certain parties who were interested in the sale of alleged specifics against scarlet fever succeeded at this time in getting the ear of the public, and through the connivance of the newspapers, the community was wrought up to a terrible state of excitement about a commonplace epidemic in which it was clearly shown by the extensive investigations of Prof. C. W. Earle and others that the rate of mortality did not exceed ten per cent., and was probably less than nine per cent. The community, however, was beside itself with terror, and the aid of the civic government was demanded. A very worthy and energetic gentleman was made Commissioner of Health; the laws were doctored so as to give him a liberal handful of discretionary—that is, *despotic*—power, and it was announced that within sixty days scarlet fever would be unknown in Chicago. The climax of mortality had been passed, and the epidemic had commenced its usual rapid decline when the new officials were installed. They commenced operations with a stringent vigor that was as magnificent as it was frightful. All physicians were ordered to report every case of scarlet fever, and those who neglected to do so, and could be caught, were heavily fined. Every infected house was placarded with a tremendous red sign, recalling vividly to mind the horrors of the plague in London. There was a great deal of loud talk about confining people to their houses in case of exposure, but this project soon had to be given up, for the simple reason that people would not stay in their houses. Isolation and disinfection were diligently preached, and were carried into practice with unheard of zeal. In fact, we were never before so uncomfortable since the foundation of the city.

Well, what was the outcome of all this pucker? The epidemic went on its accustomed way, paying no more heed to the wrath of man than if it had been a West Indian hurricane. Favored by a remarkably mild summer and winter, during the year subsequent to the climax of mortality, there was less disturbance of its course by fluctuations of the weather than has been sometimes remarked; but, otherwise, its progress was unchanged, and the minimum of mortality was reached just eighteen months after the turning-point of the epidemic had been passed. The mortality then began again to increase, and has been gradually working up ever since, exactly as had been predicted by our eminent ex-sanitary superintendent, the well-known Dr. John H. Rauch. Our chart does not give the slightest sign to indicate that anything has in any way interfered with the natural progress of the disease; and yet a great effort was honestly and earnestly made to "stamp out the epidemic." But human nature is stronger than human law. At first, there seemed to be no escape. When a poor devil found his business destroyed, and the bread kept out of his mouth by a placard on the door of the little den where he lived and struggled to make a living for his wife and chil-

dren, expostulation and entreaty were of no avail. The laws of Illinois were as inflexible and as irrevocable as the laws of the Medes and of the Persians. But the approach of election-time wrought wonderfully to mollify the hearts of the great ones of the earth, so that now, when a big politician finds scarlet fever in the bosom of his family, it is discovered that the laws of Illinois confer large powers of discretion upon sanitary officials; so the odious placard is in such cases nailed against the *inside*, instead of the outside, of the door. From that favored position it is said that it diffuses throughout the entire household a healing influence, which is utterly lost in space when the warning card is displayed in the usual way.

What are the lessons which may be derived from this experience? I will not repeat the conclusions which have been so forcibly set forth by the editor of the MEDICAL RECORD. I will only add the following reflections:

I. We may see an illustration of the ineffable folly of trying to ignore the forces of nature and the laws which control the universe. Winds, and rain, and cold, and heat, and the prime causes of disease are beyond the power of man. We can intervene to a very limited degree; and often when we think we do the most, we only defeat our own efforts.

II. We also see the folly of attempting to ride roughshod over the feelings of people. Human nature is stronger than human law; and it soon became evident that a large proportion of the people would not have their houses placarded. This feeling was forcibly expressed to me by no less a person than the highest executive officer of the law, who declared that he would "just like to see anybody put a card on his door." This feeling is based, not merely upon prejudice, but upon an ineradicable feeling of opposition to the interference of government with the private rights and household arrangements of citizens. It is true that a good many thoughtless people —more or less consciously imbued with socialist notions about government—were very much taken with the idea of having other people's houses placarded; but, as a general rule, the only parties who thoroughly enjoy a placard on their own door are the people who have had trouble with their landlord, and consequently welcome scarlet fever in April as a means of getting even with their enemy. These being the facts, it did not take very long for the average doctor to find out on which side his bread was buttered. To their credit, or otherwise, it must not be forgotten that there was among our professional brethren a noble few who, more thoughtful of their duty to the public than of their obligations to their patients, never—well, yes, never—failed to report all their cases of scarlet fever. But, alas, many of us found the diagnosis of the disease surrounded by so many difficulties that often the approach of death alone sufficed to warrant a request for a "warning card."

III. We may learn the folly of attempting to enforce stringent measures in the case of endemic diseases with a comparatively low rate of mortality. It is true that our official statistics record a death-rate of about 24 per cent. from scarlet fever during the year 1878, but outside of the Health Office it is well-known that this is nearly or quite three times the actual rate. Consequently, it was found that the use of warning cards added nothing to the isolation of families suffering the disease. Besides this, owing to the great uncertainty which attends all measures of isolation and disinfection, it was found impossible to generate any widespread and lasting enthusiasm in favor of these latest resources of sanitary art. When people have burned their clothing, and have renovated their bedding, and have painted and varnished and disinfected everything regardless of expense, and have then seen a child emerging from a most scrupulous quarantine of six weeks after apparent perfect recovery, only to infect all his brothers and sisters, they generally conclude that they would rather let the children take their chances another time. And when other people have seen a single child passing through all the stages of malignant scarlet fever without the slightest attempt at isolation, and without infecting another individual in a large family, they are quite slow to regard scarlet fever as an intensely contagious disease.

IV. The last and most important lesson to be learned from our experience has reference to the proper limitation of the efforts of our sanitary authorities. In every instance where they have undertaken to intrude beyond the line which divides the public life of the citizen from his private relations, they have created evils greater than those they have sought to remove. Instead of the old-fashioned frank confession of scarlet fever with immediate notification of all the neighbors, we now have frequent concealment of cases, with all the petty deception and uneasiness which must grow out of such behavior. I have never met with anything which has done so much to debauch the conscience of the profession as this new method of "stamping out scarlet fever." If the health officers could be content to limit themselves to those functions which alone are consistent with good government, none of these evils would be experienced. Their authority should be supreme over the sanitary condition of all highways, alleys, and public places throughout the city. They may rightfully control the admission of children into the public schools, and should, therefore, seek to obtain the fullest information regarding the existence of contagious disease. They may properly abate all nuisances which endangers the welfare of the public. They may even enter the lobbies of hotels, and the yards and common passage-ways of tenement houses; but they cannot rightfully or wisely proceed a single step beyond the threshold which divides the public life of the citizen from his domestic relations. Sanitary enthusiasts and the inspired apostles of "state medicine" have got to recognize and to respect this line, if they desire any permanent influence with the community. It is their apparent indifference to these distinctions which makes thoughtful people so distrustful of the boards of health and similar associations which just now are so noisy. Unless they can learn these lessons and cease to encroach upon the private rights of citizens, they will as signally fail to accomplish their philanthropic ends as we have failed to stamp out scarlet fever in Chicago. Arbitrary methods can be tolerated—and then with but indifferent results for good—only in communities which have been effectually dragooned into servile subjection to the powers that be, or in regions where long enjoyment of a large measure of liberty has rendered people unsuspicious of the insidious methods by which their freedom is destroyed.

AMYL NITRATE A CARDIAC STIMULANT.—There is an accumulation of evidence that this drug is a prompt and valuable cardiac stimulant. Where a rapid action is desired, it has no equal. Even when inhaled in half-drachm and drachm doses, it has never done any harm. Physicians should overcome their fear in this regard.

A PECULIAR FORM OF CORNEAL OPACITY.

By RICHARD H. DERBY, M.D.,

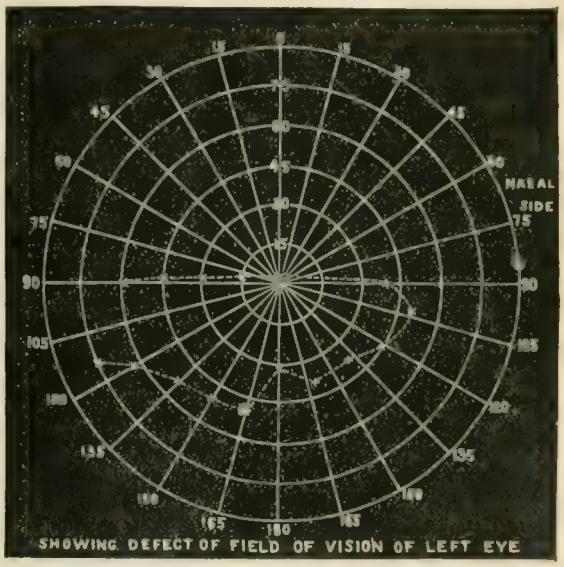
SURGEON NEW YORK EYE AND EAR INFIRMARY.

THE case that is here presented illustrates an affection of the cornea, of which, so far as I know, an adequate description will scarcely be found in the text-books.

The "band-shaped" * corneal opacity extends usually from one side of the cornea to the other, occupying the region exposed when the lids are but half open. It is symmetrical on both eyes, and the rest of the cornea continues quite clear and unaffected. The opacity lies in the superficial lamella of the cornea, the surface of which is sometimes dull; its color is gray or yellowish brown, later on here and there showing white spots. Von Graefe likens its appearance to the effect of smearing across the cornea salve containing some metallic salt.

The beginning † of this affection escapes the notice of the patient. He complains of dazzling, or comes for advice on account of slight failure of sight. There is at the outset, on either the nasal or temporal or both margins of the cornea, a faint opacity. These two regions of cloudiness slowly advance toward each other until they meet; the opacity now gains in intensity, and later on completely masks the subjacent pupil and iris. As v. Graefe shows, in this period it is purely a corneal affection with which we have to do. In a certain class of cases the tension of the eyeball increases, the pupil becomes inactive and dilated, and excavation of the optic disk takes place, as in glaucoma simplex. In another class of cases the pupil resists all mydriatics, the iris is discolored, posterior synechiæ are formed. With this chronic iritis the opacities of the cornea become more intense, are finely mottled with dark and light dots (consisting, perhaps, of carbonate of lime), and secondary glaucoma may be developed.

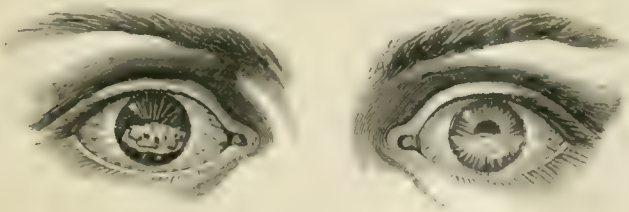
The case that is presented here illustrates two different stages of this corneal affection. Patient F. S., aged 54 years, has had trouble with his right eye since childhood. Nearly every year, for a fortnight at a time, the eye has been painful, and the sight gradually failed until about eight years ago the eye was practically of no use to him. More than twenty years ago he had pain in the left eye and lachrymation, but the sight of this eye did not begin to fail until within the last four years. Since then the eye has not been so strong, and patient has on this account in the last few months been unable to do his work as a mason. During this time he has frequently suffered from temporary obscurations, and has noticed rainbow colors around the lights. The right eye (see woodcut) presents the following appearances. Extending across the cornea and completely hiding the region of the pupil is an opacity containing probably calcareous deposits. There is occlusion of the pupil and the tissue of the iris is atrophied. There is a faint perception of light, but no projection. The appearance of the left eye is indicated in the drawing, and illustrates a comparatively early stage of the disease. The band-shaped opacity in its upper margin corresponds to the horizontal meridian of the cornea; it is nowhere transparent, and is of a grayish white color; its margins clearly defined and the cornea beyond clear. The pupil dilates moderately well under atropine, but neither after its use or with the stenopœic slit is the vision improved. The vision of this eye is $\frac{1}{\infty}$. Jæger No. 4 can be read in five inches. There is marked limitation of the visual field upward, inward, and downward. De Wecker * gives the name of *opacités glaucomateuses* to this corneal affection, which he describes as rare and found only among adults.



Clarke † has published three cases of symmetrical opacities of both corneæ. In two of these the opacity was of a rusty brown color, the deposit appearing to be pigmentary; in the third it was of a calcareous nature. In none of these cases does the author speak of any evidences of secondary glaucoma.

Bowman ‡ speaks of a form of opacity of the cornea which he believes to have its seat in the anterior elastic lamina. He describes it as creeping very gradually from near the border over the surface of the cornea toward the centre. "The epithelial surface retains its smoothness and lustre, and the opacity does not appear to have much depth. Other varieties of opacity, very chronic in their course, and evidently not inflammatory, are liable to form, as I believe, in the same tissue. They may be of a brown tint, with an indefinite margin, and may affect both corneæ at the same time. I am not aware that these are particularly described in books, nor whether they admit of removal or even arrest."

Of the pathology of the band-shaped corneal opac-



* v. Graefe: Archiv f. Ophth., XV. 2, p. 148.
† v. Graefe: l. c., p. 140.

* De Wecker's Thérapeutique oculaire, I., p. 200.
† Clarke: On some Rare Forms of Opacity of the Cornea. The British Medical Journal, Oct. 8, 1870, p. 378.
‡ Bowman: Lectures on Parts concerned in the Operations on the Eye, p. 38.

ity very little has been written. Recently Goldzieher * had an opportunity to examine an eye whose cornea presented a typical example of this affection. Upon removing the cornea and holding it to the light, here and there in the anterior lamella masses looking like free pigment could be seen. Under the microscope these masses proved to be colloid, lying in the most diverse forms in the superficial layer of the cornea. The corneal epithelium was thickened, and in places showed hyaline degeneration.

In the treatment of this affection von Graefe has pointed out the advantage of an early iridectomy, both in its effect upon the advance of the corneal process and in checking the secondary changes to which such eyes are liable.

CONTRACTED KIDNEY.

By WILLIAM S. ELY, M.D.,

ROCHESTER, N. Y.

(Read at recent meeting of New York State Medical Society.)

Mr. President and Gentlemen: The readers of "Ziemssen's Cyclopædia" will, I think, agree that Vol. XV., on "Diseases of the Kidney," is one of the most important of the series, and an able exponent of the most advanced views of kidney pathology.

My own experience has impressed me with the value of Prof. Bartels' article upon renal cirrhosis, in the volume referred to. This is a chronic form of kidney disease, to which the terms "contracted kidney," "interstitial nephritis," "renal sclerosis," and "granular atrophy of the kidney" have been applied by different writers.

Though authorities differ about the mode of production of the pathological condition bearing these names, they agree that the weight of the kidneys is reduced; that they are tougher than normal; that the capsules are often thickened and unusually adherent, and when torn off leave a granular surface. On section the cortical substance is seen to be greatly diminished, and, if the substance of the kidney is submitted to careful microscopic examination, it is found that the tubular structure and its contained epithelium have undergone extensive wasting. In addition to these changes, in every typical case, there is hypertrophy of the left ventricle of the heart, without valvular lesion. Bright noticed cardiac hypertrophy in some of the kidney conditions bearing his name, but its constancy with "contracted kidney" and its significance have been determined by Traube, Bartels, Grainger Stewart, and others. It has been attributed to increased tension in the general arterial system, due to vascular obstruction in the kidneys, and this hypertrophy is deemed as compensatory and conservative as is the case with valvular lesion.

Prof. Bartels has endeavored to prove that contracted kidney, the pathology of which I have just outlined, is often a distinct affection, not necessarily preceded nor followed by parenchymatous nephritis. It is the most insidious and easily overlooked of all chronic kidney diseases. Affecting frequently persons beyond middle life, its beginning is seldom recognized, and the disease may be far advanced before the physician's attention is called to it.

Occasionally the first premonition is a fatal convulsion or an apoplectic fit, and the detection of renal cirrhosis then becomes the work of the post-mortem examination. As a rule, however, certain significant symptoms are present during life. They relate to the nervous and digestive systems, and to the discharge of an excessive quantity of urine of a low specific gravity. It ordinarily contains a faint trace of albumen, and when the sediment from the entire quantity passed in twenty-four hours is concentrated in a conical glass only a very few hyaline casts may be detected. The patient at this time may be actively engaged in business; he may have the appearance of perfect health, and deem himself only slightly nervous or dyspeptic. A single examination of his urine will not determine the nature or gravity of the case, and it is essential for a correct diagnosis that the entire quantity voided in successive periods of twenty-four hours should be saved for examination, for the quantity may be a most important symptom. So largely increased is it, that the patient often considers himself affected with diabetes. In this opinion his physician may coincide. Many standard works treat of protracted and fatal cases of polyuria, under the head of diabetes insipidus, and class it among obscure nervous affections. Trousseau, Roberts, Dickinson, and others devote chapters to its symptomatology and hopeless tendencies, while upon its pathology they throw little or no light. Since the microscopic examination of diseased kidneys has supplemented the opinions resulting from observations by the naked eye, diabetes insipidus is found to mean renal cirrhosis; and so constantly is this the case, that I desire to raise the question suggested by Dr. Loomis, whether there is any such condition as diabetes insipidus terminating fatally without renal changes, and, I will add, without renal contraction? I cannot better call attention to the ideas which I am able only to summarize in this paper than by the recital of two cases, the first of which illustrates a frequent, and the second an exceptional, form of contracted kidney.

In June, 1876, Mr. ———, sixty-nine years old, a well-preserved man, of fine physique and healthy appearance, weight 194 pounds, consulted me for dyspepsia and irritable bladder. A specimen of urine then examined was slightly albuminous, but no casts were found. My next note of this patient is a year later, June 11, 1877. He had had faintness, and dull headache, with slight blurring of vision. On June 14th I measured the quantity of his urine for twenty-four hours, and found he had passed 54½ ounces, acid, specific gravity 1010. There was the faintest trace of albumen, and a few hyaline casts were obtained from the concentrated sediment.

Headache continued for several days, with dizziness and ringing in the ears. Repeated examinations of his urine gave an average of 71 ounces for twenty-four hours, of specific gravity 1012, every specimen containing a trace of albumen and a very few casts.

The normal urea discharge for this patient—adopting the usual estimate of 3½ grains per pound weight—was 679 grains daily, while his actual discharge was 420 grains.

I now made a diagnosis of contracted kidney, and in December, 1877, at my suggestion, he consulted Prof. Alonzo Clark, of New York, without, however, giving him my opinion.

Dr. Clark wrote me that he detected "slight hypertrophy of the heart, some albumen in his urine, and in one specimen hyaline casts;" and added, with that characteristic caution known to so many of us—that, "if this patient had not kidney disease, he was gravely threatened with it." Upon two or three urinary examinations Prof. Clark would seldom speak more strongly in a case of this kind.

The patient returned home, and I continued for a length of time my observations. The quantity of

* Centralblatt für prak. Augenheilkunde, January, 1879.

urine was always in excess; its specific gravity always low, with the merest trace of albumen and casts. There were the same nervous and dyspeptic symptoms above noted, but no dropsy, anæmia, or vomiting. Again going to New York, this gentleman saw another physician of high standing, who pronounced his kidneys healthy, and his difficulty to be cerebral. In due time he came back to me in the same condition as before. He is still living, has gained in weight, has no dropsy, but suffers constantly from symptoms of moderate uræmic poisoning; and though thirty-two months have elapsed since I first saw him, I still consider his disease contracted kidney—sure to end fatally in time. Yet, to-day, the evidence of kidney disease would appear so slight to many physicians who should only examine a small quantity and a single specimen of his urine, that it would be rejected altogether.

A more remarkable case recently came under my notice, which is so instructive that I present it somewhat in detail.

I was consulted, Nov. 23, 1878, by a man of splendid physique, weighing 215 pounds. Previous to his present indisposition, he had never been sick a day in his life. He had always performed an immense amount of work, which he had been forced to abandon a few days prior to calling me, on account of rapidly developing debility, the cause of which was to him unaccountable. I could detect no organic disease, but immediately examined a specimen of his urine. It presented nothing abnormal, except that specific gravity was too low. Two or three days later attention was called to his excessive thirst, which led me to direct that all the urine passed in twenty-four hours be saved for examination. To my surprise the quantity amounted to 113 ounces; it was acid, of specific gravity 1004, without the slightest evidence of albumen or casts. From this date, Nov. 29th, until Dec. 31st, I accurately measured the urine every day, except Dec. 19th, and it was carefully examined for albumen and casts. The quantity varied from 64 ounces to 141 ounces, giving an average for twenty-two days of 104 ounces. The reaction was always acid, and the specific gravity fluctuated from 1004 to 1012.

Instead of the normal discharge of 752½ grains of urea daily, his average discharge was only 368 grains. There was no visual disturbance, and he did not suffer from headache, vomiting, or dropsy. The temperature was normal, but there was increasing debility, with great repugnance to food, and the condition of the urine as above stated.

Entire absence of albumen and casts for weeks, and my inability, on account of excess of fat, to determine that his heart was enlarged, led me, conjointly with other physicians, to deem the condition one of profound nervous disturbance, with undue nervous excitation of the kidneys; but, back of all, some centric, nervous lesion, probably of fatal import. I became dissatisfied, however, with this vague opinion, and determined to submit a report of the case to Professors Flint and Loomis, of New York. They were told what is here stated, examined carefully the record of urine and the discharge of urea, and did not hesitate to express it as their confident opinion that I was dealing with a case of contracted kidney, and would very early have an opportunity to verify their diagnosis.

In support of this belief, Professor Loomis adduced the results of six post-mortem examinations by himself, one of which was parallel to that now reported, in that albumen and casts were absent for a number of weeks.

Just at this time my patient, whose temperature had never been above normal, had an access of fever, with severe pain in region of right kidney, and retention of urine. I drew off 43½ ounces with the catheter, and now for the first time albumen was present, with epithelial and granular casts; in short, there were the symptoms and appearances of acute nephritis. Cystitis soon developed, and septicæmia followed, inducing a deepening coma, and death on the 31st of December. At the post-mortem examination, made Jan. 1st, the kidneys were found contracted, and in a state of chronic interstitial nephritis, with evidence of recent inflammation in right kidney.

The bladder was hypertrophied, and signs of recent cystitis were present. The middle lobe of the prostate gland was enlarged. The heart weighed 15½ ounces; other organs healthy.

We have here, gentlemen, evidence that a man had been able to do a large amount of work with the appearance of perfect health, while a most serious disease was in progress, for which he asked no advice until two months before it terminated his life. What I desire to have you specially observe is, that in this case the only symptoms noted were: rapidly developing debility, loss of appetite, extreme thirst, and the passage of urine excessive in quantity and of a low specific gravity.

Bartels, whose able article I hope all will read, in his report of seventy-seven cases of contracted kidney noted *but one* in which albumen was absent for any length of time. On page 440, Vol. XV. of Ziemssen, he reports one case in which albumen was entirely absent from the urine for twenty-nine days. *He therefore did not recognize the renal malady during life.* The urine of his patient was examined daily from the 29th of January to the 3d of March. An attack of fever occurred on the 27th of February, and slight albumen then appeared. The post-mortem revealed contracted kidneys. In *my* case the most careful examination did not afford a particle of albumen or any casts for twenty-three days, and I do not believe that they would then have appeared had not the acute inflammation supervened.

Why do I lay such stress upon these particulars?

It is to impress what is now firmly believed by myself, in the light of these cases, that the most serious of kidney lesions may be in progress, when, for over three weeks, neither albumen nor casts may demonstrate its presence.

How then is it to be recognized?

I believe *that in the exact determination of the quantity of urine and urea passed daily* we have an element for diagnosis more important than the profession has generally supposed.

Albumen may be absent, casts may be absent for weeks continuously, as I have shown; but when in any non-hysterical patient the urine is excessive, and the urea is habitually more or less deficient, and there is profound nervous and dyspeptic disturbance, and especially when we have with these conditions hypertrophy of the left ventricle of the heart, without valvular lesion to produce it, we are justified in the assumption of renal contraction as the cause—an assumption which time will probably develop into a conviction.

I need not add that contracted kidney is incurable, but its early recognition may often enable us to save our patients much useless medication, and so to dispose their daily lives as greatly to prolong them.

In the foregoing paper it has been my object:

1st. To call attention to renal cirrhosis as a distinct

affection, with hypertrophy of the left ventricle of the heart as a constant factor.

2d. To raise the question whether there is any such condition as fatal diabetes insipidus, independent of organic kidney disease?

3d. To impress the fact that, for the diagnosis of renal cirrhosis, long-continued examinations of the entire quantity of urine, voided in successive twenty-four hours, and estimates of its contained urea, are necessary.

4th. To prove by clinical experience that albumen and casts may be absent from urine for three weeks, when contracted kidney is far advanced, without headache, vomiting, dropsy, and uræmic amaurosis.

Reports of Hospitals.

THE WOMAN'S HOSPITAL, PHILADELPHIA.

Notes of Practice and Peculiarities of Treatment.

THE USE OF THE HOT-WATER DOUCHE IN POST-PARTUM HEMORRHAGE, WITH ILLUSTRATIVE CASES.

(Reported for the MEDICAL RECORD by ANNA E. BROOMALL, M.D., Resident Physician.)

For many years the injection of cold water into the uterine cavity, as a means of arresting post-partum hemorrhage, has received varied consideration. The older obstetricians considered it a bold procedure, attended by many dangers, and not to be resorted to except in extreme cases. Some thought it impracticable from the difficulty of obtaining the necessary implements. Others disapproved of it, because its employment necessitated wetting the patient's bed and clothing; the latter objection, even if it could not be met by the use of a bed-pan, should not weigh for a moment when life is in danger.

The only point worthy of consideration in the practice is its hæmostatic value. In regard to this, we do not find that it has met with the success which was claimed for it, for which perhaps some allowance should be made from the want of confidence in it, and hence want of thoroughness in its use; however, in the instances in which it was resorted to in the Woman's Hospital, it failed to arrest the hemorrhage, notwithstanding all due care was taken in its employment, ice-water was used, and the stream was directed into the uterine cavity. For the past two years it has been altogether abandoned, and the hot-water vaginal douche substituted.

It is remarkable that so valuable a method of inducing uterine contractions as the stream of hot water should not have been utilized earlier in the treatment of post-partum hemorrhage. Kiwisch, in 1846, recommended, as a means of inducing premature labor, a continuous stream of warm water to be directed upon the cervix uteri.

Scanzoni directed further, for the efficiency of the douche, that the temperature of the water should be from 100° to 110° Fahr., the stream should be continued from ten to fifteen minutes, and should be repeated every two or three hours, until the onset of uterine contractions. Churchill found that the separation of the membranes from the uterus, together with the heat from the water, brought on labor after eight or ten repetitions.

The credit is said to be due to Dr. Emmet, of New York, for the use of the hot-water vaginal douche for the arrest of hemorrhage in gynæcological practice; but little has been said or written upon the value of this treatment in post-partum hemorrhage, with the exception of its recommendation in the second edition of Playfair's System of Midwifery, and of a report by Dr. Atthill of its successful use in sixteen cases in the Rotunda Hospital, of Dublin. A remedy so efficient, always available, and so free of danger, should be taught from every chair of obstetrics and in every work on midwifery.

There is no anxiety in the entire obstetric practice greater than that attendant upon the occurrence of post-partum hemorrhage. If ever prompt and efficient aid can turn the balance for life or death, it is at this moment. I can compare the sensations of the accoucheur at such a time to nothing more agonizing than the feelings attendant upon efforts to save the drowning, when at every grasp the unfortunate slips further and further away, slipping into death from between the very hands extended to save.

I have had the misfortune to lose two patients from post-partum hemorrhage, being called in both instances after delivery. Friction on the abdomen, pressure of the uterus, elevation of the hips, clearing the uterine cavity and vagina of coagula, and use of ergot, all failed in one case to induce uterine contractions, and the patient died within one hour after delivery. In the other instance the uterus contracted, but too late to save life. Since I have found that hot-water vaginal injections will produce such prompt results, I feel that had I then known their use my patients might have been saved. To those obstetricians who have had a similar experience, I have no need to urge the adoption of any means which has proved efficient in the arrest of hemorrhage; but it is to those beginning the practice of obstetrics, and to older practitioners, who thus far have fortunately escaped these frightful obstetric accidents, that I would urge the trial of a means, always available, since the necessary implements are to be found in every household, and always efficient, as I believe, since it never yet has failed me.

The means of controlling hemorrhage from the uterus after delivery, is by thrombosis of the uterine sinuses, and this may be brought about in two ways—by uterine contractions, and by the direct application of styptics, with this difference, however, that in the former method the contracting muscles limit the clots to the orifices of the uterine sinuses, while in the latter method there is nothing to limit the thrombi, and consequently the patient is subjected to the great danger attendant upon the washing of clots into the general circulation. Thus it is found that the safer treatment in post-partum hemorrhage is to employ some means which will imitate nature by exciting uterine contractions, and for this the hot-water douche proves efficient. It is thus employed: A bed-pan, largest size, is placed beneath the patient's hips. A Davidson's syringe is used in preference to a fountain syringe, as an intermittent stream has been found more effectual in exciting contractions than a continuous stream. The water should be of the temperature of 110° Fahr., and not less in quantity than two quarts. A higher temperature is not well tolerated, and a lower temperature is ineffective. The amount of the injection is given as not less than half a gallon, but the rule is to continue the injection until the return stream is clear. Care is taken to see that the syringe is in good order, and that the air is thoroughly forced out before use. According to Dr. Anna

M. McAllister's suggestion, we have substituted for the ordinary vaginal nozzle a tube of the same calibre, but six inches in length, which has the advantage of easy insertion, and obviates partly the great objection to the use of syringes in hospital practice, namely, the contact of the soft rubber with the vaginal walls. I am convinced that septic materials have been absorbed by the hose of the syringe and carried from one patient to another. I believe the only safety is in the provision of a separate syringe for each patient, to be used for her alone, and to be destroyed upon her discharge. The pecuniary objections to this in hospital practice are insurmountable, so we make a compromise between money and puerperal infectious diseases, by using the long metallic tube in place of the shorter vaginal nozzle. The tube should be inserted within the uterine cavity through the internal os, which may be recognized on careful examination, and it should be introduced to the fundus. It has been suggested to enlarge the perforation at the extremity of the tube in order to obtain a larger stream of water. Any coagulum which may interfere in the introduction of the nozzle, should be broken up, and the clots will be carried out in the return stream. If the right hand is used for introducing the tube, the left hand should be placed upon the abdomen, and should grasp the fundus, which should be the rule in any case where there is necessity to carry hand or instrument into the uterine cavity. As the water is injected, the relaxed uterus will become firm and hard beneath the hand, and the stream from the vagina will be less and less mixed with blood. It should be observed that in this simple operation we combine other means, and very important means, for exciting uterine contractions and arresting hemorrhage, namely, first, clearing the vagina and uterine cavity of coagula, and second, manual compression of the uterus. Nor does it interfere with other valuable expedients in post-partum hemorrhage, as elevation of the hips, etc. The rule for the time of continuance of the douche, as well as the frequency of repetition, depends not only on the promptness of the establishment of uterine contractions, but also on their permanence.

In the lying-in wards of the Woman's Hospital during the past six months, it has been the routine practice to use the hot-water vaginal injection in every case after delivery of the placenta, and, during that period, notwithstanding circumstances predisposing to relaxation of the uterus, there have been but two cases of post-partum hemorrhage, neither of which were from uterine relaxation, but both from laceration of the cervix. In several instances prolonged and complete anæsthesia was necessary for obstetric operations; but the uterus contracted promptly after the use of the douche, and in the instances of hemorrhage the flow of blood was quickly arrested.

These two cases, to which reference has been made, with one occurring in the out-practice of the hospital, are of sufficient interest to warrant their report in detail.

Case I.—Elizabeth McL., aged 30, Irish, primipara, employed as a domestic, was in labor when admitted September 13, 1878. Dilatation was slow, and upon its completion, pains being inefficient, and the head having reached the inferior strait, the patient was etherized, and I applied Simpson's forceps and extracted a living child nine pounds in weight. Six minutes after the birth of the child, the placenta was easily delivered according to Credé's method, and, while the patient was still unconscious from the anæsthetic, the uterus being firmly contracted, a large stream of bright blood was observed to flow from the vagina.

The hand was introduced, and the vagina and uterine cavity found free of coagula; but upon further investigation the blood was found to flow from a deep laceration on the left side of the os uteri. The wound extended up into the uterus, but was limited to its inner surface, thus avoiding an opening into the peritoneal cavity. The os uteri was drawn down to the vulvar orifice, where bleeding could be watched, and, from the force of the flow as well as from the size of the stream, it was believed that the circular artery was opened. It was decided before resorting to the difficult operation of ligation to try the hot-water douche. The grasp upon the os was relaxed, a stream of hot water directed upon the wound, and the flow of blood was immediately arrested. The patient made a good recovery, and was discharged seventeen days after confinement.

Case II.—Lizzie B., aged seventeen, American, primipara, was admitted in October, 1878. Labor began on the evening of the 18th; dilatation was, however, not complete until the afternoon of the following day, when the uterine contractions were so feeble that at 4.23 A.M. I applied Simpson's forceps, and in twelve minutes extracted a living child of 9½ pounds weight. There was no delay in the delivery of the placenta, and there was no hemorrhage either after the birth of the child or after the expulsion of the placenta. The lying-in was normal, with the exception of slow involution of the uterus, but there was no pain, tenderness, or other symptom of metritis. Suddenly on the seventh day, during my absence from the hospital, the patient being still confined to her bed, there occurred a hemorrhage from the vagina; the flow was profuse, but was temporarily checked by elevation of the hips. After an interval of two hours the hemorrhage was repeated, and was severe, attended with great pallor, faintness, and cold sweat. I then made a careful vaginal examination, and found a deep rent on the right side of the cervix, and extending into the vagina. I traced the flow of blood to the wound. Immediate resort was had to the hot-water douche, which completely controlled the hemorrhage for the time. The flow of blood returning, though with less force, a continuous stream of hot water, by means of a reservoir syringe, was maintained for two hours, and there was no further hemorrhage. The patient was very anæmic, and made so slow a recovery that she did not leave the hospital until the fifty-fourth day after parturition. Previous to her discharge vaginal examination revealed a deep laceration on the right side of the cervix. The edges of the wound were gaping, and cicatrization was not entirely complete. Bands of adhesion extended down to the right lateral wall of the vagina. This case is certainly unique. A secondary postpartum hemorrhage, which must have been caused by a slough of the cervix opening the circular artery. The amount of blood could have come from no other source, as a vaginal examination at the time of the hemorrhage showed that the flow did not come from within the uterus, thus excluding the placental site as the source of the hemorrhage.

The third case occurred in the out-practice of the hospital. Jette S., aged twenty-two, German, already the mother of two children, was delivered by a midwife on January 30, 1879. The pains were said to have begun at three o'clock in the morning, but the labor was not terminated until 9.30 A.M. of the same day. The child was large, the pains were reported to have been severe, and the labor rapid. Interference

in the placental delivery was positively denied. At about ten A.M. the midwife recognized "something wrong," and sent for medical aid.

Dr. Frances E. White was summoned at noon, and found complete inversion of the uterus, the patient in collapse, pulse 140 per minute, and very feeble. Dr. White sent for me to assist her, but I did not reach the patient, who resided some distance from the hospital, until one P.M. I found much the same condition as reported on Dr. White's arrival. The patient was very restless, and was making bearing-down efforts at short intervals. Vaginal examination revealed a round body, size of a child's head, projecting into the vagina. The upper constricted portion, if any part could be called constricted, was found to be the rim of the os, and continuous with the tumor. The surface was covered with a film of coagulated blood, and there was a slight oozing upon an attempt to reduce the inversion. Anæsthesia was then determined upon, and, as ether was being procured, Dr. Edward T. Watson came, who had been summoned by the family previous to the arrival of Dr. White, and who very kindly assisted in the case. Etherization being effected, I introduced the right hand into the vagina, and by making upward pressure on the most dependent portion of the tumor, first with one finger and then with two, I succeeded in indenting the uterus, and by careful and continued pressure in correcting entirely the inversion. The uterus, when replaced, was completely relaxed, giving the hand the sensation of being in a great rubber bag, and all efforts at friction over the abdomen, movement of the hand within the uterine cavity, etc., failed to excite contractions. A hypodermic injection of ergot was equally unsuccessful. Resort was then had to the hot-water douche, and immediately firm and strong uterine contractions followed its use, the hand was withdrawn, and the uterus remained firmly contracted. There was no flow of blood after the reduction—in fact, there had been no very great hemorrhage since Dr. White's attendance; but from the previous flow the bed and clothing of the patient were saturated, and a vessel half filled with coagula stood beneath the bed. During the etherization the pulse improved in volume and diminished in frequency, but upon recovery of consciousness the radial pulse could not be counted, and the patient had all the symptoms of extreme collapse. The restlessness attendant upon hemorrhage was anticipated by the hypodermic use of morphia. The patient, being warmed and stimulated, rallied somewhat, so that the radial pulse returned, and beat at the rate of 130 per minute, and a slight trace of color appeared in the lips. This improvement, however, was but temporary, and at seven P.M. the patient became very restless, notwithstanding repeated hypodermic injections of morphia. She complained of intolerable thirst, her respiration became sighing, the skin lost its warmth, and the radial pulse rose to 170 per minute. Dr. Albert H. Smith, who very kindly saw the patient with us in the evening, agreed that transfusion of blood was the only hope. Dr. Charles T. Hunter very promptly and cheerfully consented to perform the operation, which, however, owing to unavoidable delay, was not begun until ten P.M. When about an ounce of blood had been injected the patient became moribund, and died during the transfusion.

The examination of the placenta showed it to be entire in its outline; it was somewhat torn about the centre, but there was little or no loss of its substance.

The hot-water douche acted most promptly and efficiently in this case, exciting uterine contractions, in actual collapse, and not only inducing contractions but maintaining them, for even after death the uterine globe was found firm and contracted below the umbilicus. Had assistance reached the patient earlier after the occurrence of the accident, the inverted uterus been replaced, and contractions excited by the stream of hot water, I believe the result would have been very different.

Progress of Medical Science.

Diabetes Complicated by Symmetrical Gangrene of the Plantar Regions.—Dr. Magnin published in the *Journal de Médecine* the following case: The patient, aged sixty-four, had always enjoyed good health up to 1871; then he began to suffer from diabetes, the urine containing fifty-four grammes of sugar per litre. He was treated for this with some success, but in March, 1878, there was still some sugar present in the urine. At this time the patient was much alarmed at the appearance of symmetrical rows of purplish spots, the size of peas, on both feet, especially the right one. This eruption was very tender, and gave great pain not only on walking, but also while resting. The pains on lying down were described as of a lancinating character, similar to an electric shock, equally rapid in their appearance and disappearance. Diabetic gangrene was suspected, and local applications of quinine and arsenic, together with the internal administration of quinine, were made use of. The symptoms, however, grew worse, and the affection progressed rapidly, the skin on the right foot having a macerated appearance. As a last expedient, Dr. Magnin resolved to try local oxygen-baths, without, however, placing much faith in them. They were administered by drawing over the leg and foot a rubber tube, into which the oxygen was conducted. The patient took a bath of half an hour the first day without experiencing any relief. The foot was very red, and perspired abundantly. The treatment was continued for twelve days, after which time all traces of the purplish spots and the pain had entirely disappeared. The patient still suffers from diabetes, but is comparatively healthy and able to attend to his business.—*The London Medical Record*, March 15, 1879.

Idiopathic Gangrenous Cellulitis about the Rectum.—In a clinical lecture delivered in Queen's College, Birmingham, Furneaux Jordan, F.R.C.S., describes a gangrenous affection of the cellular tissue about the rectum of which he has seen several cases. They have all occurred in big, heavy, middle-aged men—men of continual activity and excitable temperament, always walking or travelling, or eating or drinking; in men who combined two bad habits—eating too much and drinking too much; in men sufficiently well-to-do to indulge at will, and who firmly believed that excess of work needed excess of food and liquor; in men who were indifferent to weather, and had been notably exposed to cold and wet. The pale, hard, slightly lobed, extremely prominent swelling projecting between the big buttocks of a big man is not easy to describe. It may begin anywhere in the vicinity of the rectum, around the tube or near the surface; if it begin deeply, it soon comes to the surface; if it begin under the skin, it soon extends deeply. Its deep position is sometimes known by the effects of pressure, as on the sacral plexus. Fever and extreme prostration are present. The progress of

the disease is very rapid. The skin over the swelling, if not cut by the surgeon, quickly melts away, and discloses a mass of dead, black, fœtid tissue, but, as a rule, no suppuration. The slough comes away rather slowly; a cavity, usually of extreme size, is left, which closes tardily, and leaves, curiously, no fistula, as does the ischio-rectal abscess. The gravest feature in the progress of these cases is the great tendency to relapse or extension, or both. Cellulitis, closely followed by gangrene, may suddenly extend, in possibly fatal, and always dangerous, directions. Early and active counter-irritation, and prompt incision of the swelling are recommended.—*The British Medical Journal*, January 18, 1879.

The Pathological Conditions of Albuminuria.—Rumberg has summed up the results of his observations as follows: The transudation of albumen into the urine always takes place in the Malpighian bodies, and is due to an increased permeability of the walls of the convoluted tubes and their epithelial lining. The particles of albumen which are suspended in the blood-serum, and which, under normal conditions, cannot transude through the membranes of the Malpighian bodies, are washed through them, together with the other constituents of the urine, and mix with the latter.

In a healthy kidney this increased permeability is due to a considerable decrease in the difference between the blood-pressure within the Malpighian bodies and the counter-pressure within the urinary tubuli. Here, therefore, the albuminuria would only be accidental or transitory, and may, according to what has been said, be ascribed either to a considerable increase in the pressure in the urinary tubules, or a decrease in the blood-pressure in the Malpighian bodies, or to both causes combined. If the albuminuria should, however, persist, then the increased permeability of the membranes must be ascribed to some degenerative or suppurative change within the convoluted tubes of the Malpighian bodies; here, too, pressure has a marked influence on the permeability of the lining, and consequently on the amount of albumen contained in the urine, in the same way as has been quoted above. Certain kinds of the albuminous bodies, such as egg-albumen and hæmoglobin, are transuded much more easily than serum albumen. If, therefore, these substances have been mixed in some way with the blood-serum, they immediately transude into the urine like dissolving salts, even if the blood-pressure should be normal and the kidneys healthy.—*The London Medical Record*, March 15th.

Trichinous Pork.—H. F. Atwood and W. F. Belfield, M.D., of Chicago, have been making some researches on this subject at the request of the Health Commissioner of that city. One hundred hogs were examined, and of these eight were found infected with varying degrees of intensity. A rat fed on this meat enjoyed the best of health, but, when killed, every muscle was found affected; from this it was deduced that trichinous animals are not generally out of health. Salting and smoking do not destroy the parasite, but sulphurous acid does. This acid readily permeates the entire ham, and is as readily expelled, and, owing to its cheapness, the addition of a sufficient quantity of it to the pickle would add but a trifle to the expense. The injection of a limited number of trichinæ is not followed by unpleasant results, as was proved by Dr. Belfield, who ate a portion of the rat referred to, which was demonstrated, under the microscope, to contain twelve living worms. Twenty-six days later no unusual symptoms had resulted. The only infallible means by which meat inspectors can detect the parasite in a carcass of meat is thought to be the microscope. The animal is destroyed by a temperature below that of boiling water.—*The Physician and Surgeon*, March, 1879.

The Treatment of Ruptured Bladder.—Mr. Heath narrated to the Royal Medical and Chirurgical Society a case from his own practice, in which rupture of the bladder was diagnosticated principally from the tense condition of the abdomen, from the fact that a catheter, on entering the bladder, drew off clear urine, but, on passing further, gave exit to bloody urine, which ebbed and flowed as the patient breathed, and that warm water, injected through the catheter, failed to distend the bladder, and was felt in the groins and abdomen by the patient. The abdomen was opened, and the rent in the bladder closed with a continuous catgut suture. A catheter was tied in, and gave exit to clear urine till the fifth day, when it became bloody, and symptoms of peritonitis developed, the patient dying just six days after the accident. At the post-mortem examination the lower portion of the bladder-wound was found open. Mr. Heath recommended in future cases a trial of catheterism and washing out of the peritoneum as practised by Dr. Thorp, reserving lateral lithotomy for cases in which the rent in the bladder could not be reached with the catheter. Mr. Bryant agreed with Mr. Heath, with regard to the operation of laparotomy, but thought that cystotomy through the perineum, as in lateral lithotomy, should be performed in all cases. Messrs. Marsh, Willett and Holmes were encouraged by the results of the operation of laparotomy, and urged that it should be tested further. The two cases in which it had been tried owed their failure to the giving way of the sutures in the bladder, and could not be quoted against the probable efficacy of the operation. It certainly seemed impossible to Mr. Marsh that clots could be emptied from the peritoneum by washing out the cavity through the bladder, and the importance of completely cleansing the cavity was recognized by every ovariotomist. The mere operation of opening the abdomen would, he was sure, come to be regarded as less and less dangerous. Great importance, however, attached to free drainage.—*The Lancet*, March 1, 1879.

Albuminuria Treated by the Inhalation of Oxygen.—At a meeting, January 8th, of the Société de Thérapeutique, M. Dujardin-Beaumetz read a paper on a case of albuminuria in which the albumen had entirely and rapidly disappeared after some inhalations of oxygen. The patient had reached the last stage of the disease; every diuretic had been employed, but without success, when inhalations of oxygen were resorted to. The albumen disappeared within the next twenty-four hours, and had not reappeared since. Twelve days had elapsed, and the author wished to know if similar cases had been observed before, and if his treatment might be considered as attended by permanent success. In the discussion which followed it was remarked that similar cases had been observed, but the effect of a cure had never been permanent, the albumen generally appearing after two or more months.—*The London Medical Record*, March 15th.

"Drying up" the Milk.—At a meeting of the New York Academy of Medicine nearly all the speakers agreed that the best plan for "drying up" the milk in non-nursing mothers is to let the breasts *entirely alone*; no pumps, ointments, belladonna, or friction, etc.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 3, 1879.

COMPARATIVE PATHOLOGY.

THERE seems to be little doubt that the investigations of diseases are now to be turned in a new direction, and one that has as yet received little attention from modern pathologists. It was not very long ago that we were all carried away by the brilliant studies and apparently conclusive arguments of Liebermeister, who told us that typhoid fever was produced by foul drinking water, and the emanations from sewers and privies. Later English investigations pointed toward milk as the vehicle of the poison, and so to the water used by the milk dealers, which was supposed to have been infected by typhoid excrementitious matters. Still later, milk seemed to have diffused the disease which coincided very remarkably in its area with the distribution of the supply from a particular dealer. This milk, upon close examination, appears to have been uncontaminated with any foreign matter whatsoever, and the question consequently arose, may not the poison have been derived from the cow herself?

Some observers have thought that they could trace scarlatina in a somewhat similar way through milk. In a recent discussion before the Pathological Society of London, the relation between the mammitis or mastitis of cows, known as "garget" or "caked bag," and diphtheria in mankind, was earnestly discussed. Whether or not a causal relation may ever be traced, it seems to be clear that these matters deserve to be looked into by those who are concerned with the investigations of disease, and then there will be no occasion for the criticism launched by the distinguished veterinarian, George Fleming, that "if physicians and surgeons will discuss the diseases of animals, especially in relation to the public health, they should possess some knowledge of these diseases." We must remember that the discovery of the nature of cow-pox, and its capacity for being inoculated in the human subject, has been the means of saving thousands and thousands of lives, and preventing the occurrence of those unsightly blemishes that small-pox leaves. The foot and mouth disease of animals has some important relations to mankind, for it is communicable by milk and produces ulcerations of the mucous membrane and disorders of the intestinal tract. The carbuncular or anthracoid diseases of animals, have also been objects of special interest through the studies of Bouley, Chauveau, Colin, and others, and their relation to malignant pustule in the human species has led to frequent and extended inquiries into the nature of the poisonous element. Indeed, the microphytic germ theory of disease derives much of its strength from the vegetable elements that are alleged to carry the poison of these affections. It is well known that the domestic animals have much the same diseases as man. To enumerate those of a single species, the horse has our ordinary lung and heart diseases, with but comparatively slight differences. He has also various forms of Bright's disease, pyelitis, diabetes, and in nervous affections, cerebro-spinal meningitis, epilepsy, chorea, etc. Besides these he has glanders, charbon, and the like, which are apt to be fatal when communicated to mankind, and should, therefore, be thoroughly understood by human physicians. There are other practical considerations, however, which should lead pathologists to make a study of disease in animals.

Precise notions as to the essential nature of the pleuro-pneumonia of cattle would be of great pecuniary value to the country at large, and might lead to the enactment of such provisions in the different States that the disease would be thoroughly exterminated with the least possible outlay of money. At present it is very desirable to do the work effectively, and it is accomplished by the slaughter of all infected cattle, indemnity of some kind being made to owners. Whether or not this is the cheapest and most effectual plan, for that is the plain issue in this case, is a matter under discussion. At the same time it may be said that, according to the Second Annual Report on Infectious Animal Diseases in Prussia, for the year ending March 31, 1878, the favorable decrease in the extension of this disease finds its explanation in the more exact execution of the law requiring the slaughter of all diseased animals.

But there are other epidemics among animals, notably the swine plague or hog-cholera, whatever its real nature may be. This disease is said, by good authority, to be the most fatal disease that exists among hogs. So important a position has it assumed that the veterinary department of the Privy Council in England has taken special measures to control it. These matters relate to the general sanitary affairs of the country, and we recommend them to the early attention of our National Board of Health, together with the subject of trichinosis, which, according to our continental brothers, exists without much let or hinderance in this

country, and necessarily occasions much annual loss of life. This also brings up another point, which for the student of human pathology is of immense interest. It is the general subject of parasites which have so largely their habitat in animals, and are thence often transferred to mankind. Recent observations seem to point toward important discoveries in this direction. It is a broad field and has as yet yielded no fruits commensurate with its extent. But there is a broader one still and one that is even less known. It is the general comparative pathological anatomy of animals. Much of error that has crept into the conclusions from experiments on animals may be traced to an imperfect knowledge of their ordinary diseases. This applies especially to investigations on the nature of tubercle. Then it is hardly conceivable but that a study of Bright's disease, diabetes in animals, and other affections of vast importance to the human family, should unveil some points of great value in elucidating obscure points in the disease. It is in this way that comparative anatomy has ministered to human anatomy. As the one is higher than the other because it presupposes a knowledge of it, so is comparative pathology the highest of all, as it requires a knowledge of the anatomy of men and animals both in health and disease. John Hunter recognized these bearings, but since his time it would appear that no British student of human medicine has entered the field, and certainly, within our knowledge, no one in this country has made these matters a study. In France, however, according to Fleming, Bouley, Le Blanc, and Colin, take their places as comparative pathologists in the Paris Academy of Medicine. Veterinary science is indeed an attachment to human medicine, and is capable of giving it great and practical assistance. We are, therefore, glad to see that the distinguished Chauveau, of Lyons, director of the veterinary school there, has accepted a chair of comparative pathology at the new university of that city, and more recently, that the University of Pennsylvania, always among the foremost in the cause of medical education, has made a move in the same direction.

MOISTURE AS AN IMPURITY IN AIR.

About three years ago Dr. T. J. Turner of the U. S. Navy, who was then serving on the *Tennessee*, had some trouble which we referred to at the time, with the commanding officer in regard to the hygienic regulations of the ship. Dr. Turner insisted that the constant wetting and holystoning of the berth-deck was injurious to the health of the sailors and was interfering with the recovery of some of his patients. The commander considered the doctor's suggestions presumptuous and ordered the wetting process to go on. Protestations were made, not only in vain, however, but with the result, finally, of stopping altogether the scientific investigations into the quality of the air on ship-board, while Dr. Turner was referred to headquarters on account of his obstinate and unwarrantable interference in the management of the ship's affairs. These events developed into much prominence the stupidity and arrogance which appear to have been the salient traits in the character of the commander. However, after a good many further troubles, Dr. Turner was enabled to continue his investigations, and the results of them have been recently published by the Medical and Surgical Bureau of the Navy Department. The work is entitled "Air and Moisture on Shipboard," and it contains some facts of much interest to landsmen as well as sailors. Some of his principal points deserve summarizing:

I. Four out of 10,000 volumes of the atmosphere is the normal amount of carbonic-acid, and six parts in 10,000 is the limit of impurity that is regarded as safe. This carbonic acid is generally considered a measure of the other impurities in respired air, and especially of organic matter. When the amount of CO_2 reaches seven parts per 10,000, the air acquires a disagreeable odor. In unrespired air, the CO_2 may amount to ten parts per 10,000 without injury, which indicates the prominent part played by the other impurities.

II. Fifty cubic feet of still air are in one minute defiled by one man. This would be very alarming did we not remember that still air is a very rare thing for landsmen to find. Upon half a dozen government vessels, however, which are mentioned, this limit is said to be reached in less than one and a half minutes, and on berth-decks of vessels in commission the air always has carbonic acid in abnormal excess. Thus, on the *Powhattan*, during three months at Norfolk and New York, the CO_2 ranged from 11.8 to 19.6 per 10,000.

III. Moisture increases the amount of CO_2 in the air; it diminishes the exhalation of aqueous vapor from the skin and lungs, limits excretion, and, in consequence, life cannot be prolonged in air saturated with moisture at a temperature of 90° to 100°. In fact, humidity is the most dangerous air agent.

IV. Air should be considered dry or moist in proportion to its removal from saturation. Taking the point of saturation as 100, the average degree of saturation is from 50 to 70, varying with the temperature, the capacity for moisture being doubled for every 27° F. rise.

V. The continual washing and holystoning of the decks add very much to the natural humidity, and consequently to the unhealthiness of the sailors' quarters. To corroborate this, Dr. Turner gives a large number of statistics, showing that ships which have been kept dry have had far less sickness than those in which much wet scrubbing has been done. He recommends, therefore, that all decks below the spar-deck should be lacquered, and should be kept clean with the help of as little water as possible.

The value of Dr. Turner's observations and conclusions lies especially in the prominence which he gives

to moisture as an impurity in air. Although not alone or first in showing the bad effects of this condition, yet he has worked the matter up more exclusively, and brought it forward with more emphasis than is usually done in works on hygiene. If his conclusion is correct in regard to its absolutely fatal influence at a temperature of 90° to 100°, the fact may well be borne in mind, both in general questions of hygiene and in applying the now popular method of keeping patients with croup, etc., in a cloud of steam for considerable periods of time.

In regard to moisture on shipboard we are inclined to think that the doctor lays too much stress upon its special importance. Certainly his statistics are not sufficient to demonstrate the uniform and inevitable noxiousness of aqueous vapor. Many long voyages have occurred in which there was plenty of wet scrubbing, and no great amount of sickness. He has proved, however, that moisture is an agent which may do much harm, and poor Jack should be given the benefit of whatever increased healthfulness a drier berth-deck will afford him.

CREMATION SOCIETIES.

Following upon the popularity of cremation in Holland, and the governmental approval of it in Switzerland and other places, efforts are making in London to have a cremation society incorporated there. These attempts have called out some adverse criticisms from *The Lancet*. That journal appears to be considerably alarmed at the possible introduction of the new mortuary ceremony and it ends a fine antithesis with the appalling, though somewhat redundant announcement that "cremation will destroy the safeguards of public security." It would certainly be very unpleasant to have the "safeguards of our security" taken from us, but we hope the imminent peril is a little exaggerated. The means in which cremation will thus impair and perhaps entirely incinerate the foundations of society is this: the bodies of those who have been poisoned, or have died a violent death, being entirely destroyed, there will be lost with them strong evidences perhaps against the criminal parties. With the opportunity therefore of thus forever hiding in the flames of a reverbatory furnace the witness of their guilt, murder is expected to stalk abroad and the red right hand of Rapine flourish uncontrolled.

Now this danger has been considered by the authorities which have already incorporated cremation societies. That at Zurich, for instance, is obliged "to have the body carefully examined by the district physician and to have an autopsy made as a rule, in order to exclude the possibility of violent death." Regulations of this kind will reduce the danger of unappeased justice to a minimum, or exclude it altogether. For, be it remembered, the argument now concerns only the incorporation of a society. The general introduction of cremation is at present entirely impracticable and need not be discussed.

But *The Lancet* further argues against cremation on the ground that the asserted dangers to wells, etc., from country and suburban churchyards are not very great and can be more easily avoided in other ways than by cremation. The way suggested is to have the wells dug deeper, and it is asserted that the people could have good water if they would only take the trouble to thus deepen their sources of supply. Such a plan does not offer a practical remedy in this country at least. The depth of country wells here is from fifteen to twenty feet; if they were sunk a hundred feet deeper we doubt if the percolations of a graveyard would be any more sweet. There are few towns where Artesian wells can be dug.

While thus criticizing these arguments against cremation we do not assert that it, at present, should be the general mode of disposing of the dead. It is an undoubted fact, however, that to burn the body is the best way to treat it, from a sanitary point of view, and it is a process that need not offend either the religious or the æsthetic sense. Furthermore, it must be admitted that in the present burial system there is a positive danger to the health of the community, and there may be also, we are obliged to add, injury to the feelings of the friends through the now popular occupation of body-snatching. Thus, though cremation may not be a necessity at present, we may be forced to it as communities become more and more overcrowded. And if there are persons who wish to have themselves incinerated, the authorities should by all means allow them to have it done. Certainly no one need be alarmed by the phantoms that are afflicting the imagination of our English brethren.

Reports of Societies.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, April 7, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

NEURITIS ASCENDENS, WITH SECONDARY CHANGES IN THE SPINAL CORD.

DR. V. P. GIBNEY reported a case of neuritis ascendens, with secondary changes in the cord, occurring in a man æt. 35 years. His family history was unimportant. He was married; was the father of healthy children; had never had syphilis; and his habits were good. During the war of the Rebellion he contracted dysentery, which had recurred at intervals of a few months ever since. The patient was anæmic and somewhat emaciated, when a boil appeared in the region of the olecranon. A second boil appeared upon the posterior part of the elbow. A month later a feeling of numbness was developed, affecting the entire posterior surface of the forearm, and there was notable anæsthesia in the line of the ulnar nerve. A detailed account was given of the clinical history of the case, accom-

panied by remarks regarding its bearing upon the question of reflex paralysis, neuritis migrans, and neuritis ascendens. The case was regarded as one in which the internal and the external cutaneous and other nerves were primarily affected by extensive inflammation from a boil upon the elbow. The musculo-spiral, the brachial and the occipitalis minor nerves became involved. Dr. Gibney believed the case demonstrated that ascending neuritis was capable of developing secondary inflammatory changes in the cord by means of simple extension of the process *per continuitatem*.

Dr. E. C. Seguin remarked that the subject of ascending neuritis had received but little attention, and for that reason the case reported by Dr. Gibney was an important one, although the positive demonstration of changes in the spinal cord was wanting. He then referred to a case which Dr. Weber, of Boston, had placed upon record, in which the demonstration was complete, as microscopical examination of the spinal cord had shown. He also referred to a case of his own in which the brachial plexus was removed by operation for the relief of pain incident to the development of neuromata, secondary to amputation of the arm. In the portion near the scaleni muscles there were evidences of chronic hyperplastic neuritis, and in the other portions evidences of Wallerian degeneration. It had also been demonstrated by Dr. Gull that in cases of numbness and paraplegia following vesical disease the lesion did not follow the nerves, but that the myelitis was produced through phlebitis.

APHASIA DUE TO THROMBOSIS OF SMALL TWIGS SUPPLYING THE SPEECH REGION.

Dr. Putnam-Jacobi presented a patient with the following history. A remarkably healthy-looking boy, four or five years old, who had not had any sickness during his life, began to exhibit, in the latter part of February, some change in his mental condition. He first began to say curious phrases, soon began to run about in a wild manner, gradually spoke less and less, and at the end of a week ceased to say anything. With the loss of speech there was soon loss of power to make signs or gestures. He amused himself quietly alone. He did not cry aloud. There was no fever, vomiting, or convulsions. His hearing seemed perfectly good, as well as his other special senses. He did not seem to recognize the meaning of words, yet gave a nod of acceptance when certain articles were exhibited, as an apple, or a piece of cake, while he made no expression whatever when certain other articles, such as money, were shown, although previously he had been very fond of handling coins.

The temperature of his head was as follows:

Left frontal region, 95° F.; right, 94° F.

Left parietal region, 93½° F.; right, 94$\frac{5}{6}$° F.

Left occipital region, 96° F.; right, 93$\frac{5}{10}$° F.

Left vertical region, 92½° F.; right, 93½° F.

The temperature of the mouth was normal.

A diagnosis of aphasia due to thrombosis of small twigs supplying the speech region was made, and the patient was put upon iodide of potassium, in five-grain doses, three times a day. He first came under the doctor's observation March 7th. On March 12th he spoke for the first time, and said, "Stop that." A few days after he again ran about in a very wild manner. On the 20th of March he spoke several words, and at about the same time had an attack of crying. On the 27th of March he sang a little, and on the 28th he seemed to understand something said to him, and since that date his condition had remained nearly unchanged.

Dr E. C. Spitzka remarked that the patient was one whom he had seen a little time before he came under the observation of Dr. Jacobi, and at that time the child was cachectic, there had been classical strabismus, a febrile movement in the evening, and distinct hallucinations of sight. He had entered the case upon the books as a mild one of *tubercular meningitis*. He could hardly understand how a gradual occlusion of small vessels in the speech region could occur except by tubercular process, as he thought it could be safely said that no other specific taint was present.

Dr. Jacobi remarked that she had been unable to obtain any history of febrile movement, and the absence of fever was one reason why she had excluded meningitis.

Dr. Spitzka had therefore elicited symptoms which she had been unable to obtain.

Dr. E. C. Seguin remarked that in the absence of grave symptoms—such as hemiplegia, tendency to coma, and the more serious results of occlusion of blood-vessels in the brain—he was not quite prepared to accept the diagnosis made by Dr. Jacobi. He further referred to a case which in some respects was similar to the one presented, namely, one in which there were alternations of violent mania and melancholia. During the melancholic periods the child was absolutely mute.

Dr. Hammond remarked that a similar case came under his observation some six or eight years ago, in which there was no indication whatever of paralysis. The aphasia was of about the same character as in the case presented. He regarded it as a functional affection. All efforts to cure the child proved ineffectual. Believing it to be reflex in character, he resolved to make an experiment, and treated the patient for worms. A large number of worms were expelled, and as soon as gotten rid of the child was well. He regarded the present case as functional in character, and thought the child would ultimately entirely recover.

Dr. Jacobi remarked that in her case the mutism coincided with the periods of excitement.

Dr. Spitzka remarked that the rosy appearance of the patient did not exclude the presence of tubercular meningitis. He had not been able to elicit any history of malarial poisoning.

PATHOLOGICAL ANATOMY OF TETANUS.

Dr. R. W. Amidon read a paper upon the above subject, in which he gave an account of the microscopic changes which had occurred in the spinal cord of a man who had died of tetanus following compound fracture of the radius. The pia-mater was thickened, and contained a great number of very large cells—some fusiform, some multipolar, and some contained large nuclei. There were in the cord dark granular spindle-shaped cells, which were unaffected by carmine. There were hyperæmia and thrombosis. There were cavities of various sizes in the nerve matter. The central canal was stuffed with epithelium. The changes were from simple vascular engorgement to disintegration, and affected the roots of the spinal accessory, trigeminus, facial, hypoglossal, and glosso-pharyngeal.

Dr. Spitzka discussed the paper, and remarked that he believed the lesions described were secondary and not essential.

Dr. Amidon remarked that the significance of the lesions did not consist in the changes that had taken place so much as in the fact that they were confined to one locality.

MYSOPHOBIA.

Dr. W. A. Hammond read a paper upon the above subject, in which he described a form of mental derangement that consisted in a *fear of defilement or contamination.* Ten cases had fallen under his observation, but not fully recognizing the exact nature of the earlier ones, he based his paper upon the complete clinical histories of the last three. In the first case described there was an overpowering desire to wash the hands, and in that occupation the patient spent a large share of her time. The fear of becoming contaminated gave her the most intense mental anxiety, suffering and distress; and although she was able to recognize the absurdity in her case, yet during her waking hours she was haunted and followed by what was to her a most terribly distressing fear.

In the second case the fear of pollution was more extended and serious, and the patient washed her hands as many as two hundred times a day.

The third case was equally well defined, but not so severe. When the patient visited the doctor's office she could not be induced to touch the door-knob when she was ready to leave the consultation-room, because of the tormenting and distressing fear of becoming contaminated, which held her in its complete possession. The treatment which he had exhibited had been to keep the bowels quite soluble by means of pills composed of podophyllin, aloes, and ox-gall; to administer bromide of potassium, sodium, or calcium, and in combination with opium if there was a tendency to melancholia; and to use tonics—such as cod-liver oil, strychnia, iron, and quinine.

Dr. E. C. Seguin referred to a case in which the patient suffered through fear of croton bugs. The fear followed her, and she saw the bugs when it was well established that there were none present. She was cured by moral treatment and by tonics.

Dr. Spitzka spoke of phobia as a symptom which complicated different conditions, and

Dr. Kiernan mentioned cases of chronic mania in which he had seen similar symptoms.

Dr. Hammond remarked that the cases which he had reported, and to which he referred, were not cases of insanity, for they had neither hallucinations nor delusions.

The Society then went into Executive Session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Thursday Evening, April 3, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

After the reading and adoption of the minutes of the preceding meeting, Dr. E. H. Janes, of the Committee on Admissions, reported favorably on the names of the following gentlemen, who were afterward duly elected Fellows of the Academy: Charles Miller, George T. Harrison, Samuel Sexton, David Webster, Frederick A. Castle, Henry F. Garrigues, of Brooklyn, Alexander J. C. Skene, of Brooklyn, George B. Hickock, Thomas Kellogg, John T. Darby, and E. G. Janeway.

In the absence of the Librarian, Dr. Laurence Johnson, the Secretary, Dr. Hanks, announced for him that since his last report the Academy had received, as donations, 34 bound volumes, 38 pamphlets, 2 framed portraits, and a number of medical journals. Among the donors were mentioned the names of Drs. J. G. Adams, Albert H. Buck, Edward H. Peaslee, Austin Flint, Sr., S. S. Purple, Fordyce Barker, and H. B. Sands.

The Corresponding Secretary, Dr. Adams, after making a brief report, announced the death of one of the Honorary Fellows of the Academy, Dr. George B. Wood, of Philadelphia, and read a sketch of his life and services, in the course of which he alluded to his long and distinguished career as a physician, and as Professor of the Philadelphia College of Pharmacy and the Medical Department of the University of Pennsylvania, his voluminous writings, both medical and historical, and their high reputation, and his generous endowment of five chairs in what is known as the "Auxiliary Faculty of Medicine," in his *Alma Mater.* It was stated that the great work on materia medica and therapeutics, entitled "The United States Dispensatory," and originally published in 1832, in which he was associated with Dr. Bache (but the greater part of which was written by himself), passed through fourteen large editions, and reached a sale of no less than 130,000 volumes; while his work on the Practice of Medicine, in 2 volumes octavo, published in 1856, passed through six editions. In 1871 he was elected an Honorary Fellow of the New York Academy of Medicine. He was, said Dr. Adams, emphatically a leader among medical men, and few have ever filled so large a sphere of usefulness or attained so high a position in the profession.

After a report from the Section of Obstetrics, Dr. Salvatore Caro, chairman, the Secretary read the details of a plan proposed by a special committee of the council, and recommended by the council in general, for the compounding of annual dues. It provided that any Fellow of the Academy in regular standing, who had attained the age of 30 years, might compound for all future annual dues by the payment of $150; one who had attained the age of 35 years, by the payment of $145; one who had attained the age of 40 years, by the payment of $135; one who had attained the age of 45 years, by the payment of $125; one who had attained the age of 50 years, by the payment of $115; one who had attained the age of 55 years, by the payment of $105; one who had attained the age of 60 years, by the payment of $95; one who had attained the age of 65 years, by the payment of $80; and one who had attained the age of 70 years, by the payment of $55. Under the rules, the matter was laid on the table for one month.

The paper of the evening was then read by Dr. James R. Leaming, on

A NEW CLASSIFICATION OF PULMONARY PHTHISIS, WITH PRACTICAL CONSIDERATIONS.

The tendency of the present time, he said, was to rearrange, classify, and describe, with more detail, the various affections met with in the practice of medicine. As an instance of the advantage of this he cited the case of the so-called typhoid diseases, such as typhoid, typhus, and typho-malarial fevers, which were formerly considered but a single affection (this even being a decided advance over the extreme confusion that had previously prevailed) and were afterwards described, by Murchison and others, each as a distinct disorder, differing from the others of the group in its etiology, lesions, clinical history, and duration. That which had been so successfully accomplished in this class of affections remained to be done for the various forms of disease now known under the general name of pulmonary phthisis. He then quoted Sydenham's graphic delineation of the clinical characteristics of consumption, and remarked how little had been added to this description written two hun-

dred years ago! Laennec believed that, with scarcely an exception, all cases of phthisis were of a tuberculous character; while Broussais inclined to the idea of the ancients, that they were of an inflammatory nature. Laennec was deserving of all praise for his distinguished services, but, unfortunately, his well-earned fame had been instrumental in carrying some grave errors down to the present time. The more modern pathologists (particularly the Germans) had demonstrated that there were other forms of phthisis besides the purely tubercular, and their views had been adopted by many English and American authorities. Dr. Andrew Clark, in a lecture delivered at the Bellevue Hospital Medical College and reported in the New York Medical Record of December 14th and 21st, 1878, divided pulmonary phthisis into three natural classes, and Dr. Leaming stated that he accepted his classification in part. The tuberculous and fibroid forms he regarded as not only distinct, but essentially opposite diseases, although they sometimes coexisted, and thus produced peculiar results. The classification which he had himself adopted, and which he now proposed to set forth, was founded both on clinical and *post-mortem* investigation. There were two principal forms of phthisis, he said, the tuberculous and the fibroid varieties. Under each class he enumerated two subdivisions, as follows:

I. Tubercular Phthisis.

(1.) *Uncomplicated tubercular lung.*

(2.) *Tubercular lung with fibroid pleura.*

II. Fibroid Phthisis.

(1.) *Fibroid lung and fibroid pleura.*

(2.) *Fibroid lung and pleura, complicated with tubercle.*

UNCOMPLICATED TUBERCULAR LUNG

he believed to be a very rare condition. He had distinct recollections of but three cases of it, and no notes upon them. Louis had said that nothing was so frequent as adhesions of the lungs to the pleura, and out of one hundred and twelve cases, in only two were the lungs free from adhesions throughout their whole extent. In that form of phthisis the early history was very apt to be obscure, and the diagnosis difficult. Often the first sign only made its appearance after a cavity had been formed. It generally occurred in early adult life, and in those who had been living on poor food or surrounded by unwholesome sanitary conditions. In the early stage, when careful auscultation was made, a deficiency in the respiratory murmur, with slightly raised pitch, could be detected; but no râles. Neither was there any cough. When the tuberculous nodules softened, we had cough, expectoration, hectic, and all the well-known rational signs of phthisis. Then it was that fatal hemorrhage might occur from erosion of arteries.

When a cavity had been formed, the physical signs denoting its presence were not so plain as in fibroid phthisis, because the healthy lung tissue by which it was ordinarily surrounded was not a good conductor of sound. Wasting of the body commenced with the formation of cavities; and the case might end in general tuberculosis.

As to the treatment, that was of the greatest service which acted in the way of prevention. Chloride of ammonium was both a preventive and a curative agent; and cod-liver oil, quinine, the various other tonics, and change of scene and air, might all prove useful. If the heart's action was feeble and irregular, digitalis should be given, and atropia should be used to control night-sweats. In the way of local measures, strapping with adhesive strips were of service, and small blisters might assist nature by inducing adhesions. If forced expansion was made when there were newly formed cavities, there was great danger of pneumorrhagia. Fatal hemorrhage rarely occurred after a cavity was a week old.

TUBERCULAR LUNG WITH FIBROID PLEURA.

In the second subdivision of Dr. Leaming we had tubercular concretions following fibroid in the pleura. In that there was a greater liability to fatal hemorrhage than in the other. The arteries seemed to be more easily eroded, and when the hemorrhage (which was apt to occur early in the disease) came it was almost always a surprise to the physician, as well as to the patient and his friends. The first indication of danger was the filling up of the nose and mouth with frothy blood, and the patient was literally drowned before anything could be done to relieve him. Another accident which might occur (and which was also liable in the first variety) was the causation of hydro-pneumothorax by an opening being formed into the pleural cavity as the result of the softening of a tubercular concretion. That gave rise to a great amount of pain and dyspnœa; and death was pretty sure to occur after a longer or shorter period. Recovery was rare after this condition has occurred. The diagnosis was sufficiently easy, and the indications in the treatment were to secure perfect rest (which could best be accomplished by strapping the chest), relieve pain, and control inflammatory action.

FIBROID LUNG AND FIBROID PLEURA.

In the first subdivision of the second class we had fibroid lung with fibroid pleura. Here was something, said Dr. Leaming, quite opposite to the tubercular process. That was really a destruction of tissue, while that was merely a destruction of function. It differed from the tubercular variety of disease also in being much more amenable to treatment.

The writer was of the opinion that nine-tenths of all cases of phthisis commenced with interpleural plastic exudation. Hence, the early recognition and treatment of that condition were of vital importance, and he believed that the day was not far distant when (on account of the more general adoption of that view) the mortality from phthisis would be much less than now.

In that class the disease always originated in fibrination of the pleura. That was the local starting-point; but there was always a predisposing cause in some depression of the vital force which might be due to various circumstances. Thus, any individual who had long been attendant upon the sick, the student unsuccessful in passing his examinations, the man of business perplexed with unusual care, the disappointed lover, the defeated soldier, were all peculiarly liable to be attacked with fibroid phthisis. In like manner, syphilis, masturbation, the sequelæ of the various exanthemata, and similar depressing influences were prolific in its causation. The interpleural exudation, said Dr. Leaming, was a makeshift of nature, and it was often immediately re-absorbed. If it was not re-absorbed, however, it underwent organization and increased in extent; the result being that the pleura was pressed firmly down upon the air-sacs beneath.

The writer then went on to describe at some length the peculiar anatomical characters of the nutrient arteries of the lung, which, he believed, played a very important part in the history of fibroid phthisis, and

also satisfactorily explained some phenomena which would otherwise remain complete mysteries.

As fibrination went on, he continued, the patient gradually yielded before it. The outward form of the chest became more or less contracted and altered in shape, and the sufferer was obliged to stoop forward to prevent the racking cough that was so troublesome. Like some strong anaconda, the fibroid process was winding its ever-tightening coils about him.

Thus far the trouble had been confined entirely to the pleura; but in the second stage of the disease the fibrous bands extended down through the lungs themselves, and also involved the heart. Often a loud systolic murmur was thus occasioned.

The early physical signs were the same in each variety. Their distinguishing characteristic was soft tearing râles, which it required a somewhat practised ear to separate from the ordinary respiratory murmur beneath. When such signs could be made out, however, two facts were certain, viz., that there was plastic exudation in the pleura, and that the lungs were free. At the later stage of the process the râles were dry and crackling, and there was no trouble about making them out.

The treatment was simple and easy enough at the beginning of the trouble; but the longer the process went on the more difficult it became. Even if the exudation had existed for several weeks, however, the disease might be cured. Perhaps the most useful of all remedies here was the chloride of ammonium, which should be given in doses of from six to ten grains every waking hour. In addition, the patient should be surrounded by the best hygienic conditions, walk out in the country as much as possible, take deep and long inspirations to expand the chest, and live to a great extent on a milk diet. If these measures were unsuccessful, the bichloride of mercury in small doses should be tried, and Dr. Leaming believed that it acted as a tonic, as well as an alterant and solvent of adhesions. Some cases would not yield even to that, and then he advised the administration of mercurials to the point of salivation; which he thought had saved the life of the patient in a number of instances in his hands. In addition, small blisters would usually be of service; and, above all, chest-expansion should never be neglected. One of the best means of securing that, he believed, was to ride a fast-walking horse. Care must be observed, however, not to do violence to the adhesions that had formed by taking too active exercise. When from that cause, or as the result of any accident, pulmonary apoplexy ensued, complete rest should be enjoined, and the chest strapped with adhesive plaster. The advantages of climate and change of scene were also dwelt upon.

FIBROID LUNG AND PLEURA, COMPLICATED WITH TUBERCLE.

In the second subdivision of the second class were found the greater proportion of all patients suffering from phthisis. That form he believed to be also essentially fibroid; the tubercular element being a secondary phenomenon.

Niemeyer, said Dr. Leaming, made the statement that the greatest danger to be apprehended in catarrhal pneumonia was that it might become tubercular. We would say rather that that was the greatest danger to be apprehended in fibroid phthisis. As the result of that condition, the well-known symptoms of phthisis were noted—such as cough, chills, fever, night-sweats, wasting, etc.—and at length the characteristic expectoration announced the formation of a cavity. The physical signs were always very distinct here, on account of the fibroid tissue in the lung and the hardened condition of the pleura. When the cavity had been formed, perhaps the patient might begin to sleep well, have an increased appetite, and feel better in every way; but there was seldom complete relief, and even if there was it was usually of short duration, for there were apt to be other tuberculous concretions undergoing softening at the same time.

Cavities in the lung, however, were not always of tubercular origin, as they might be due to fibroid disease, gangrene, etc., and might also be of traumatic origin. But to whatever causes it might be due the formation of a cavity in a fibroid lung was always of grave import, because it was so liable to become tubercular.

The treatment of that variety must consist in a judicious combination of that previously given for the fibroid and tubercular forms of phthisis. When the tubercular element had not already supervened, one supreme effort must be to prevent that complication. If, however, there were tubercular concretions, we must direct our attention towards preventing the extension of either form of disease. To that end the application of small blisters, and the confining of the patient to an exclusively milk diet for a time, were frequently of great service. Whenever fibroid phthisis was present we must endeavor to invigorate the vital powers, and Dr. Leaming, as before mentioned, fully believed in the tonic effect of mercury, as well as in its usefulness in carrying off effete products from the system. Of course caution must be observed in its use, but we need not deprive ourselves of its invaluable aid on that account. What would be thought, said he, of a surgeon who was afraid of a sharp knife?

The President, in announcing that the paper was now before the Academy, remarked that it showed great evidence of profound study and thought, as well as careful clinical observation, and that he hoped that the novel pathological and therapeutical views which it contained would elicit a full discussion on the part of the Fellows present. He would call first, therefore, on Prof. Flint.

Dr. Flint said that before coming to the meeting he was not aware what line of remark the paper would take. As the Chair had stated, the classification was a novel one, and he thought that a certain amount of study upon it would be necessary before one could intelligently adopt it. At present he was not prepared either to take issue with the writer or to accept his opinions. He recognized in Dr. Leaming a very zealous worker; but there was one pathological condition underlying his views, which, he must say, he believed to be erroneous, and that was the relations of pleurisy to phthisis. It had always seemed to him that the pleuritic disease met with in these cases was secondary to the pulmonary; while the writer regarded the pleuritic trouble as primary.

The classification of phthisis was a large subject, but he proposed to make but a very few remarks upon it on this occasion. Acute tuberculosis, he thought, must necessarily be considered as a distinct affection. So the purely fibroid variety of phthisis could be readily distinguished from other forms. Then there remained those cases of chronic lung-trouble, in which each of these elements seemed to enter to some extent; and it was difficult to know how to designate them.

The point at issue was, whether true miliary tubercles were present, and what was their relation to cases of chronic phthisis characterized by softening of the lung-tissue, the formation of cavities, etc. The views held as to this relation must, therefore, govern,

to a great extent, our adoption of any classification. At present he did not feel that he could conscientiously commit himself to any definite opinion in regard to the matter; and he was content to wait until further research should perhaps decide it. Such studies were to be based both on histological data and clinical data; but he believed the latter to be of really the most value.

Dr. Loomis thought that the paper deserved careful consideration, and that the views which it advanced should be discussed from different standpoints. Any satisfactory classification, he believed, should be based on three things: *first*, etiology; *second*, morbid anatomy; and *third*, clinical history; and it seemed to him very difficult to make such a classification in which these various points would not clash. The reason was, that the opinions of the scientific world as to some of the most prominent and constant histological changes observed in phthisis were not yet settled. If he understood Dr. Leaming properly, he took issue with the ordinary view that phthisis originated in the lung-tissue, and held that the primary changes in the disease occurred in the pleura instead. He did not understand, however, exactly what the writer meant by the term "fibrination," or the expression "plastic exudation undergoing organization." If we were satisfied in regard to any pathological facts, it was that all plastic material underwent absorption, and that the later changes observed, such as adhesions, fibrous bands, etc., were the result of a hyperplasia, or increase in connective tissue in the pleura, the pericardium or the peritoneum. At length, contractions took place in this tissue, and thus, when occurring in the pleura, they interfered more or less with the circulation and nutrition of the surface of the lung beneath. If Dr. Leaming were correct in his opinion, very great pathological changes must necessarily take place in the pleura before they were discoverable; for in a large proportion of cases important changes could be detected in the lung long before there was any evidence whatever of trouble in the pleura. It was a difficult question to decide where the primary trouble originated, because the *post-mortem* examinations necessary to settle it must be made at a very early stage of the disease. Where autopsies were made in the advanced stages it was rather an assumption to say where the difficulty commenced. Auscultatory evidence, he thought, would not answer, because good diagnosticians differed utterly as to the significance of various signs met with in the chest. Personally he believed in three forms of phthisis, as described by Dr. Andrew Clark in his lecture; although this classification had been known to New York long before the visit of that distinguished physician. He could satisfy himself better with that division than any other; but he certainly was not bigoted in his views, and was still open to conviction.

Dr. E. Darwin Hudson, Jr., believed that pleurisy was one, at least, of the causes of phthisis. Every student, he said, must notice the occurrence of pleuritic adhesions, not merely in connection with the later, but also the early stages of phthisis. We were taught that in inflammation of the pleura the serous membrane became denuded of its epithelium, and then assumed a villous condition, when adhesions were apt to be formed. He believed that if adhesions were present to such an extent as to cause more or less contraction of the chest there would be definite and significant physical signs present, as had long since been recognized by Dr. Leaming. The latter was of the opinion that in a large majority of cases of phthisis interpleural plastic exudation was the commencement of the trouble, and that when that was present it could always be detected by a soft subcrepitant râle heard directly under the ear, and comparable to the sound produced by the tearing of wet cloth. He had also the authority of Rindfleisch for saying that no case of pleurisy ever occurred without a certain number of the air-sacs of the lung beneath becoming consolidated.

Dr. E. G. Janeway was the last speaker. He remarked that the question as to how far pleurisy could originate tuberculosis must be looked at in two ways. He had sometimes seen cases in which acute disseminated tubercle undoubtedly resulted from pleurisy, by septic infection: a process which it was difficult to explain. He could recall two instances in which, when there was no trouble whatever in the lung, there had been a sudden eruption of tubercle throughout the body; but at the same time he did not believe that phthisis ordinarily was to be ascribed to pleurisy. On the contrary, he considered that autopsies every day showed that when trouble both in the lung and pleura were found, that in the lung was undoubtedly the older of the two. That was evident, he contended, in those portions where the process was most recent. To his mind, therefore, it seemed plain that we could not, in the majority of instances at all events, attribute the phthisis to interpleural exudation.

As to pure fibroid of the lung, he was of the opinion that it was very rarely met with. If by the term fibroid, however, was meant a thickening of connective tissue associated with the presence of lymphoid cells, that was a much more common condition. Pathologists were by no means agreed as to what tubercle really was, and hence a great confusion of terms had arisen; but there now seemed to be a gravitation of current opinion towards the view that tubercle was of more frequent occurrence than was for a time supposed. In the last edition of Niemeyer's work a considerable modification of the views expressed by that writer was noticeable, and Rindfleisch had gone further back towards the old ideas than any other authority. There was a growing appreciation at the present time of the necessity for the consideration of constitutional tendencies; and it seemed demonstrable that there was ordinarily more of tubercle in phthisical lungs than Virchow formerly taught. Even Virchow, he imagined, was returning, to some extent, to the adoption of views that had once been discarded.

Correspondence.

PROFESSIONAL ADVERTISING IN THE DAILY PRESS.

To the Editor of The Medical Record.

Dear Sir:—Your correspondent, "Sic Nos," etc., has done the profession a service in calling attention to an abuse that appears to be rapidly extending. Hardly a week passes but one of the metropolitan journals contains a flattering notice of some favored member of the profession, and one journal in particular appears to have taken special pains to keep before the public the name of a prominent specialist in connection with certain "Talks to Young Men," etc. Just before reading the letter of "Sic Nos" in to-day's issue of the Record, I found in the *New York Times*

a notice, nearly a column in length, of a new medical journal, "Edited by Dr. E. C. Seguin." The notice commences: "This is a new medical journal, and having a man so distinguished as Dr. Seguin for an editor," etc. Farther on we read: "This brings us to the editorial department of the journal, in which we find, first, some valuable matter by the editor on diseases pertaining to the nervous system, *for whose treatment he is particularly celebrated*," etc. (italics our own). Now, sir, where is this thing to stop, and where is the line to be drawn? Have we still a committee of ethics, or did it go out of existence with the subsidence of the mineral-water excitement that called it into being? If that committee is dead, we think that an end can be put to this sort of thing if you will give the different gentlemen concerned a little additional gratuitous advertising by transferring to your columns the public press notices as they from time to time appear, and we trust that those who have the real welfare of the profession at heart will take the trouble to send you such clippings as fall under their eye.

NONNE?

MEDICAL REPORTS IN NEWSPAPERS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The exceedingly incorrect report of my clinic which appeared in *The World* of April 18th, seemed to me to carry sufficient evidence on its face that I had nothing whatever to do with its production. But it seems I was mistaken, and that there are some over-sensitive, virtuous souls in a "state of mind" over this so-called breach of the code of ethics. Hence I desire to state most emphatically that I am utterly opposed to the publication of lectures and operations in the secular journals, as being calculated to lower the dignity of the profession, to bring it into disrepute, and to place the individual so advertised in the ranks of designing quacks.

The "crowd of spectators" present was simply a large assemblage of medical students from the city colleges, together with the nurses belonging to the Charity Hospital training-school. I invited no one who was not a practitioner of medicine to witness the operation. I had no idea that a word I said would ever appear in a public journal. I did not know that a reporter was in the building, or that any one was taking notes. *No friend* of mine had anything whatever to do with it. In short, I am not responsible for the report, directly or indirectly, in any shape or form.

Yours respectfully,

JOSEPH W. HOWE, M.D.

38 W. 24th STREET.

HOMŒOPATHIC CONFECTIONERY.—In some parts of Germany physicians are not permitted to dispense medicines, when there is an apothecary in the place to do it for them. We learn from the *Allg. Hom. Zeit.* that three homœopathic physicians were practising in Regensburg, when an apothecary of the same belief came among them and notified them to send their prescriptions to him. Two of them refused, and were brought before the court and fined about five dollars. The case was carried to a higher court, and the medicines (pellets) sent to the University of Erlangen for chemical analysis. The chemists of the university failed to find anything in them of a medicinal or poisonous nature, and so reported; whereupon the judge reversed the decision of the lower court, and declared that there was no law that prevented physicians from distributing sugar-plums (*Zuckerwaaren*) as freely as they chose.

New Instruments.

ON THE TREATMENT OF URETHRAL STRICTURE, WITH DESCRIPTION OF A NEW DILATOR.

BY GEO. M. SCHWEIG, M.D.,

NEW YORK.

THE literature on the subject of treatment of stricture of the urethra is so copious, the supporters of the various "radical cure" methods are apparently so sincere in their convictions and convincing in their arguments, that it is saddening to realize that they cannot *all* be right, and that the statistics of those who are wrong, though comprising innumerable cases, must of necessity be unreliable and deceptive. Until, therefore, discussion on the subject shall have finally ceased, and the matter settled beyond dispute, it behooves the practitioner to select the method that after a careful study of the subject may to him individually appear the most rational. Acting on this principle, I have always held that dilatation *carried to a sufficient extent*, is not only the *safest* method of treating the great bulk of cases of organic stricture, but the one which is at the same time the most likely to secure *radical and permanent results*. It were needless here to enter into an analysis of the reasons that led to my conclusions on the subject. I will only state, as a matter of justice, that the writings of Dr. Dittel, of Vienna, have been chiefly instrumental in originally shaping my views.

In endeavoring to put into practice the theories I adopted, I very soon realized the want of a *perfect* dilator for the urethra, and this want furnished a ready apology for the urethrotomist, in the impossibility to do full justice to dilatation. Far from discouraging me, the difficulties I encountered rather stimulated me to endeavor to surmount them. Whether I have succeeded must be for others to judge.

In devising an instrument that should meet fully the requirements of the surgeon, my ideal was: "(1) efficiency, combined with (2) perfect safety." Under the first head I claim for my dilator that it has the widest scope as such, being suitable alike for slow and gradual as well as rapid dilatation or over-distention (divulsion). Under the second, that its employment as a dilator is followed by no more reaction than that of an ordinary sound. This will become self-evident from the description to follow, which will also make apparent the absence of characteristics that rendered the employment of other dilators either dangerous or inefficient, or both. I am indebted to Messrs. Geo. Tiemann & Co. for their kind and ready aid through a long course of wearisome experimenting to the final completion of the instrument.

The accompanying woodcut shows in Fig. 1 the dilator closed; in Fig. 2 the dilator open. *A* (Fig. 1) shows the shaft of the instrument. As this is not intended to enter the bladder, it has not the curve of the ordinary sound. To facilitate introduction, however, its (conical) point has a modification of Mercier's curve. The length of the entire shaft is about twenty centimetres, but can be made any desired length. It is graduated in half inches, the measurement beginning at the centre of the *dilating wedge* (*b*). It is hollow, and contains the rod and levers that force out the dilating wedge.

This last (*b*) is three and a half to four centimetres

in length, and of a width equal to the diameter of the shaft, thus offering a *broad* dilating surface. It is enclosed on all sides except the one facing the interior of the shaft, or, in other words, on every side that protrudes into the urethra when the instrument is being used. It thus presents a smooth, solid, continuous surface to the urethra when protruded, leaving nowhere a crevice or opening for the engagement of any mucous membrane. When the instrument is closed, the wedge does not project, but is level with the shaft. It is forced out by two levers attached to a rod, which runs the length of the shaft, and is in turn attached to the screw-wheel (*d*), by means of which the instrument is worked. I had two levers made, one at each end of the wedge, rather than only one, thus insuring steadiness and parallelism to the wedge. At *e* there is an index (French scale) that shows the degree of dilatation at every stage of the operation; *c c* are ring handles to steady the instrument and keep it in place.

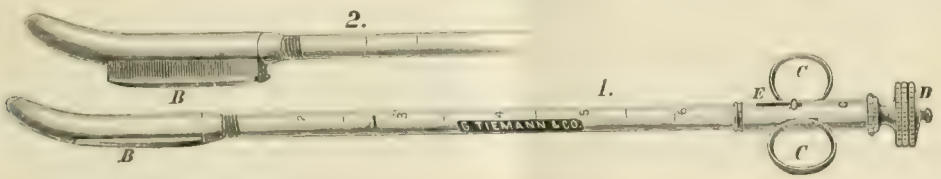
The instrument can be made of any required calibre. It must be remembered, however, that the degree of dilatation attainable is in direct ratio to the size of the shaft; for it will readily be understood that the hollow shaft can contain no wedge larger than its own cavity without destroying continuity of outline.

Rationale of Treatment.—I presume no one will dispute that in the meatus we have the main obstacle to successful (curative) dilatation by means of sounds. There are comparatively few strictures that will not admit of palliative dilatation, *i. e.*, dilatation carried up to the full extent of what the meatus will admit. When this point is reached, however, we find ourselves compelled either to cut the meatus—that is to say, *to produce an abnormal condition*, or else to substitute for the sounds some other mode of treatment. It is here that we have to choose between the dilator and the urethrotome, and I believe that, with an in every respect satisfactory dilator at his command, no surgeon who has familiarized himself with the subject on an anatomical as well as clinical basis, will hesitate in his choice. If I have succeeded, as I believe I have, in producing such an instrument, then there will—with the exception of special cases, such as bands, valvular strictures, etc.—be in the future no necessity or justification for internal urethrotomy, with its attendant dangers and doubtful results.

With my instrument the treatment of stricture can go on uninterruptedly. When the largest size sound has been reached that will enter the meatus with ease, I simply substitute a dilator one or a few sizes smaller. In this way not only is the difficulty of the meatus obviated, but the treatment becomes at once superior to that by large sounds, as these, before entering the stricture, push this before them, while the dilator, being a few sizes smaller, enters the stricture readily, and, when engaged, dilates at right angles.

The instrument dilates to about two-fifths of the number represented by the shaft over and above this. Thus I have a number 25 that dilates to 33, a 30 that dilates to 43, a 28 that dilates to 40, etc., etc.

The *modus operandi* is sufficiently simple. The exact location of the stricture having been determined, the dilator is introduced a distance to make the centre of the dilating wedge to correspond with the stricture. One hand then steadies the instrument by means of the ring-handles, while the other slowly turns the screw-wheel until the desired degree of dilatation is obtained. While the index gives at all times accurate information in this respect, and will serve to keep dilatation within safe limits, as defined by the calibre of individual urethræ, I usually stretch until the patient complains of pain. I then either desist, or, generally, wait a few minutes, when usually the pain subsides, and I am able to advance one or two more numbers. In this way I have frequently been able to dilate four or five numbers at a single sitting. After the operation, a memorandum should be made of the highest number that has been reached. In a few days the operation is repeated, a higher number attained, and so on until the bulb-sound determines a satisfactory result. Where resiliency is so prominent a feature in a case that slow and gradual dilatation proves unavailing, the instrument will be found a *perfect divulsor*, by simply turning the screw-wheel rapidly, instead of slowly, up to a point previously determined, after measurement of the urethra and general considerations in individual cases, without regard, of course, to the patient's sensations. I have used it a number of times in this way, and was surprised to find with how little reaction, owing probably to the broad surface of the dilating wedge. Before withdrawing the instrument, the screw must, of course, be turned all the way back to allow the wedge to sink back within the shaft.



The instrument is so constructed that, after use, the wedge can be removed entirely, and both it and the shaft thoroughly cleaned.

I have no desire to draw comparisons between this and other instruments designed for the same purpose. I will therefore conclude with a brief summary of its chief characteristics, which are:

1. Simplicity of construction and mechanism.
2. The screw and lever plan, insuring irresistible strength and uniformity of pressure.
3. Dilatation parallel and at right angles.
4. A broad dilating surface.
5. Ease of introduction and extraction.
6. Facility of cleaning.
7. Reliability as to dilating at the proper place.
8. Restricting dilatation to the strictured portion and its immediate neighborhood.
9. Positive and absolute immunity of the mucous membrane.

195 Lexington Avenue.

Acupuncture. This mode of counter-irritation, which has rather fallen into disuse, is being recommended to the profession again. In rheumatic and neuralgic pains it is often extremely efficient.

London Pathological Society.—Drs. Charcot, Chauveau, Robin, Chonheim, Thiersch, Pirogoff, Schwann, Rindfleisch, and Gross were elected honorary members of the London Pathological Society, November 19th.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 20 to April 26, 1879.

STERNBERG, G. M., Major and Surgeon. Relieved from duty in Dept. of the Columbia, and to report in person to the Surgeon General for temporary duty. S. O. 95, A. G. O., April 19, 1879.

The following medical officers will represent the Medical Department of the Army at the annual meeting of the American Medical Association at Atlanta, Ga., on May 6th next: Surgeons J. J. WOODWARD, J. S. BILLINGS, WM. H. FORWOOD, and Asst. Surgeon R. M. O'REILLY. S. O. 97, A. G. O., April 23, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending April 26, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Apr. 19, 1879.	0	3	188	3	22	33	0	0
Apr. 26, 1879.	0	6	178	3	43	43	0	0

THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES will hold its tenth annual meeting in the parlors of the Young Men's Christian Association, Twenty-third Street, New York City, May 13th and 14th. A very important meeting is expected.—T. D. CROTHERS, Sec.

SIXTH DECENNIAL PHARMACOPŒIA CONVENTION.— To the several Incorporated State Medical Societies, the Incorporated Medical Colleges, the Incorporated Colleges of Physicians and Surgeons, and the Incorporated Colleges of Pharmacy throughout the United States: By virtue of authority devolved upon me, as the last surviving officer of the Pharmacopœia Convention of 1870, I hereby call a general convention to meet in Washington, D. C., on the first Wednesday in May, 1880, for the purpose of revising the Pharmacopœia of the United States. For the information and guidance of all parties interested I refer them to the rules adopted by the Convention of 1870, to be found on page 11 of the Pharmacopœia of the United States, and request their compliance with the spirit and intention of the said rules.—JAMES E. MORGAN, M.D., No. 905 E Street Northwest, Washington, D. C.

THE U. S. STEAMER "PLYMOUTH" AND YELLOW FEVER.—The Surgeon-General of the U. S. Navy has furnished the following facts in regard to the recent outbreak of yellow fever on the U. S. steamer "Plymouth:" on November 7th last, four cases of yellow fever occurred on board the vessel while lying in the harbor of Santa Cruz; these were removed to hospital on shore, and the ship sailed for Norfolk. Three mild cases occurred during the voyage, and the "Plymouth" was ordered to Portsmouth, N. H., thence to Boston. At the latter port everything was removed from the ship, and all parts of the interior freely exposed to a temperature which frequently fell below zero, the exposure continuing for more than a month. During this time the water in the tanks, bilges, and in vessels placed in the store-rooms, was frozen. One hundred pounds of sulphur was burned below decks, this fumigation continuing for two days, and the berth-decks, holds, and store-rooms were thoroughly whitewashed. On March 15th the ship sailed from Boston southward; on the 19th, during a severe gale, the hatches had to be battened down, and the berth-deck became very close and damp. On the 23d two men showed decided symptoms of yellow fever, and on the recommendation of the surgeon the vessel was headed northward. The sick men were isolated, and measures adopted for improving the hygienic condition of the vessel and crew. The surgeon reported that he believed the infection to be confined to the hull of the ship, especially to the unsound wood about the berth-deck, all the cases but one having occurred within a limited area; and that while the "Plymouth" is in good sanitary condition for service in temperate climates, should she be sent to a tropical station probably no precautionary measures whatever would avail to prevent an outbreak of yellow fever.

J. B. HAMILTON,
Surgeon-General U. S. Marine Hospital Service.

A SINGULAR RENAL CALCULUS.—Dr. A. E. Lowenthal sends us an account of a very rare form of renal calculus found, accidentally, while dissecting. The calculus filled the whole pelvis of the right kidney and was accurately moulded to the infundibula and calices. It was composed of phosphates covered with a thin layer of uric acid. The kidney itself was two-thirds the normal size and the seat of a chronic diffuse nephritis. The left kidney was enormously hypertrophied and perfectly healthy. The patient died of a pleuro-pneumonia. The history of the symptoms caused by the calculus could not be obtained.

FUNIS PRÆVIA AND THE GENU-PECTORAL POSITION.—Very strong testimony to the value of this position is given by W. J. Burge, of Pawtucket, R. I., who sends the following case: He was called to attend a patient in her third labor, and found the os dilating and the head resting on the anterior brim of the pelvis. Through the membranes the cord could be felt pulsating. The membranes were after a time ruptured when great prolapse of the cord took place. The head remained on the brim of the pelvis, and the labor pains were ineffectual. The patient was placed in the knee-chest position, the hand passed into the vagina, and the cord pushed back into the uterus. The pains immediately drove it out, however, and the first attempt was unsuccessful. After waiting a while a second effort was made, the cord was pushed back with one hand and pressure made over the pubes with the other. This time a strong contraction immediately ensued, the head engaged in the strait, the cord remaining up, and in half an hour the child was born alive. Dr. Burge asserts that he cannot be too grateful for Thomas's position; it has served him admirably in three cases.

A PERFUMED SOLUTION OF IODOFORM. — Shake tincture of iodine with a fragment of fused potassa till the color be removed. Cover the odor of the iodoform thus produced by the addition of eau de cologne. Dip lint in this solution, allow it to dry, and one will have an agreeable and excellent application for indolent ulcers, fissure ani, burns, etc.

Original Lectures.

THE PERSONAL IDENTITY OF THE LIVING AND OF THE DEAD.

TWO LECTURES DELIVERED BEFORE THE CLASS IN THE AUXILIARY DEPARTMENT OF MEDICINE.

BY JOHN J. REESE, M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE AND TOXICOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

[Reported for THE MEDICAL RECORD.]

LECTURE I.

THE PERSONAL IDENTITY OF THE LIVING AS ESTABLISHED: 1. BY DIRECT EVIDENCE; 2. BY PECULIARITIES IN APPEARANCE; 3. BY MEANS OF THE VOICE; 4. BY THE PRESENCE OF PECULIAR MARKS; 5. BY INFERENTIAL EVIDENCE.—THE IDENTIFICATION OF THE DEAD: 1. WHEN THE INDIVIDUAL HAS DIED RECENTLY; 2. WHEN THE SOFT PARTS HAVE ALL DECAYED. —THE AID AFFORDED BY CHEMISTRY AND THE MICROSCOPE, ETC.

Among the various subjects claiming the attention of the medical jurist, that of *personal identity* is by no means the least important. Cases are constantly occurring in the courts of law in which this question of identification comes up as a most important factor in the evidence. For example, it becomes necessary for a person who has been assaulted or robbed, to be able to identify the assailant or robber, when on trial; a witness is strictly examined as to the identity of a person or persons with whom he is acquainted; an alleged child or heir of an estate is compelled to establish his personal identity before the courts before his claim can be sustained, etc. And then, in relation to persons *found dead*—whether in cases of recent death, when the body has undergone but little change, or years after the decease, when nothing remains of the body but the bare skeleton from whence to glean the important information—the question of personal identity acquires the most intense interest, more especially in a trial for murder, where it becomes essential to establish the identity of the alleged victim as the *corpus delicti*.

It is true that the aid of the physician is not so frequently invoked for proving the identity of the living, since this can generally be equally well established by other persons, as friends and neighbors, as by a medical man. Still, there may be occasions of unusual complexity in which a professional opinion may become requisite, as, for example, to verify certain deformities, fractures, scars, and other marks about the person, when there are the evidences on which the identification may be dependent.

I shall consider this subject under the two divisions of: 1. *the identity of the living*; and 2. *the identity of the dead*.

THE IDENTITY OF THE LIVING, AS ESTABLISHED:

1. *By Direct Evidence.*

This may usually be established, 1, by the *direct evidence* of witnesses who have known the person long enough to have had his appearance sufficiently impressed on their memory; such is the testimony of acquaintances, neighbors, friends, and relatives. Although among the myriads of the human family it is very rare to find any two persons exactly alike in all points, yet remarkable instances have occurred where the personal resemblance has been so striking as to have baffled even the skill of the detective; and this resemblance has been made even still stronger by the existence of similar marks, cicatrices, or certain peculiarities of structure in both individuals. Some striking illustrations could be given of the extreme difficulty—amounting at times to an impossibility—of deciding the question, which also show how easily witnesses may be mistaken in their evidence on this subject. I shall only refer to two. In the year 1560 the celebrated case of *Martin Guerre and Arnaud du Tilh* was tried before the Parliament of Toulouse, France. Martin had been away from his home for eight years, when the person named du Tilh appeared, and represented himself as the long absent man. So great was the resemblance, that his statement was universally accepted by all of Guerre's family, including his wife, four sisters and two brothers-in-law, among whom he lived unsuspected for three years. About this time, however, something occurred to excite suspicions as to the true character of the supposed husband, when he was arrested and brought before the tribunal on a charge of fraud. Upon his examination he gave satisfactory answers to the most minute questions in relation to Guerre's former life. Some one hundred and fifty witnesses were examined during the investigation, of whom between thirty and forty testified, from a lifelong acquaintance, that the prisoner was Martin Guerre, while about the same number swore positively that he was Arnaud du Tilh, whom they well knew; and over sixty, who knew them both, declared that they were unable to say which the prisoner was. Finally, however, the real Martin Guerre appeared upon the scene, when immediately he was recognized; the four sisters who had previously testified that du Tilh was their real brother now admitted their error, and acknowledged the distinction. There being now no doubt of the guilt of the prisoner he was condemned, and afterward executed.*

The other instance is afforded in the recent famous Tichborne case, in which an individual named Orton, with various aliases, undertook to personate an English baronet and heir to a large entailed estate. So successful was his scheme that "he was sworn to be Sir Roger Tichborne by eighty-five witnesses, among whom were Sir Roger's mother, the family solicitor, one baronet, six magistrates, one general, three colonels, one major, two captains, thirty-two non-commissioned officers and privates in the army, four clergymen, seven tenants of the Tichborne estates, and seventeen servants of the family." The claimant also gave proof of "a fish-hook wound on the eye, of a mark of bleeding on the ankle, and of a peculiar scar on the head," all of which the genuine Sir Roger possessed. The case, however, broke down on cross-examination, many circumstances being proven against the claimant, which I have not now the time to enumerate. Suffice it to say that a verdict was taken against the claimant, and that an indictment was since found against him for perjury.

Now, as a fair inference from the above two remarkable cases, I think we may assume that appearances are *not* conclusive evidences of identity. In the language of a writer in the *London Spectator*, "a very large proportion of ordinary persons are very untrustworthy witnesses to identify, when dependent on appearance alone. They are, either from nature or habit, incapable of appreciating *form*, and form alone is the

*Wharton & Stille's Med. Jurisp., Vol. II., p. 1092.

unerring proof of personal identity. The difficulties in the way of identification, more especially of the dead, are to them insuperable." This writer, moreover, suggests, as a reason for this difficulty in identification from mere appearance, what seems sufficiently plausible, "that something like color-blindness affects this matter of identification; that there is a large number of persons whose evidence upon any question of identity, though perfectly honest, is worthy of very little trust; that men, upon this, as upon most other matters, are guilty of an unconscious carelessness like that which makes testimony about figure statements so often valueless."

A remarkable instance of what has been named false evidence of *diversity*, as distinguished from that of identity (and honestly supported), is afforded in the case of Lord Aberdeen, the young English nobleman who was drowned in this country a few years ago. This young man, heir of one of the oldest British peerages, and of excellent personal character, was seized with a romantic passion for a sailor's life. He came over to New England, and, under an assumed name, threw himself among common seafaring men, acquired their language, and adopted their habits and pursuits, so that he passed among them as a companion of their own social order, with perhaps some advantage of former education. One day he was lost overboard in a storm, and was drowned. Soon afterward search was made for the missing nobleman by his friends and family in England, no expense or pains being spared to ascertain the particulars of his death, and especially to establish the *fact* of the death; but it was, I believe, found to be exceedingly difficult, if not impossible, to procure such evidence from his sailor companions (who regarded him merely as one of themselves), as would seem to identify him as the heir of an earldom. This case will serve to illustrate what is called by another "the vehement antagonisms of evidence in cases of disputed identity."

2. *By Peculiarities in Appearance.*

A second means of establishing the identity of the living, especially in a criminal, is by certain peculiarities in the appearance which are noticed at the time of the commission of the crime, and which are therefore apt to leave a strong impression on the senses, such as (*a*) *size*, when the individual is very tall or very short, very corpulent or very slim; (*b*) *dress*, where a portion (sometimes it may be a mere shred) of the prisoner's dress is discovered near the seat of the crime, which exactly corresponds with the rest of the garment found in his own house.

3. *By Means of the Voice.*

A third means is by the *voice*. Peculiarity of voice always makes a strong impression upon those who observe it, and constitutes a valuable aid in identification.

4. *By the Presence of Peculiar Marks.*

A fourth means is by the presence of certain peculiar marks, either natural or acquired, about the person, such as moles, scars, cicatrices, deformities, fractures, etc. Such marks are usually well known and remembered by the friends and neighbors of the individual, who can usually identify them. Some of these remain upon the body during life; others gradually decline and fade away. In relation to *tattoo-marks*, Prof. Casper's opinion is that some of them (the red ones) are gradually obliterated by time, whilst the black and purple ones are more permanent. A cicatrix is permanent during life if there has been any original loss of substance. It may not always be distinguished from the surrounding skin until the part be smartly rubbed, when the white scar is immediately manifested on the red surrounding skin. You should be cautioned against too strong a reliance upon scars as a means of identity, since these may at times be discovered upon another precisely alike, both in form and situation. Under this head I would also mention the appearance of the *hands* as often indicating the nature and character of the occupation of the individual.

Photographs and other *portraits* of the suspected person are sometimes useful aids in the identification of the living as well as of the dead.

5. *By Inferential Evidence.*

Another valuable means of establishing identity is by *inferential evidence;* as when a person strongly resembling the accused was seen in the neighborhood of the alleged crime. Also by *footprints* which are shown to exactly correspond with the boots of the accused, and by impressions made on the ground by other parts of the body, as the knee, and which correspond with prisoner's dress. I may mention, finally, under this head, certain *suspicious circumstances* connected with a criminal which may go far in establishing his identity; such as some peculiarity in his conduct noticed about the time of the commission of the crime; evidence of his having used his *left* hand in an assault upon another or upon himself, if found to be left-handed; a connection between the prisoner and some article found near the scene of crime, as a weapon, or a bullet which exactly fits a mould in his possession, or the wadding of a gun shown to be composed of paper a portion of which is discovered still in his possession, etc.

THE IDENTIFICATION OF THE DEAD.

This may have reference (1) to the body recently dead; and (2) when the soft parts have disappeared by decomposition, and the skeleton only remains, or detached bones merely have been discovered.

1. *When the Individual has Died Recently.*

If the body is found unmutilated, many of the same general methods for establishing its identity are available as have already been mentioned in the case of the living; such as the testimony of friends and acquaintances as to the personal appearance of the deceased; clothing; certain marks upon the person, as moles, nævi, cicatrices, deformities, fractures, tattoo-marks, etc. Photographs and other portraits are also admissible, but are by no means reliable proofs.

If the body, after death, has been subjected to mutilation, and the severed portions removed to a distance from one another, and some of them even destroyed, as is sometimes done by a murderer, with a view to escape detection, the difficulty of identification is, of course, much increased; nevertheless, if the disconnected parts can be recovered, or even a portion of them, it will always be possible for a skilled anatomist so to readjust them as to build up the body again, as it were, by making the proper allowances for the deficient parts, and comparing these with other average specimens. Several striking examples of this are given in the books; I shall allude to only two. One of these is a well-known case which occurred in this country about thirty years ago—that of Dr. Parkman, who was murdered by Dr. Webster, of Boston, Mass. After the death of his victim, Dr. Webster attempted to destroy all evidences of the deed by cutting

up the body into fragments, some of which were burned in a grate, some immersed in chemicals, and others packed away in boxes in distant parts of the building. On the discovery of these remains, a week after the murder, the portions of the body were accurately examined; it was proved that they were human remains, of one and the same body, and of the male sex; and that they had not been dissected for anatomical purposes, but cut and hacked in different directions, for the object merely of mutilation. On restoring these parts *in situ*, and supplying the deficient portions, the proper measurements agreed closely with those of the missing Dr. Parkman. This circumstance, together with the discovery of certain marks of identity about the teeth and jaws (the head had been almost completely destroyed by fire), afforded sufficient evidence of the personal identity of the missing gentleman to enable the jury, on the trial of Dr. Webster, to find a verdict of guilty. The other instance is that recorded by Dr. Taylor, in his work on Medical Jurisprudence. A number of years ago a murder was committed on the river Thames, and a short time afterward a package containing mutilated human remains was found on one of the abutments of the Waterloo bridge. The murderer had, no doubt, intended to throw this bundle into the river, but it had been arrested in its descent. Dr. Taylor was asked to identify these mutilated remains; and when, after great difficulty, the parts were brought together, and found to fit, the body was identified as that of the murdered man—a Swedish sailor.

2. *When the Soft Parts are all Decayed.*

When the question of identity relates to the skeleton merely, or to portions thereof, the answers cannot always be so satisfactory; and the medical jurist has need of much caution and reserve before giving a positive opinion.

The very first thing for him to determine is whether the bones submitted to his inspection are human, or do they belong to some of the lower animals. Certainly, if the entire skeleton is discovered, there need be no doubt whatever on the subject; but if only a single bone or two be found, a mistake may easily be made, except by a practised anatomist. Indeed, some ludicrous blunders are recorded of persons of education mistaking the bones of the ox, horse, dog, pig, and goat for those of the human subject.

The Aid afforded us by Chemistry and Microscopy.

But you will no doubt ask, will not chemistry and microscopy assist us in such an instance? As regards the former science, I can at once and positively answer, no. The bone of man has precisely the same chemical elements as that of any other animal. The microscope does throw a little light upon the subject. The bone-cells, or corpuscles, are of different sizes in the various orders of animals. They are largest in the reptiles, and smallest in the birds. There is a striking analogy between the size of the bone corpuscles and that of the red blood-corpuscles among animals. The red blood-corpuscles of the reptiles are largest, and those of the birds smallest. The bone-cells of mammals occupy an intermediate position. The bone-cells of fishes are altogether different from those of all other animals. But, having had this much assistance, the microscope cannot distinguish the bone-cell of a man from that of any other mammal, for the bone-cells of the mouse, of the elephant, and of man are all alike; hence you see that the knowledge which the microscope gives us here is not of so much value after all.

Original Communications.

ON THE MECHANICAL TREATMENT OF CHRONIC INFLAMMATION OF THE HIP-, KNEE-, AND ANKLE-JOINTS,

BY A SIMPLE AND EFFICIENT METHOD—THE PHYSIOLOGICAL METHOD—WITH CASES.

By JOS. C. HUTCHISON, M.D.

(Read before the Kings County Medical Society, March 18, 1879.)

I DESIGN in this paper to describe a plan for the mechanical treatment of inflammation of the hip-, knee-, and ankle-joints by methods which seem to me to be more simple, effective, and agreeable to the patient than those hitherto employed.

It may be stated at the outset that morbid conditions of the joints are, as a rule, essentially chronic, and whether the disease originates in the synovial membrane, the cartilages, bones, or investing fibrous capsule, ultimately the morbid action involves all the tissues, so that, without the previous history as a guide, it is often impossible to determine in what tissue the inflammation began. It is to my mind merely a pathological refinement, in most cases, of joint disease, especially in childhood, to attempt to describe the symptoms indicating distinct pathological states of the individual structures composing a joint. The treatment would be essentially the same whether one or all of the articular structures are simultaneously involved.

The indications for the mechanical treatment of inflammation of the joints of the lower extremities are to secure *immobility, extension, the removal of the superincumbent weight of the body, and means of enabling the patient to take open-air exercise.* The accomplishment of these indications, and the use of judicious medication and proper hygienic influences, comprehend all the principles of treatment.

Immobility of an inflamed joint, absolute and complete, is a primary and essential condition of its local treatment. The more effectually this is secured, the more rapidly and perfectly the joint recovers its normal condition, and the less danger there is of its being permanently damaged. The greatest obstacle to recovery is friction of the inflamed surfaces. I do not mean a mere limitation of the movements of the joint—such "rest" as is obtained by placing the limb upon a soft bed or pillow—but the perfect fixation secured by a splint or other means, which admits of no motion whatever. I am aware that many excellent surgeons believe that the danger of irreparable structural change and anchylosis of the joint is very great from prolonged fixation. This I am sure is an error. There may be a temporary anchylosis, such as arises from a diminution of the elasticity of the articular cartilages, and an enfeebling of the ligaments and muscles from disuse; but such changes are, or need be, only temporary, for by careful and steadily increasing use, reparation takes place in all these structures, and after a time they show no defect. I have never seen true anchylosis when the joint has been immovably fixed until the inflammation has subsided, except in cases of extensive destruction of the joint structures, in which case a cure by anchylosis is the thing to be desired. Exceptional cases no doubt occur, but the anchylosis takes place more commonly when fixation is incomplete, and more or less motion and friction

are permitted before the inflammation has entirely subsided.

The object of extension is (1), to correct the malposition of the limb. An inflamed joint is never straight; it involuntarily becomes flexed, nor is it possible for the patient to prevent or change this position. The flexion takes place slowly, almost imperceptibly, but surely, even when the limb has been permitted to rest quietly in bed undisturbed either by the patient or nurse; the degree of flexion depends upon the intensity or the duration of the disease. Every joint, when it becomes inflamed, assumes a characteristic *position* which it is important to know, not merely as a diagnostic sign, but also as a point which may be made useful in treatment. When the *hip-joint* is inflamed, the thigh is flexed on the pelvis, and, as a rule, is slightly adducted. The *knee-joint*, when inflamed, is always flexed more or less. In the case of the *ankle-joint*, the foot is flexed upon the leg, the heel is raised by the gastrocnemii, and the toes pointed downward. The *improper position* which the joint assumes should be corrected as soon as possible, even when the inflammation is acute; this is important in order that the different structures of the joint may not be kept in a state of undue pressure, or of inordinate tension, either of which interferes with healthy nutrition, and so conflicts with the curative process. As the joint becomes straightened under the influence of extension, the patient experiences an almost immediate diminution of pain. (2.) By means of extension we also overcome the spasm and contraction of the muscles, which, by reflex contraction, jam together the inflamed articular surfaces, and is the chief cause of pain in joint inflammations; but I do not believe it possible, by any amount of extension that can be applied, to separate the inflamed and swollen interior surfaces of the joint so as to relieve them from pressure and the consequent pain. What we do accomplish by extension is the relief of spasm and muscular shortening; and to quiet the muscles is an imperative therapeutic axiom.

The necessity for securing the beneficial effects of out-door air by means of some portative apparatus which removes pressure from the inflamed joint is now so generally appreciated that we need not urge its importance.

The special methods of meeting the above indications will be described when we consider the treatment of the diseases of particular joints.

HIP-JOINT DISEASE.

The American Journal of the Medical Sciences for January, 1879, contains an article by the writer "On the Treatment of Morbus Coxarius by a New Method of Extension; the Physiological Method; with Cases," and I propose on this occasion to illustrate the method by exhibiting some patients who are now undergoing the treatment, and to show that the various kinds of portative apparatus now in use do not accomplish what is claimed for them. It is my purpose also to demonstrate that the "physiological method of extension" is quite as useful for the treatment of inflammation of the knee- and ankle-joints as it is for morbus coxarius.

For many years Harris, of Philadelphia, and others, treated morbus coxarius in bed by extension and fixation of the joint with the long splint formerly used for fracture of the thigh, with moderately satisfactory results; and in 1855, Dr. H. G. Davis, of New York, described a new portative apparatus designed to produce extension while allowing motion of the joint, and permitting the patient to enjoy the benefits of out-door exercise, so important in the treatment of this disease. It was claimed also by Davis and his followers that confinement to bed with the long splint applied, fixing the joint, not only impaired the general health, but increased the risk of anchylosis, which would leave the patient in a worse condition than if left to the tender care of Nature herself.

This new method of treatment awakened the interest of surgeons generally, and very soon afterward Sayre improved or modified Davis's instrument, and, with the enthusiasm of an ardent nature, brought the new treatment prominently into notice, and by papers and lectures did more to secure its general adoption than the originator himself had done. The instruments of Taylor, Vedder, Washburn, and that devised by myself, are also modifications of Davis's, designed to accomplish the same indications, viz.: *mobility of the joint with extension.*

Barwell, Andrews, of Chicago, Bauer, now of St. Louis, and Thomas, of Liverpool, believe that the indications for the proper treatment of the disease are to secure *immobility of the joint with extension*, and they have respectively devised very ingenious instruments to accomplish this purpose; while Professor Hamilton's wire-gauze apparatus was designed merely to secure *immobility of the joint without extension.*

All these appliances are familiar to you, except that of Thomas, of Liverpool, which I will briefly describe. It consists of a flat piece of malleable iron, from three-quarters of an inch to an inch in width, by one quarter in thickness, which extends from the lower angle of the shoulder of the affected side in a perpendicular line downward to the calf of the leg. A strap of hoop-iron is riveted to the top of the upright, and nearly encircles the body a little below the axilla; another strap of iron, half the circumference of the thigh, is fastened to the upright just below the fold of the buttock; and a third, half the circumference of the calf, is riveted to the lower extremity of the upright. The instrument is carefully moulded to the inequalities of the body by means of wrenches, and is well padded and covered with leather. The apparatus having been applied, the patient is allowed to walk on crutches with a patten on the sound foot, so as to elevate the diseased limb two or three inches from the ground.

This apparatus will not permit the patient to sit down, and renders defecation very inconvenient.

We have therefore three classes of portable appliances in use for the treatment of morbus coxarius, all of which, with due respect to the ingenuity of their respective authors, I feel called upon to condemn: (1), because they do not achieve the objects for which they are designed; and (2), if they did, they are cumbrous and uncomfortable, and therefore should be abandoned, because the same indications can be accomplished by a method simpler and more comfortable to the patient.

The theory that motion and extension are obtained by the apparatus of Davis and his followers is a great deception. If you notice a patient wearing Taylor's or Sayre's long splint (modifications of Davis's), those most frequently used here, you will see that when he walks the whole pelvis swings, and there is no motion at the hip-joint.

This immobilization of the joint a kind Providence has secured, in spite of the efforts of the surgeon to prevent it. You will also observe that there is no extension made by the instrument, as the inventors claim, because the strap which is designed to produce extension, and passes from the ends of the adhesive plaster beneath the extension bar, is slackened

at every step. This I have noticed lately in a number of cases in one of the hospitals of the city of New York, where there is a large orthopædic ward under the care of an accomplished orthopædic surgeon, who uses Taylor's apparatus. The instrument merely transfers the weight of the body from the hip-joint to the perineal band, but the extension is made by the weight of the limb alone.

The apparatus of Andrews, Barwell, and Bauer are equally inefficient in securing the objects for which they were designed; viz., to render the joint immovable and to produce extension of the limb. Thomas's instrument, by its long leverage, extending from the angle of the scapula to the calf of the leg, has some control over the movements of the joint; but it is unnecessary for this purpose, and, as already indicated, is very inconvenient to the patient; while the wire-gauze apparatus of Prof. Hamilton can have but little influence in producing immobility, because it does not extend far enough above and below the joint.

Why is it, then, it may be asked, if the appliances referred to are insufficient to accomplish what is claimed for them and are deceptive, that so much improvement has been reported from them when compared with others not having their features? For my own part, I am in the habit of explaining these favorable results by the fact that the use of the instruments devised by American ingenuity has liberated patients from in-door constraint, and enabled them to live and move and exercise in the open air, instead of being treated in bed as was formerly done; and also from the fact that the principal indications, immobility and extension, are achieved in spite of the apparatus used.

We have already considered the indications for the treatment of hip-joint disease, and also for the treatment of inflammation of the knee- and ankle-joints. They are: (1), to secure immobility of the joint; (2), to make extension; (3), to take off the superincumbent weight of the body; (4), to provide means to enable the patient to take open-air exercise; and I desire to demonstrate that they can be accomplished with comfort to the patient and convenience to the surgeon by the simplest expedients.

The method of treating hip-joint disease which I commend to your attention, after having used it exclusively for the last two years, is illustrated on the little patient before you (Figs. 1 and 2). To the shoe of the sound limb a steel plate, corresponding to the sole of the shoe, is attached by upright rods two and a half or three inches in length, so as to raise the foot from the ground; it is the shoe ordinarily used for shortened leg. This elevated shoe and a pair of crutches constitute the apparatus. As the patient stands on his crutches the diseased limb is suspended. The shoe is high enough to prevent the toes of the affected side from touching the ground, and the sole should be covered with leather to avoid noise when walking.

Here are brief notes of the cases taken from the records of the Orthopædic Infirmary. The first case is that of Henry S., and the record was made by Dr. A. R. Paine.

He is five years old, and was brought to the dispensary for treatment Feb. 4, 1879. His mother states that he began to have trouble in his left hip-joint eight months previously; that he had had pain in the hip and also in the knee from that time to the present, increasing at night; and that for some time he had not been able to walk. An examination revealed the existence of well-marked morbus coxarius, as indicated by the following symptoms: considerable fulness in the gluteal region, obliteration of the gluteal fold, the thigh slightly flexed upon the body; there is apparent anchylosis at the hip-joint, the pelvis moving with the femur; the effort to move the joint produces great pain; there is also pain on pressing the trochanter inward and when the foot is jarred. The elevated shoe and crutches were ordered for him.

He was seen a second time Feb. 21st. Has used the shoe and crutches about a week. The first day he tried them he was run against and knocked down, falling of course upon the lame hip; he suffered a great deal from the injury, cried all night, and the flexion of the limb was greatly increased, but on getting upon his crutches in the morning the pain subsided and the limb gradually resumed its former position. Since that time he has had much less pain and goes about easily and comfortably. March 11th, the mother says the boy is doing "splendidly;" he has no pain day or night, and the position of the limb is good. The case is before you, and speaks for itself. There is every reason to suppose that it will progress satisfactorily.

Fig. 1.

Fig. 2.—Shows the shoe alone.

Case II.—Morbus coxarius (third stage); progressive improvement by the use of the elevated shoe and crutches.

This little boy, three years old, was brought to the Orthopædic Infirmary, Feb. 14, 1879, and the record of his case was made by Dr. H. W. Rand.

The parents think the present trouble commenced when the child was six months old. He is tolerably well nourished, and gives no history of injury. When he began to creep it was noticed that he favored the right leg. Two months later swelling appeared around the hip-joint, most prominent in the groin, where it was opened by the family physician, discharging a thin yellowish fluid.

Since the child began to walk he has always borne the most weight on the ball of the foot, rarely allowing the heel to touch the floor, owing to flexion of the thigh on the trunk. He complained of very little pain until December of last year, since which time

pain has been almost constant and referred to the hip-joint.

When presented at the infirmary, the thigh was flexed on the abdomen, foot inverted, pelvis drawn up on the affected side, nates flattened, and gluteo-femoral crease lowered. Movement of the thigh excited spasmodic action in all the muscles around the joint, producing apparent anchylosis of the hip-joint, the pelvis moving with the femur. Pressure of the head of the femur against the acetabulum and pressure behind the trochanter caused pain.

Ordered elevated shoe (2½ inches) for left foot, and crutches.

Patient returned March 4th. Has learned to walk with the crutches and has had no pain for the past week. When last seen—March 11th—he was still entirely free from pain. Movement excited less spasmodic action in the muscles around the joint, and the flexion of the thigh on the abdomen had somewhat diminished.

A point of interest in this case is the early period at which children may be taught to use the elevated shoe and crutches.

The third case I bring forward as an illustration of complete recovery from morbus coxarius (third stage), treated by the elevated shoe and crutches. This case has been fully reported in the January No., 1879, of *Hays' Journal*, from notes by Dr. Paine, and I will not repeat it here. An examination shows that the position of the limb and foot is perfectly normal; there is no shortening; the joint moves freely in all directions without pain; the most careful scrutiny reveals no evidence of disease, and he looks and feels well. He was under treatment at the infirmary for eight months, when his recovery was pronounced complete.

By the simple appliances shown upon the patients whom I have presented to you this evening we fulfill all the indications for the mechanical treatment of hip-joint disease, and I desire to emphasize the statement that whatever artificial appliances for fixation and extension may be added, they simply tend to increase the discomfort of the patient.

Immobility, which it is just as important to obtain in the treatment of inflammation of this as of other joints, is secured by reflex contraction of the peri-articular muscles, aided by intra-capsular effusion, and the voluntary effort of the patient to keep the joint at rest on account of the pain which motion produces. Fixation of the joint is one of the earliest and most characteristic conditions in morbus coxarius; and it is so marked, that when we move the limb, the pelvis moves with it; there is apparent anchylosis. This rigidity continues until nature says immobility is no longer necessary; but so long as it is necessary, she secures it better than we can by any artificial appliances. In the later stages of the disease motion is desirable, and gradually, as the inflammation subsides, the muscles become relaxed, motion returns, and anchylosis is prevented, except in extensive destruction of the joint surfaces, in which case a cure by anchylosis is the thing to be desired.

Extension is made by the weight of the suspended limb, which is equal in weight to one-fifth of the whole body, is greater than the weight ordinarily employed for extension, and is quite sufficient to subdue the spasm of the muscles which crowd the head of the bone into the inflamed acetabulum and is the chief cause of the pain which the patient experiences. We all know how promptly contraction of the muscles of the extremities, in cases of cholera or from other causes, is overcome by forcible extension. The pain in the part is relieved not by separating the inflamed articular surfaces as has been claimed, for we cannot separate them to an appreciable extent by any amount of extension that can be applied. The extension not only relieves pain, but it corrects the *malposition* of the limb, whatever it may be, and prevents the deformity which would otherwise occur from contraction of the muscles or partial dislocation of the head of the bone. By means of the elevated shoe and crutches *the weight of the body is removed from the diseased joint and the patient can enjoy all the benefits of open-air exercise*, conditions so evidently necessary as to require no special consideration.

It seems to me probable that the method of extension here described is both more efficient and more agreeable to the parts concerned, by reason of being more gradual, equable, less arbitrary and constraining, and, therefore, exciting a less degree of reflex resistance than most other methods. There is a certain degree of instinctive, unconscious recoil in the mind of every patient, young or old, against all the various devices of constraint or imprisonment which a splint or apparatus implies.

This plan of treatment should be adopted at once, whatever the stage of the disease, and continued until the cure is completed, except in the comparatively rare form of arthritic coxalgia, where acute inflammation of the synovial membrane and other soft structures of the joint is suddenly developed, attended with great constitutional disturbance and excruciating pain, increased by the slightest movement of the limb or the shaking of the bed. In such cases it would be inappropriate at first. Until after the acute symptoms have subsided they should be treated in bed with the long splint and the weight and pulley, together with other appropriate remedies.

There may be cases in which it will be necessary to make extension at night, by the weight and pulley, to relieve the usual nocturnal pain, while the elevated shoe and crutches are used during the day, but I have not thus far met with any, even among those who had used the night extension, with some portative apparatus during the day, up to the time they came under my treatment.

The patient soon learns that relief from pain is obtained by suspending the diseased limb, and then he is glad to walk or stand on the crutches three or four hours daily. This appears to be sufficient to relax the muscles to such a degree that spasmodic contraction, with the accompanying pain, does not take place at night.

For children who are too young, and older persons who are too feeble to use common crutches, Darrach's wheeled crutch, or the ordinary go-cart, are admirable aids to locomotion. Darrach's crutch is the best, as it is so constructed that the patient may be partially suspended in the crutch, if necessary, by a perineal band, which prevents fatigue, and it is also lighter and more elegant in construction. The elevated shoe should be used with either instrument. If a case comes under treatment at so advanced a stage that resection is necessary, the elevated shoe and crutches should be used after the active symptoms following the operation have subsided, instead of adopting the usual practice of confining the patient to bed and using the weight and pulley.

THE KNEE-JOINT.

From the diseases of the hip-joint we will descend to those of the knee; but we must take the metaphor in an anatomical, not a surgical sense; for the frequency with which inflammation occurs in the knee-joint, owing to its complicated mechanical machinery

and its exposed position both in relation to atmospheric changes and liability to injury from violence, invests the subject with an interest to the surgeon quite as great, if not greater, than that which pertains to the hip-joint.

For the morbid conditions of the knee-joint the indications for treatment are in all respects the same as for inflammation of the hip-joint, with the addition of *compression* over the joint.

The knee is not, like the hip, surrounded by powerful muscles, which by their rigidity immobilize the diseased hip-joint. It is necessary, therefore, in the case of the knee, to bring to our aid some mechanical restraint in order to effect complete rest. To secure *fixation* of the knee-joint, I use splints made of hatter's felt, such as you see on the patient before you (Fig. 3). It consists of seven layers of cotton-cloth saturated with shellac, and well rolled together while hot. It is manufactured of this thickness specially for me, by Mr. Holley, of South Fifth Avenue, New York, and may be obtained from Tiemann, and I suppose other surgical-instrument makers. That ordinarily sold consists of but five layers of cloth, which for most cases is not firm enough. To give effectual rest to the joint, the splint should be of sufficient length, and wide enough to nearly surround the limb; it should extend half way up the thigh, and to a corresponding point below the knee. A shorter splint, merely wide enough to cover the posterior part of the limb, does not secure the complete immobility which I have insisted upon in the treatment of diseases of the joints, where absolute rest is demanded. The splint having been cut of the proper length and width (the material is easily cut with a sharp knife), and the limb covered with a stocking, the felt made pliable, preferably by dry heat in an oven or before an open fire, or by immersion in very hot water, is applied to the limb and covered quickly, and firmly with a bandage from below upwards, so as to mould it to all the inequalities of the surface. While the splint is being applied an assistant should make extension from the foot, so as to straighten the limb as much as possible in cases where the joint is flexed; but no violent effort should be made to reduce the malposition; this can usually be accomplished by the gradual, painless (physiological) extension made by the weight of the limb, to which we shall presently refer. The joint surfaces are morbidly sensitive to pain, which would be greatly increased if they were suddenly and forcibly pressed together in the effort to reduce the deformity at once. If the surgeon's hands are very sensitive to heat, he may handle the splint better by wearing a pair of cotton gloves wet in tepid or moderately cold water. So soon as the splint regains its inflexibility, and this it does very quickly, it may be removed, trimmed up, and holes punched an inch or an inch and a half from the front edges for lacings. The object in punching the holes a little way back from the edges is to permit the splint to be made smaller by cutting off the edges, so that pressure may be kept up as the knee diminishes in size. The splint should nearly meet in front, and be laced as tightly as the patient can bear with comfort; all the benefits of elastic pressure may be secured by surrounding the knee with a layer of wool-wadding, which never becomes matted, never loses its elasticity, and is an extremely comfortable method of making pressure, if the patient should complain of discomfort from the splint. If in any case it is considered desirable to leave the top of the knee uncovered, a semicircular piece may be removed from either side of the splint, and windows may be cut at any point where there are fistulous openings which require dressing. The splint may be made more comfortable in warm weather by perforating it here and there with a punch. If the leg is rotated on its longitudinal axis with a tendency to inversion or eversion of the foot, this should be prevented by extending the splint down to the foot.

FIG. 3.

If the leg is flexed when the splint is first applied, and cannot easily be forced into a straight position, the angle of the splint should be changed from time to time, as the leg becomes straighter under the influence of extension by its own weight. This may be done by softening the posterior part of the splint by the application of a sponge dipped in hot water; a bandage should then be firmly applied, while extension is made upon the leg by the hands of an assistant. So soon as the splint hardens, the bandage is removed and the lacings tightened. The splint, although firmly applied, does not interfere with the straightening of the joint by the extension made by the weight of the leg.

I prefer the felt splint to one made of plaster-of-Paris, leather, or liquid glass, because, while it is equally firm, it is also lighter, adapts itself just as well to the inequalities of surface about the knee, is more easily applied, its angle may be changed without removing it from the knee, and it may be unlaced and opened to examine the parts, or even removed, without disturbing the joint.

By means of the knee-splint we not only fix the joint and contribute to correct its malposition, but we also make *compression* upon the part, which is a valuable therapeutic auxiliary in the management of these cases, and its importance must not be overlooked. Compression causes absorption of non-purulent effusions into the joint, removes the boggy, infiltrated condition of the connective tissue which surrounds it, protects the part and gives support to the relaxed ligaments and synovial membrane.

Extension is best accomplished by the use of the elevated shoe and crutches which have already been described in considering the treatment of hip-joint disease. (Fig. 1.) The weight of the suspended leg, which may be estimated as one-twelfth to one-tenth of the weight of the body (eight to ten pounds in a body weighing one hundred pounds), is quite sufficient to tire out the muscles, which by reflex contraction compress the already suffering tissues within the joint, increasing the pain and leading to interstitial absorption—in short, the muscles are restored to their length. By means of extension we also correct the malposition of the limb, which is usually contracted to an angle of 120°; but extension has not the slightest influence in separating the diseased articular surfaces, nor do I consider this necessary. This method of extension is so gradual and equable, and therefore so agreeable to the parts concerned, that the muscles are persuaded to relax, if such an expression is permissible in this connection, instead of being irritated and stimulated to contraction.

The apparatus of Prof. Sayre for producing extension of the diseased knee-joint, as well as the appliances of H. G. Davis and Sherman, of Chicago, for the same purpose, are creditable to the inventive genius

of their respective authors; but those of you who have used either of them must be aware of the skill and experience necessary to apply them properly, the constant attention they require to keep them suitably adjusted, and the discomfort to the patient produced by the irritating effects of the adhesive plaster by which they are attached to the limb. Moreover, the effort to produce forcible extension by these various devices excites reflex resistance, and the patient, young or old, instinctively recoils from the attempt to overcome muscular contraction by an exertion of strength applied by means of an apparatus.

The weight of the body being removed from the diseased joint by the use of the elevated shoe and crutches, the patient should be kept out of doors as much as practicable, and if old enough to understand the rationale of the treatment, the importance of using the crutches three or four hours daily should be explained to him, and, if necessary, their employment enforced. Patients should also understand the importance of keeping the joint at rest. They not infrequently complain of the restraint of the splint, and secretly remove it themselves (I speak especially of dispensary patients), not because they really suffer pain from the position or confinement of the limb, but because they are afraid of losing the use of the joint. I mention this, not to induce you to shut your ears or disregard the complaints of patients—on the contrary, I think they always deserve attention—but to warn you against deceit from this cause.

There are many mild cases of chronic inflammation of the knee-joint characterized by slight effusion into the joint and tenderness on pressure over the lower part of the inner condyle of the femur, or at the inside of the head of the tibia, in which there is no pain on pressing the articular surfaces together. In such cases the application of the knee-splint is sufficient to effect a cure without the use of the elevated shoe and crutches.

When the disease has resulted in destruction of the joint and caries, either from the violence of the attack or the advanced stage of the disease when it came under observation, we may still hope to save the limb and secure a cure by anchylosis. In fact, by rightly carrying out the indications above referred to, of which the first in importance in all joint inflammations is perfect immobility of the part, the most unpromising cases not infrequently recover; but if the patient is becoming exhausted by suppuration and there is not sufficient reparative power left to throw off the disease, resection or amputation may become necessary.

THE ANKLE-JOINT.

In the treatment of inflammation of the ankle-joint and its consequences, *perfect rest* of the parts (mechanical immobilization), and the *removal of pressure* from the diseased articular surfaces, is quite as important, and I may add quite as satisfactory as in the diseases of the hip and knee, and the indications may be met in the same way. Instead of the felt, I prefer to use for fixing the ankle, two splints made of plaster-of-Paris, because they adapt themselves better to the inequalities of the surface about this joint, one to be applied in front and the other behind, extending from the middle of the leg to the ends of the metatarsal bones, and wide enough to leave an interval of half an inch between the edges on the inner and outer side. The splint should be made of two thicknesses of Canton flannel with coarse meshes, or three thicknesses of coarse towelling cut of the proper length and width. One layer of cloth is laid upon a table and covered with liquid plaster of the consistence of cream, and spread smoothly with a table-knife. The other layers are then immersed in the plaster and applied evenly and smoothly over the first; and when both splints have been prepared, one is applied in front and the other behind, with the under surface of the first layer, which is not covered with plaster, next to the skin, and covered with a roller bandage firmly applied from below upward. The surgeon should now grasp the foot, and holding it at a right angle to the leg, make extension until the plaster hardens, which requires about five minutes. The bandage should then be removed and the splints surrounded by three or four strips of adhesive plaster, and the bandage reapplied more loosely. Windows may be cut in the plaster so as to allow any openings that may exist in the parts to be uncovered. (Fig. 4.)

FIG. 4.

In all cases of diseased ankle-joint, the heel is raised more or less by the contraction of the gastrocnemii, and the toes pointed downward, if it is permitted to pursue its own course, and it is important to overcome the contraction of the muscles and place the joint at rest with the foot in its normal relation to the leg, (1) to secure its proper position, should anchylosis take place; and (2) to relieve the pain produced by the unremitting muscular contraction day and night.

To remove pressure from an inflamed ankle-joint, and to provide means for letting the patient get the benefits of the open air, is not less important than in the case of a diseased hip- or knee-joint. To accomplish these essential indications, a variety of instruments have been devised; but they are liable to the same objections which have been found to the appliances used for producing extension of the knee-joint. After an experience somewhat extended in the treatment of these affections, I have no hesitation in recommending the elevated shoe and crutches as the best and simplest method of making extension and removing pressure; it is just as effectual for the ankle as for the knee- and hip-joints. The weight required is not great, and the weight of the foot is sufficient to overcome the muscular contraction.

If the foot, from long neglect, cannot at once be brought to a right angle with the leg, the splints should be renewed every five or six days, increasing

the extension a little at each application, until the foot is brought into proper relations with the leg.

The advantages which the mechanical treatment here described possesses over that commonly employed in the management of the diseases of the lower extremities are:

1. It saves the surgeon the trouble and annoyance of applying and carefully watching the instruments in ordinary use, to see that proper extension is kept up and undue pressure prevented; while the patient's comfort is greatly promoted by dispensing with adhesive plasters, which irritate the skin and require removal from time to time, and also with the perineal band in hip disease, which is a constant source of discomfort.

2. The spasmodic contraction of the peri-articular muscles is overcome by the gentle, persuasive, and painless (physiological) extension made by the weight of the limb for several hours each day; whilst forcible extension, either by the ordinary portative instruments, or by the weight and pulley, irritates the muscles and stimulates them to resistance and contraction, which must be overcome by main force.

3. I am quite confident, judging from the experience thus far obtained, that the plan of managing diseases of the joints herein described will shorten their duration more decidedly than can be done by the older methods of treatment.

4. The apparatus (if so simple a thing deserves the name of apparatus), is inexpensive, and can be made by any ordinary mechanic.

In conclusion, Mr. President, allow me to say that it was with a good deal of reluctance that I ventured to condemn as useless or hurtful the appliances hitherto in use in the treatment of diseases of the hip-, knee-, and ankle-joints, and to commend to professional notice new and simpler methods. I should not have had the audacity to do so, had not my convictions, based upon practical experience, have seemed so plainly to warrant the positions I have endeavored herein to maintain. These convictions have been strengthened also by the favorable opinions expressed of the treatment of hip-joint disease, since the publication of my paper upon the subject, by surgeons in different parts of the country, for whose judgment I have long been accustomed to entertain the highest respect.

Injury of the Eye Inflicted by the Beak of an Owl.—M. Dufaur reports the following interesting case: A common brown owl had built its nest beneath the projecting roof of a farm-house, where it had a brood of young ones. One day the farmer, moved by curiosity, drove away the old bird, took out the young owls, and, after looking at them, replaced them uninjured in the nest. In the evening, as he was entering the house with his servant, the latter suddenly heard the beating of wings, felt the claws of the owl on his chin, and before he could defend himself, received a blow from its beak directly under the eye. Fortunately the sight was not affected, and the man escaped with some severe pains. On the following day an unsuccessful hunt for the bird was instituted, but in the dusk of the evening it appeared again, and attacked the farmer himself, striking him directly in the eye with its beak. M. Dufaur was consulted, and found a wound of the cornea, one and a half centimetre in length, and an abundant intraocular hemorrhage. The sight of the eye was completely lost, and the other eye was subsequently threatened with sympathetic inflammation.—*Le Mouvement Medical.*

Progress of Medical Science.

Case of Athetosis—Death from Phthisis—Post-mortem Examination.—H. B., æt. thirty-three, was admitted January, 1877, to Westminster Hospital in an advanced stage of phthisis. When the patient was three years old he had whooping-cough, and soon after two fits, which left him paralyzed on the left side. He gradually gained power, however, in the limb, and at the age of ten could run about as well as other boys. The athetosis appeared soon after the fits, and gradually increased in severity as power was restored. The inco-ordinated movements had not changed much during the past twenty years.

The movements were almost exclusively confined to the left upper limb, and were continuous and involuntary. When the hand was extended with the palm downward, the index and middle fingers were slowly and gradually flexed. The thumb was also adducted, the hand was then supinated, the fingers again extended and the thumb abducted. Pronation of the hand completed the cycle. This type of movement was, however, subject to some variation. When the fingers were flexed it required considerable force to extend them. Patient could slightly control the movements by a great effort of the will. The hand was only quiet during sleep; the movements were so constant that the patient could not use the hand for any of the ordinary purposes of lifting. The left leg occasionally exhibited a somewhat similar condition, but only when he was tired out after a long walk. The movements were increased by worry and trouble, and appeared to be diminished by smoking. There was no loss of sensation in either hand. The muscles on the posterior aspect of the forearm were much more wasted than those on the anterior aspect. The patient died from diarrhœa and exhaustion on March 19, 1879.

Autopsy.—Brain: right hemisphere distinctly smaller than the left, about three-quarters of an inch shorter; the posterior half of the middle and inferior frontal convolutions, and, to a slighter extent, the superior and ascending frontal, were distinctly smaller on the right side than on the left; the right parietal convolutions were also smaller on the right side. There was a depression on the anterior portion of the temporo-sphenoidal lobe, about one inch long. There was a deep depression extending backward into the lobe, about three-quarters of an inch deep. The right anterior pyramid was very conspicuously smaller than the left. The convolutions of the island of Reil were apparently normal, but, on the inner side, a deep excavation was found between the anterior extremity of the perforated spot and the convolutions, extending backward to the level of the corpora albicantia, and forward, between the convolutions of the island of Reil and operculum, to the anterior surface of the hemisphere. Anteriorly the fissure was three-quarters of an inch deep, and about two-and-a-half inches long. The sides seemed to have been in apposition except outside the perforated spot, where the cavity was about one-fourth inch wide; its roof was formed by radiating fibres spreading upward from the pons. Upon opening the ventricles, almost the whole of that portion of the right corpus striatum lying in front of the thalamus appeared to be destroyed; posterior portion of nucleus caudatus unaffected. A small portion of the inner part of the corpus striatum near the middle appeared intact, but the

whole of the gray substance was destroyed. The optic thalamus seemed to be quite healthy.—*The Lancet*, Dr. Sturges, March 15, 1879.

The Use of the Actual Cautery in Medicine.—In choosing a cautery, it is always advisable to select one with a platinum tip, since this metal will not become rough from long usage. The Paquelin benzine cautery is the most serviceable one hitherto invented, the only objection being its great cost. The Brown-Séquard cautery (which merely consists of an olive-pointed steel cautery-iron about 30 ctms. long, the olive being about 15 mm. in diameter at the base, and carefully covered with platinum), will, however, answer all practical purposes. This may be heated to a white heat in a grate-fire.

The method of application usually adopted is that called "cautérisation transcurrente" by Jobert and Notta, which consists in making very light parallel strokes with the cautery at white-heat over the part chosen as the seat of counter-irritation. From four to twelve strokes can be made in a very short space of time, and with very little suffering; only the cuticle should be affected in order to avoid subsequent suppuration. One error to be avoided is striking hard at the beginning of the strokes, since this causes blistering and suppuration. The only dressing required is the application of a piece of linen. It is often desirable to repeat the cauterization frequently. In spinal affections we may begin at the top and cauterize the entire spinal region systematically and repeatedly by means of daily or tri-weekly applications. The majority of patients consider the pain very slight. It is highly unphysiological to freeze the skin previous to the application of the cautery. Superficial cauterization with the actual platinum cautery has been satisfactorily used in the following conditions:

1. Neuralgia, acute and chronic, of the trigeminus and of the peripheral nerves.
2. Spinal irritation and various cerebral paræsthesiæ (pressure, numbness, etc.).
3. Spinal congestion.
4. Various forms of myelitis, acute and subacute.
5. Epilepsy (not by myself).
6. Intercostal pain.
7. Lumbago, acute and chronic.
8. Articular inflammation.
9. Peri-arthritis (chronic rheumatism?) especially of the shoulder.—*Archives of Medicine*, Dr. E. C. Seguin, April, 1879.

A Case of Obstinate Ulceration of the Neck of the Uterus cured by Grafting.—The patient was a prostitute who had been previously treated for pelvic peritonitis. Examination with the speculum showed that the neck of the uterus was very much enlarged and hard, and around the os was a circular ulcer seven-eighths of an inch in diameter, and longer in the vertical direction; its surface was studded with bright red, healthy granulations. The ulceration was treated in a variety of ways for one and a half months without producing the slightest benefit. Grafting of mucous membrane was then resorted to in the following manner: A small fold of mucous membrane was stripped off from the side of the vaginal wall, and was cut in two. The granulations on the ulcer having been scratched below and to the left of the os, the pieces were embedded in the granulations by means of an instrument used for tying deep sutures. Another piece of membrane was cut off and embedded in the granulations above the os. The speculum was left in position, and the patient kept on her back for an hour, at the end of which time a large tampon of cotton, moistened with pure glycerine, was placed against the ulcer, and the speculum was withdrawn. Strict quiet in bed was enjoined, and the tampon was removed the next morning. Five days afterward a pellicle of newly-formed mucous membrane was found to have formed from the three grafts. The remainder of the ulcer retained its red granular appearance. Three days later, the ulcer was all covered with new mucous membrane, except a narrow rim just above the external os. A fresh piece of vaginal mucous membrane was now placed in each external angle of the os and treated in the same manner as previously. When examined, a month later, the site of the ulcer was entirely covered by new mucous membrane.—*Archives of Medicine*, Dr. R. W. Amidon, April, 1879.

Supplementary Rectal Alimentation.—Rectal alimentation is indicated when there is an obstacle to the introduction of food into the stomach, or to its passage beyond the stomach; or when there is inflammation or ulceration of the stomach, causing ejection of the food; or when there is reflex vomiting to an extent sufficient to imperil life. It is also indicated in the condition known as *weak* stomach, which is usually the result of poverty of blood, due to hemorrhages, protracted suppuration, scrofula, phthisis, renal disease, etc. Insufficient nutrition forms an important factor in almost all these chronic diseases, and the use of rectal alimentation to supplement alimentation by the stomach furnishes a valuable addition to our resources in such cases. Various articles have been used, such as milk, raw eggs, animal broths, Leube's preparation of meat. Dr. Smith obtained much more valuable results from the use of defibrinated blood. In urgent cases, especially when the stomach cannot be called upon to perform its office at all, 30 to 90 grms. of defibrinated blood may be injected into the rectum every two or three hours. For chronic cases, in which it is merely given to aid stomach nutrition, 90 to 180 grms. may be given once or twice a day. An ordinary syringe may be employed, care being taken to cleanse it thoroughly after each injection. If the rectum is irritable, the blood should be gently warmed to the temperature of the body. Dr. Smith employed this measure in eighty cases. In two or three cases the rectum became so irritable that the injection was immediately voided; in about one-third of the cases more or less constipation occurred; in two cases the discharges were very offensive; in one case nervous irritability and insomnia were produced. Otherwise, the use of the blood was not attended by any ill-effects. About forty of the patients treated by Dr. Smith suffered from pulmonary phthisis. Marked benefit was obtained in about one-half of these cases, although nearly all had been previously treated with cod-liver oil, stimulants, tonics, quinine, etc. Quite a number of cases of simple anæmia were treated with excellent results in all, with the exception of one patient, who was suspected to be suffering from congenital arterial hypoplasia. The treatment was also found to work admirably in atonic dyspepsia, dyspeptic asthma, inveterate neuralgia, nervous exhaustion, etc.—*Archives of Medicine*, Dr. A. H. Smith, April, 1879.

Six Days Buried in a Mine.—Seven men were entombed six days in a Wilkesbarre coal-mine last week, and were rescued, alive and well, through a shaft which had to be sunk 1,200 feet for their relief. They subsisted on the flesh of a mule, which "agreed" with all but one, whom it caused to have diarrhœa. They had a good supply of air and water.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 10, 1879.

INSANE ASYLUM REFORMS.

THE appointment of a staff of attending physicians to the Hudson River State Hospital for the Insane, at Poughkeepsie, N. Y., is an innovation in asylum management which promises much good. On general principles we have maintained that the medical staff of our insane asylums is too small for the work that is expected of them. As a rule, the superintendent is the only person of the staff whose reputation and experience entitle him to the position as an expert and medical adviser for the insane. Strange as it may seem, he is the only one who does not see the patients regularly, that duty being left to his assistants, one or two in number, who are supposed to make regular visits daily. The function of the medical superintendent is more that of an architect, civil engineer, business manager, and farmer, than a practised clinician. This is the fault of our asylum organization, which considers hospital construction and everything pertaining thereto of paramount importance in the care and treatment of the insane. In order to meet all the requirements of what is understood as the duties of medical superintendent, the medical care of the patients must be more or less neglected. The cases are treated by wholesale, or left entirely to the assistants—the latter, as a rule, being young and inexperienced, and altogether too few in number to study the cases profitably.

As we understand the new plan as applied to the institution at Poughkeepsie, it is similar to that of general hospitals, with the exception perhaps that the chief executive officer is a medical man. This arrangement would place the organization of the hospital on a similar footing with the United States general hospitals which were in existence during the war, while an independent attending staff will give the institution all the clinical advantages of a metropolitan hospital.

Another benefit which the change will confer upon medical science will be a more thorough clinical study of insanity, by introducing new views, by instituting new methods of treatment, and by distributing the work among many workers, and thus enlarging the field of observation. Not the least of the advantages which may be gained by the new arrangement is the opportunity which may be given to the average medical student of studying insanity in the wards of an asylum, and of listening to clinical lectures upon the same by his professor. Of course, in regard to this point we can only speak in a general way, presuming that the change in the Poughkeepsie asylum may be adopted in institutions nearer home and more accessible to students. The attending staff of the asylum in question is unexceptionably good, made up of representative men, who will, no doubt, take every advantage of the situation, and solve, if possible, one of the most important problems of asylum management.

MEDICAL REFORM IN GREAT BRITAIN.

THE demand for reform in medical education and kindred matters, although not so urgent as with us, is by no means confined to this country. The centralized and too paternal methods practised in France, which give to the University of Paris a monopoly of medical education, began some time ago to excite much complaint there; and this has lately resulted in giving some meagre privileges to the provinces. In England there are just now several reformatory measures on foot, the adoption of which is being attempted by the profession. It may be remembered that in Great Britain the state has very little to do with the regulation of medicine. It attempts only to furnish an authentic list of qualified practitioners, and to define the minimum of qualification which will entitle a physician to be put upon this general register. These two things it does through the agency of a General Medical Council—a body consisting of twenty-four persons, selected partly by the crown, but chiefly from the large universities and the medical colleges. There are nineteen medical corporations in Great Britain which can license a person to practise. These corporations all compete with each other for students; and their requirements for a degree or license, although there is a prescribed minimum, vary much with the different institutions. So that practically it is a quite notorious fact that, if a student is apprehensive of failure before one examining board, he will slip off to another which gives easier terms. In order to remedy this evil, it is proposed that there be a conjoint board of examiners, made up from the various medical schools, and that this board be empowered to examine and give licenses to those whose qualifications are found to exceed a certain minimum. There are further details which complicate the matter, but into which we need not enter. The project has this advantage, that the minimum qualification cannot be a very

high one, certainly not so high as that already adopted by some of the best schools, although higher than that of the poorer ones. The conjoint board scheme, however is, on the whole, pretty generally approved by the medical press and public.

A second trouble which disturbs the British mind is the composition of the General Medical Council. This now represents chiefly the medical colleges rather than the profession at large, and it is accused of being a corporation organ, a partisan and inefficient body. It is very strongly urged that there be a direct representation of the profession among its members, and the proposal is no more than reasonable. But the Medical Council has recently voted that things are best as they now exist, and the profession at large is not strong enough in Parliament to get a law passed changing the composition of the body in opposition to its influence and vote of self-approval. There is a feeling against it, however, which will undoubtedly result in securing the desired change in course of time.

A third project of reform is one in regard to quacks and impostors. There is now practically no law against such parties, and some legislation is sought by which they may be suppressed. However desirable such a measure might be, it is not likely that any remedy will be obtained during the present session of Parliament, so that the herb-doctors, dynamic physicians, and specialty men are likely to continue flourishing for a time longer. It may be some satisfaction to Illinois to know that it is ahead of England in this respect.

In regard more particularly to medical education, there is frequent complaint that the students are deficient in preliminary qualifications, and that the course of instruction is not long enough. Although there exist regulations requiring a certain amount of general education before matriculation, we imagine that, like similar requirements in this country, they do not amount to much, and the idea of a prospective student being rejected on account of deficiencies in this particular is never seriously entertained. This higher preliminary education is one of the things which is universally agreed to be very desirable, and in this pleasing unanimity the matter rests, while blockheads continue to matriculate and take out tickets at the regular rates. And so it will continue in England, as with us, for a long time to come.

The course of study covers forty-five months, of which thirty must be spent at a medical college, and, during the time, two examinations be passed. The project of extending this course from four years to five, as in Germany, or to six, as in Italy, is one that has been strongly urged, but firmly and successfully opposed; and if the English system were like ours we should be inclined to doubt its advisability. For four years spent in hanging over text-books and sitting through didactic and clinical lectures, things which make up the American students' education, would be quite as much as the average mind could tolerate. The facts thus accumulated would need to be vivified by experience and practical work among the sick and injured. Under the English system, however, such practical applications of theoretical knowledge are being constantly made to a greater or less extent. Every student is obliged to act as ward clerk, assistant dresser, or in some similar position, sufficiently unpretentious but undoubtedly useful in bringing him into direct contact, medically and surgically, with disease. Five years of this kind of study, therefore, might be valuable, as it seems actually to be in Germany. But it would be necessary for us to change our "system" as well as lengthen our course. Indeed, the idea of the American student ever being obliged to devote himself to five years of useful and practical study is beyond the dreams of the most hopeful optimism.

It may be a useful, though a somewhat melancholy task, to contrast the deficiencies, often enough harped upon, among us, with the comparatively trivial ones about which the British medical profession is agitating itself.

The latter asserts that it needs a change in the composition of the General Medical Council, the establishment of conjoint examining boards, legislation against quacks, and a higher preliminary education.

Our deficiencies, as summed up by Dr. Pepper, are: a strict examination preliminary to matriculation; personal training in the practical branches; a regular grading of the curriculum; an examination for candidates for degree by those not pecuniarily interested in the success of the candidates. And we can add that we also need protection against quacks and impostors as well as against those numerous diploma mills and corporate advertising bodies which exist under the name of medical colleges.

Salicylate of Soda in Gout.—In a letter published in the *Jour. de Méd. et de Chir.*, a physician of forty years' standing gives his personal testimony to the value of salicylate of soda in gout. He had been subject for twenty years to attacks of gout, rheumatism, and sciatica, which came on several times every year, and were sometimes exceedingly violent. His urine was very often loaded with uric acid, and several of the joints of his feet and hands were immovable from gouty concretions. He began the use of salicylate of soda in August, 1877, and has continued it ever since, without a single day's interval. Since then he has had no attack either of the gout, the rheumatism, or the sciatica, and his urine has never presented the brick-dust deposit so often observed previously. His joints also have regained a certain degree of mobility. He takes 15 grains of the salt with each meal, except in the heat of summer, when he reduces the dose to 30 grains per diem. He drinks about a quart of wine a day, but dilutes it with carbonic acid water, to which 30 to 45 grains of bicarbonate of soda are added.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting April, 9, 1879.

DR. J. W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

AMPUTATION OF THIGH FOR KNEE-JOINT DISEASE.

DR. WYETH presented a specimen of disease of the knee-joint removed by amputation of the thigh, from a boy aged ten years. He saw the patient for the first time in 1876, when there was present a severe inflammation of the knee-joint with flexion of the leg. An extension apparatus was applied with the effect of strengthening the limb, and at the end of a few months afterward the patient was able to walk. Unfortunately he received an injury from a fall, when the old trouble in the knee revived and increased until there was disorganization of the joint and its surroundings, with extensive infiltration into the neighboring muscles. All hope of saving the joint having been given up, amputation was decided upon In order to make the section through sound tissue, the amputation was made in the middle third of the thigh. Dr. Wyeth thought that the latter was the better course, inasmuch as the suppuration was very profuse and the child was not in a condition to tolerate much subsequent discharge from the stump. In conclusion, he exhibited the joint, which showed osteitis of the condyles of the femur, erosion of the articular cartilages, and a pulpy condition of the synovial membrane, with fibrinous exudation of the capsule. He wished to know whether or no the disease commenced in the synovial membrane.

AMPUTATION THROUGH INFLAMED AND INFILTRATED TISSUES.

DR. SHRADY thought that the disease originated in an osteitis. In regard to amputation of the thigh, he believed the rule to save as much of the femur as possible was a good one, even if it were necessary to make the section through soft tissues involved in suppuration. He had performed two weeks previously a supra-condyloid amputation of the thigh for disease of the knee-joint, in which the entire anterior skin-flap was infiltrated with fibrinous exudation and contained numerous sinuses. The flap took on a healthy appearance in a few days, the skin became of a natural color and suppleness, and there was no sloughing at any point.

DR. BRIDDON believed that the disease originated in the articular extremities as an osteitis, the joint becoming secondarily involved by erosion of the cartilages and subsequent pulpy degeneration of the synovial sac. He did not think that there was any danger in using, for flaps, skin that was infiltrated or contained sinuses; in fact, the real risk was in making the section of the thigh high enough to clear them. Every inch of the femur which was sacrificed added to the risk of the patient. In every case where there was a choice between using an unsound flap or making a section of the bone higher up to clear it, he should always be in favor of the former. In fact, in the majority of cases these infiltrated flaps do better than the ordinary ones made through sound integument. In his experience the suppuration from the sinuses very soon disappeared.

DR. POST stated that there was a certain amount of quasi-reparative action in infiltrated flaps which helped to explain the reason why they healed so kindly. In this connection he referred to the practice of Dieffenbach, who prepared flaps for transplantation by undermining them two or three weeks beforehand. Under the circumstances the capillaries of the part became enlarged, and were better prepared to take on reparative action than when merely healthy tissue was used.

DR. HOWE did not think that the cases were parallel ones. In one healthy skin was raised from the cellular connections for eight or ten days, while in the other inflammatory processes over years had infiltrated the skin with purulent matter, produced ulcers, and in every way made it unfit as a covering for a stump.

OLD PELVIC PERITONITIS; CHRONIC CYSTITIS; URETERITIS AND PYELITIS; PERIURETERITIS; PERINEPHRITIS; CHRONIC INTERSTITIAL NEPHRITIS; PYONEPHROSIS (LEFT); PYÆMIC INFARCTIONS OF LEFT LUNG; CROUPOUS PNEUMONIA (RIGHT); CEREBRAL CONGESTION; MITRAL STENOSIS; FATTY HEART.

THE above is a statement of the numerous pathological lesions found at the autopsy of a German woman, 37 years of age, who died under care of Dr. Beverley Robinson, in the Penitentiary Hospital, B. I., on April 5th, at 11.40 P.M. The previous history of this patient is but little known. Prior to her decease she had been in the hospital twenty-six days, and shortly before the date of admission she had had a convulsion. She was suffering from a vesico-vaginal fistula, which allowed her urine to dribble away from her so soon as it entered the bladder. There was marked pain over the epigastrium, loss of appetite, and constipation. She was anæmic and much emaciated. Her temperature was about normal.

A careful examination of the chest gave negative signs (statement taken from ward-book). The condition of the urine was not examined.

I saw the patient for the first and only time on April 5th, about seven hours before she died. At that time I was informed she had taken little nourishment during the past two days, and even that little she had in great part vomited. Patient had been in a state of hebetude all day, and craving water to drink. The pupil of right eye was contracted, the left pupil was covered by a staphyloma. Pulse 96, very feeble, extremities cold, and general temperature sub-normal. There was no sensation when a pin was imbedded in the skin of the hands. There was moderate subsultus; tongue dry and coated; respirations shallow, but of normal frequency. Upon a rapid and imperfect physical examination but few physical signs were revealed; still it was thought probable that both lungs were in a condition of hypostatic congestion, rendered obscure by the state of collapse, in which the patient was at the time of my visit. The mental hebetude was presumably due to cerebral œdema; cause unknown. The prognosis was of course pronounced imminently grave.

At the post-mortem interesting lesions were found in the lungs and kidneys, which I here offer to your consideration.

The lower lobe of this right lung, you perceive, is completely consolidated by croupous pneumonia, apparently in the gray stage, and from its surface of section a thick, tenacious, puriform liquid can still be scraped. In other portions of the lung there are evidences of emphysema, œdema, and congestion. The bronchi are inflamed. At the origin of the pulmonary artery is seen a large clot extending itself into its branches. This is not to my eye altogether a thrombus. There appears to be a sort of central spot of different and pinkish coloration, about which the

white fibrin has deposited. Taken in connection with the condition observable in the left lung at the autopsy, this has additional significance. Here there were several large hæmorrhagic infarctions, limited, however, to the lower lobe. In different portions of the entire lung are hard nodules, which present on section "a yellowish white granular surface, from which on pressure a puriform fluid can be squeezed" (pyæmic infarctions).

The entire upper half of left kidney has become an abscess, containing yellowish pus mingled with cheesy material. The remaining portion of the cortical and medullary structure present the lesions of chronic interstitial nephritis. The entrance of the left ureter into the bladder is blocked with a small white calculus. Behind this obstruction a narrowed ureter with thickened coats is seen. The pelvis of left kidney is dilated and its lining membrane much thickened. Bladder is contracted. The mitral orifice of the heart is markedly stenosed.

To microscopical examination the right lung gave the following results: "large quantity of pus cells in the inflammatory exudation, a few epithelial cells, no fibrin, a very few red blood-corpuscles, and an immense number of bacteria. The chief peculiarity about the lung was the large quantity of mucus."

Inasmuch, also, as upon close examination the consolidation was neither strictly lobar nor yet lobular, it was extremely difficult to classify it among the types of croupous or catarrhal pneumonia.*

ENCHONDROMA OF PAROTID REGION.

Dr. A. C. Post exhibited an enchondroma which he had removed by operation from the region occupied by the parotid gland. The tumor was exceedingly hard, was firmly attached, and extended down deeply behind the ramus of the lower jaw. Its relations to large cervical vessels was so close, that it was considered prudent to make the chief incisions behind. After working about an hour the tumor was separated sufficiently from its connections to be seized by a vulsellum and turned upon its axis. In so doing the end of the styloid process was snapped off and removed with the growth. Dr. Post believed, notwithstanding that the tumor occupied the locality of the parotid gland, it was not a growth from that organ. His reasons for such a view were that neither the external carotid artery nor the facial nerve were encountered in the operation of extirpation of the tumor.

THE RELATIONS OF THE EXTERNAL CAROTID TO THE PAROTID.

Dr. Wyeth remarked that it was the rule that the external carotid artery should perforate the parotid, but that rule was by no means absolute. Morton speaks of the external carotid as making only a groove in the gland, and Dwight says that the artery does not enter the gland from below, but on the inner side, at a point which is variable.

Dr. Post stated that he once undertook the removal of a tumor, which he had no idea was one of the parotid. He found, however, on coming down upon its deeper surface, that there was a contraction behind the jaw and then an expansion of the growth. Carrying on the dissection further, the external carotid artery and facial nerve were encountered. The patient lived a year afterward, and died of cancer of the internal parts. Dr. P. also alluded in this connection to another case which was similar in regard to the existence of a tumor of the parotid. When he found the latter to be the case, he concluded not to proceed with the operation. When the patient recovered from the effects of the anæsthetic he was informed that the tumor was not removed, because in so doing the facial nerve would be injured, as well as one of the large arteries of the neck, and that there would be an inability to close the eye of that side, with probable loss of the organ.

PARALYSIS OF FACIAL IN THE REMOVAL OF THE PAROTID GLAND.

Dr. Briddon stated that within the past six months a tumor of the parotid region was removed at the Presbyterian Hospital. After the removal of the growth, the part that should have been occupied by the parotid was empty, but as neither the external carotid nor the facial nerve were encountered in the dissection, it was concluded that the parotid gland was not involved. Notwithstanding this state of things, the patient suffered from paralysis of the orbicularis palpebrarum, and was consequently unable to close the lid of that side.

Dr. Shrady remarked that the paralysis did not occur until four or five days after the operation, and was probably due to pressure upon the trunk of the nerve, the result of inflammatory processes.

Dr. Briddon thought that the paralysis did not show itself at first because of œdema of the lids.

BONY ABSCESS IN MIDDLE OF TIBIA.

Dr. Post presented a second specimen, which consisted of a disc of the anterior wall of the tibia removed by operation for abscess of that bone. The patient was a boy aged eighteen years. Two years ago he received a contusion of the leg, followed by severe and deep-seated pain. The latter condition existed until two months before the operation, when an inflammatory swelling appeared a little above the middle of the tibia. This swelling went on to suppuration. The abscess was opened, and a probe being passed into it went entirely through the tibia to its posterior wall. Several days afterward the bone was trephined, when a bony cavity, four inches in length in the middle of the tibia, was laid open. The abscess occupied the whole circumference of the medullary cavity and was surrounded by eburnated bony tissue. The interest of the specimen was in the extreme rarity of bony abscess in that locality. A third specimen by Dr. Post consisted of the astragalus and os calcis removed by exsection from a girl aged sixteen years. The patient had suffered for some time with abscess of the ankle-joint, associated with sinuses and rough bone. The principal disease was found to be in the synovial membrane and articular cartilages between the two bones referred to. The disease in the lower portions of the bones of the leg was very slight. The operation was performed by the sub-periosteal method.

TUMORS OF FOREARM.

Dr. Howe presented a tumor of the forearm which he had removed by operation from a patient in the St. Francis Hospital.

The tumor occupied the upper four-fifths of the ulna and involved the periosteum, flexor profundus digitorum, flexor carpi ulnaris, pronator quadratus, ulnar artery and nerve, all of which were removed except their upper and lower attachments. The lower portion of the tumor contained a hard mass resembling bone. The patient was a seamstress, aged 21, of good habits, and without any hereditary disease. The tumor commenced nine years previously at the upper end of the ulna. It gave her no pain, and did not inconvenience her in the least. Three years subsequently a sec-

* This opinion is that of an expert in microscopy.

ond and separate tumor appeared at the wrist-joint. For four weeks the tumor seemed to grow rapidly and give her pain. The fingers were flexed, so that their ends reached the palm of the hand, and she could not extend them. The thumb retained all its power and the index finger was also capable of some considerable movement. The removal of the tumor was performed under Lister.

Dr. Howe stated, in conclusion, that Dr. Shrady, who assisted in the operation, was of the opinion that the tumor was a periosteal sarcoma.

Dr. Briddon did not see anything in the specimen which favored such an opinion.

Dr. Howe was not prepared to say what was the nature of the growth.

Dr. Shrady remarked that the specimen was much altered in its general appearance since its removal. He stated that he had made a careful examination of the case before the operation, and made the diagnosis of a periosteal sarcoma, which involved the ulna, deep flexors of the forearm and the pronator radii quadratus, extending across the latter muscle and being attached to the radius. The operation proved the diagnosis to be correct as far as the attachments of the tumor were concerned. Except the period of its growth, it presented clinically all the features of a sarcoma. The gross character of the growth, and especially the appearance of osteoid tissue in the substance of the tumor, confirmed such an opinion. He regretted that no microscopical examination of the tumor had been made.

Dr. Post referred, in this connection, to a specimen which had been taken from an old case of hip disease, and in which there was a deposit of bone developed in the midst of the neighboring soft parts, and unconnected with any of the bones of the skeleton.

On motion, the specimen of tumor of parotid region presented by Dr. Post, and of tumor of the forearm, presented by Dr. Howe, were referred to the committee on microscopy.

The Society then went into Executive Session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 17, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

CATARACT EXTRACTION, WITH A STATEMENT OF TWO HUNDRED AND FIFTY CASES.

Dr. C. R. Agnew read a valuable and interesting paper, and offered for the consideration of the Academy a tabular statement of two hundred and fifty consecutive cases of cataract extraction, with such comments as seemed to him to be the fruit of the experience which they afforded. One hundred and eighteen of the number had already been published, while one hundred and thirty-two had not heretofore been tabulated. He brought the cases altogether in order that a broader basis might be made for such animadversions and deductions as naturally followed from their consideration. Of course we all desired to know what was the best method for the removal of a hard cataract, and what was the prognosis in such operative interference. In considering the question of cataract extraction it was difficult to generalize, unless we did it upon a basis of a very large number of cases. Ever since von Graefe had given us the method of modified linear extraction, the danger of failure to give improved vision in cataract cases had steadily lessened whenever ophthalmic surgery was intelligently practised. He thought it might be safely said that the danger of total loss might be stated as being considerably less than *ten* per cent. In the group of 118 cases already published by him the percentage of failure to restore vision was 9½ per cent. In the group of 132 cases the percentage of failure to restore vision was 8$\frac{1}{33}$ per cent. Combining the results of the two groups there was a percentage of failure to restore vision of 8$\frac{4}{5}$ per cent. Dr. Agnew thought that the more obvious lessons which those cases taught might not be without value as helping to show us what to do or what not to do in our immediate practice. The more experience he had, the more his confidence increased in the comparative value of that method for the removal of hard cataract which was known as *Graefe's modified linear method*. By that he meant the method which consisted essentially in the removal from the eye of the crystalline lens, without its capsule, by making an incision upward in the margin of the cornea, and removing by an iridectomy that opposing portion of the iris which laid in the way of the easy delivery of the lens. In common with most, if not all surgeons, he made a wound, the edge of which extended about a millimetre back from the margin of the clear cornea, while at least three-fifths of its entire extent was distinctly in the clear cornea, but bordering upon its opaque edge. The position of the wound differed decidedly from that which Graefe first selected, and for a most excellent reason that it kept away, throughout the greater portion of its extent, from the limbus of the cornea and the ciliary region, thus lessening the danger of disastrous ciliary irritation and inflammation—the danger which Graefe soon discovered and shunned. The knife he used resembled more nearly that sold as Liebreich's than the one employed by Graefe. It was a very narrow, straight bistoury, which, by its narrowness and thinness, could be easily propelled through the corneal tissue, encountering the minimum of resistance, and being most easily directed in the manœuvre necessary to make a sufficiently large and clean corneal wound. To hold the eyelids open he used Graefe's silver-wire speculum. He usually gave the patient ether to profound anæsthesia, taking all precautions to lessen the danger of vomiting. To steady the eyeball he used the ordinary fixation forceps, applying them as closely as possible to the margin of the cornea exactly opposite the place where he intended to make the corneal wound.

THE CORNEAL INCISION.

Considerable art was required to make the cut just where it should be. He usually divided the cornea into four zones by drawing five imaginary lines. One passed through the centre of the pupillary space, with two above and two below. The upper and the lower lines just grazed the clear corneal edge, while the others were exactly intermediate. He commenced his incision usually about a millimetre from the clear edge of the cornea, upon the intermediate line. The instant the point of the knife entered the anterior chamber he directed it downward and forward until it reached the centre of the field of the pupil, going on in the plane of the iris, but avoiding its tissue. He then passed the knife onward, giving to its point a curved direction upward, and made the counter-puncture on the intermediate line at a point as nearly as possible opposite the wound of entrance or puncture. That manœuvre made the dimensions of the wound in the anterior chamber as large as the outer edge of the cut would seem to indicate, and the ends of it sharp and clean, and less likely to ensnare the

cut edges of the iridectomy. As the knife, in making the counter-puncture, emerged beneath the conjunctiva of the limbus, it was well to give it a somewhat quick thrust in order that the aqueous humor might not follow into the subconjunctival space and burrow there before the conjunctiva was pierced. In completing the corneal wound he endeavored to have three-fifths of its extent distinctly in clear cornea, approaching the opaque edge and yet its central portion, one-half a millimetre at least, from it. He thought that a wound made throughout in the opaque cornea or the limbus did not heal so well; moreover, he had seen ugly and even disastrous trouble set up in the ciliary region by carrying the entire wound in the limbus. He was very imperative on the necessity of having the wound large enough for the easy delivery of the lens. An insufficient wound was the worst possible defect in a cataract operation.

THE IRIDECTOMY.

In the iridectomy the iris should be coaxed out of the anterior chamber by a little gentle pressure with the horn-spoon over the upper ciliary region. It was better that the iris should prolapse than that the iris-forceps should be introduced into the anterior chamber. If, however, the desired prolapse of the iris could not be produced in that manner, the forceps could be introduced. Usually the amount required was removed by three snips of the scissors. The aim should be to leave a clean-cut coloboma without jagged edges or any tags of iris in the corneal wound.

LACERATION OF THE LENS-CAPSULE.

The next step in the operation was the laceration of the lens-capsule. It had been proposed to deliver the lens capsule and all without laceration, but he had not been so favorably impressed by what he had read and seen as to be induced to try that method. The best that could be said for it was that it did not necessarily always cost a loss of the eye.

With reference to division of the capsule, he thought the practice had commonly been to use the cystotome freely and to break up as much of the anterior capsule as possible without coming in contact with the uveal surface of the iris too freely. He had never been able to convince himself that any considerable portion of the anterior capsule could be invariably cut out by any method of concurring incisions. He had, therefore, always contented himself with such a free division of that portion of the anterior capsule as extended from below the axis of the lens upward to its periphery, and sideways to the edges of the cut iris. Lately, acting upon a suggestion made by Dr. Knapp, he had confined his work with the cystotome more to the mere peripheral portion of the capsule, opening the sac of the lens along its upper and anterior edge, taking care not to lacerate the suspensory ligament or to open the vitreous chamber. That operative procedure was first suggested and done by Dr. Gruening in Morgagnian cataract, and Dr. Agnew thought the method was a most substantial addition to the extraction manœuvres. It might be true that a secondary operation might be very frequently necessary to break a hole in the capsule which would become more or less opaque, but such a procedure was extremely common after the older method of free division of the capsule at the time of the operation.

PRELIMINARY IRIDECTOMY.

For a year or two he had resorted quite frequently to a preliminary iridectomy, hoping by so doing to lessen the number of total losses after extraction. His experience had led him to believe that it was of value in exceptional cases only, or when we had more than usual reason to dread accidents at the time of the extraction operation, or certain bad after-complications.

At present he was in favor of the preliminary iridectomy: 1. In cases of known or gravely suspected fluidity of vitreous humor; 2. In cases of extreme marasmus, when the nutrition of the eye was very doubtful; 3. In cases in which an anæsthetic could not be used, and in which the patient had *no* self-control, or when from extreme deafness the surgeon was unable to command quick obedience on the part of the patient; 4. In cases of extensive pterygium or chronic conjunctivitis; 5. In some cases of synechia, anterior or posterior; 6. In cases of partial staphyloma.

MINUTE DETAILS OF THE EXTRACTION OPERATION.

Dr. Agnew then referred to certain minute details which he regarded as of the utmost importance, such as thorough removal of lens-crumbs by manipulating the cornea with partially closed eyelids; moistening the surface of the cornea if there was the slightest suspicion that its epithelial covering was growing dry; aiding the delivery of the lens by a little pressure on the eyeball, over the upper scleral lip of the corneal wound; bringing forward the lens by well-directed pressure with the horn-spoon, so that the nucleus and critical portion could be delivered together. Those difficulties would be at their minimum if the corneal wound was large enough.

THE USE OF ATROPIA AND ESERINE.

At one time Dr. Agnew thought it best to dilate the pupil with atropia before extracting the lens, but had discontinued the plan. He had not seen any reason for instilling eserine before the extraction, but on the contrary some cogent ones against its use at that stage —among others, that it now and then induced much irritation of the eye and active hyperæmia.

THE AFTER-TREATMENT.

Dr. Agnew then gave a somewhat detailed account of the after-treatment of the patient, such as related to covering the eye, and the general hygienic and medicinal management of the case. So long as the tarsal edges of the eyelids remained natural in appearance, not being in the slightest degree reddened or swollen, the scleral conjunctiva only moderately injected, the cornea clear, and the anterior chamber neither muddy on the one hand, nor too clear and too deep on the other, and the iris changed but little from the color of that in the fellow-eye, and the reflex from the pupillary field was either clear and black or only a little milk-and-water looking from the presence of a few thin crumbs of cortical lens matter, we might remain at ease. Usually, little after-treatment was required of a surgical kind, however, and we simply had to meet inflammation in some one of its acute or subacute forms. He felt, however, that after having done a good clean extraction through a sufficiently large corneal wound, we might, as a rule, content ourselves by vigilant inactivity.

METHOD OF APPLYING COLD TO THE EYES.

His method of applying cold to the eyes was by means of pieces of muslin that had laid for some time upon a block of ice.

When atropia caused irritation, duboisia should be substituted for it.

STATEMENT OF RESULTS IN THE GROUP OF 132 CASES.

By Graefe's method there were 80 successes, 11 partial successes, and 8 failures.

By Graefe's method, with preliminary iridectomy, there were 22 successes, 2 partial successes.

By Liebreich's method there were 6 successes and 2 failures.

By Le Brun's method there was 1 failure.

The successes were, 81$\frac{27}{33}$ per cent.; partial successes, 9$\frac{8}{33}$ per cent.; and the failures, 8$\frac{1}{33}$ per cent.

STATEMENT OF RESULTS OF THE WHOLE 250 CASES.

By Graefe's method there were 146 successes, 20 partial successes, 15 failures, and 3 unknown.

By Liebreich's method there were 21 successes, 2 partial successes, and 6 failures.

By Graefe's method, with preliminary iridectomy, there were 22 successes and 2 partial successes.

By Le Brun's method there were 4 successes, 2 partial successes, and 1 failure.

By the flap operation there were 6 successes.

The successes were 79$\frac{3}{4}$ per cent.; partial successes, 10$\frac{3}{5}$ per cent.; failures, 8$\frac{4}{5}$ per cent.; and unknown, 1$\frac{1}{2}$ per cent.

Further analysis was read, after which Dr. Agnew gave a detailed report of two cases of unusual interest, and which illustrated the value of certain steps in the operation. Special reference was made to beneficial results following the administration of large doses of calomel [fifteen to twenty grains], when there was reason to believe that the vicinage of the blood-vessels was occupied by lymph-cells.

The paper being before the Academy for discussion,

Dr. H. Knapp remarked that on nearly every point he agreed with the author of the paper. The corneal section was the same he had practised for a long time. He thought Dr. Agnew was a little too severe in his criticism on the operation of

REMOVAL OF THE LENS IN ITS CAPSULE.

Besides some disadvantages, the operation had one remarkable advantage—and that was, that it did not produce iritis. There might be loss of vitreous, opacities in the vitreous, and perhaps also the results might not be so lasting; but there were quite a number of perfect results obtained from that method in hands which were practised in its performance.

INFLAMMATORY REACTIONS.

With regard to inflammatory reactions following cataract extraction, he fully agreed with Dr. Agnew, that the greatest liability to them came from *too small* a corneal section. When that section was sufficiently large, almost all the other steps in the operation were easy. The section of the iris should be thorough, and care should be taken that it did not become wedged into the edges of the wound. So long as the sphincter edges were not cleanly in the anterior chamber there was danger.

EXCISION OF A QUADRANGULAR PIECE OF THE LENS-CAPSULE.

Dr. Knapp referred to the various methods of opening the lens capsule with the view to avoid inflammatory reaction, and remarked that for about ten years he had practised excision of a quadrangular portion of the capsule, but even then reaction processes had been distinct. He thought it best to open the capsule as little as possible. He then gave the results obtained in 461 cases of cataract extraction which he had performed in Heidelberg, and in 360 cases in which he had performed the operation in the city of New York. Among the 461 cases there were 33 failures, and among the 360 cases there were 36 failures. The capsule was opened at the periphery in 67 cases, and of these there were 4 failures. Of the whole the failures amounted to only eight and nine per cent.

Dr. Roosa remarked that while the statement was perhaps entirely correct, in one aspect, that there had been a steady increase in success since the introduction of von Graefe's modified operation, he doubted if the statistics of large eye infirmaries, where there were a number of operators, had shown that any extraction operation had been made so easy that the results were much better than those obtained from the old flap operation, and without iridectomy. He had always thought, notwithstanding his profound regard for von Graefe, that too much credit had been given to him for this operation. He thought Graefe's operation as simply and practically a change of the old inconvenient knife to one which was convenient, with a little different manner of making the incision. He believed that the millennium of cataract extraction would not be seen until the day arrived when the lens could be removed entirely with its capsule. Until that could be performed successfully, and performed without iridectomy, the highest degree of success would not be obtained. Just how that was to be done he was hardly able to suggest. The operation of iridectomy marred the beauty of the eye, and it was with pride that he referred to the cases in which Dr. Agnew, years ago, operated by the old method, and the patients came from the operation with a circular pupil and vision undisturbed.

PERIPHERAL SECTION OF THE LENS-CAPSULE.

Dr. Gruening remarked that he was the first to introduce the peripheral section of the capsule of the lens. It was never performed or suggested by von Graefe, even at the time when scooping out the lens was recommended. Dr. Gruening then gave an account of the step which led him to the adoption of that modification, particularly for the extraction of a Morgagnian cataract.

Dr. Thomas R. Pooley thought it desirable that a better word than that now employed for peripheral laceration of the capsule should be found. With reference to the cases in which Dr. Knapp had made the operation by this new method, he had assisted in the performance of very many of them, and had been surprised at the very few in which there was subsequent reaction of any kind whatsoever. In the cases in which the quadrangular laceration was made, certain forms of reaction occurred quite frequently, but there was a striking absence of iritis. With reference to the preliminary iridectomy, he directed Dr. Agnew's attention to a remark he had formerly made to him, that one of its advantages was, that about the region of the cicatrix was set up a hyperæmia which was favorable to the healing of the cataract section that was to follow.

Dr. Holcombe agreed with Dr. Roosa regarding removal of the lens without removing a portion of the iris, and asked Dr. Agnew with reference to the proportion of his cases in which vomiting followed extraction of the lens, and its explanation.

PREPARATORY TREATMENT.

Dr. D. Webster remarked that he had assisted Dr. Agnew in most of the last series of extractions, and their experience had shown that, as a general rule, it

was better not to delay an operation for the purpose of placing the patient upon a course of preparatory treatment.

Drs. Hutchinson of Utica, and Matthewson of Brooklyn, were invited to participate in the discussion, but, owing to the lateness of the hour, declined to make any remarks.

Dr. Agnew, in closing the discussion, remarked that all agreed with regard to the apparent mutilation of the eye by the removal of a portion of the iris, but he believed that reliable statistics showed better results than were obtained by the old flap operation. He thought the statistics made before Graefe's time were not so reliable as those which had since been accumulated. The percentage of total loss was from three to four per cent. less since von Graefe suggested his improved method than formerly.

With regard to Dr. Pooley's question, he had not lost his confidence in the procedure.

The Academy then adjourned.

SURGICAL SECTION.

Stated Meeting, April 8, 1879.

Dr. Stephen Smith, Chairman.

PARALYSIS FOLLOWING FRACTURE OF CORACOID PROCESS OF SCAPULA.

Dr. James L. Little reported a case of fracture of the coracoid process of the scapula from very slight injury, which was followed by complete paralysis of that side of the body.

TRAUMATIC RUPTURE OF ULNAR NERVE—PROPOSED OPERATION.

Dr. L. Weber reported a case of rupture of the ulnar nerve. He had proposed to operate by cutting down and tying the ends of the nerve together.

Dr. A. C. Post regarded the proposed operation as a feasible one, and one which he should not hesitate to perform.

DYSENTERY—STRICTURE OF INTESTINE—LUMBO-COLOTOMY.

Dr. Post reported a case of ulceration and stricture of the rectum resulting from severe dysentery, in which he had performed the operation of lumbo-colotomy with favorable results.

ABSCESS TREATED BY HYPERDISTENTION.

Dr. Post also reported several cases of abscess which had been treated by Callender's method, or by hyperdistention, with good results. In one case the patient passed into a condition which Dr. Post regarded as due to carbolic-acid poisoning. An account of the case has appeared elsewhere [see Record, April 19, 1879, p. 378].

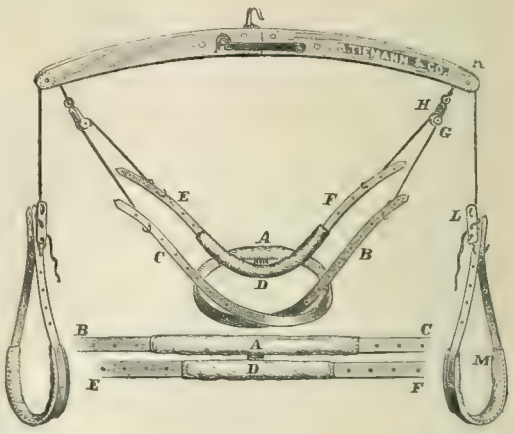
NEW INSTRUMENTS.

Mr. Stohlmann exhibited a large number of new instruments, and among them was

AN IMPROVED SUSPENSION APPARATUS,

devised by Dr. W. C. W. Glazier, which is illustrated in the adjoining woodcut, and bears the following description:

It consists, like Dr. Sayre's apparatus, of a cross-bar, a head-piece, a sling for each arm. The latter, attached by a buckle (L), are connected with the head-piece by a cord which passes over a pulley (K) in each end of the cross-bar, so that the weight is equalized. One end of this cord is attached to a pulley (H), through which passes a second cord (G) that is attached by hooks to the head-piece, so as to allow a backward and forward motion of the head, thus equalizing the pressure between the chin and occiput, or enabling the patient to rest the whole weight coming on the head-piece, on the chin, or the occiput at pleasure.



The head-piece consists of two padded straps (A B C, D E F, lower figure), of unequal length, fastened together at A D by a thin piece of metal bent at right angles, very like the ordinary four-tailed bandage used in fracture of the lower jaw. It is applied in a like manner, with the exception that the ends, instead of being tied, are attached to the hooks on the cord (G), which passes through the pulley (H), the longer one crossing behind the occiput, after passing outside of the shorter one, over the angle of the jaw and mastoid process.

The suspension apparatus is applied in the following manner:

Holding the apparatus before you, attach the short strap (E D F) of the head-piece to the hooks on the end of the short cord farthest from you. Stand behind the patient, slip the arms into the arm-slings (M M), and attach the cross-bar to the elevating apparatus by the hook; pass the head-piece in front of the patient's face, resting his chin on the short strap at D. The middle of the long strap (A) is now in *front* of the chin, the two ends of which (C B) are brought behind the occiput, crossed, and attached to the hooks at the other end of the short cord.

Small patients, in struggling from fright, are very apt to allow the arm-slings to slip to the bend of the elbow. This does no harm, as they invariably flex the forearm, thus holding on in spite of themselves. It is possible that this may be the best position for the arm-slings, as the pressure in the axillæ is often very disagreeable. The cross-bar of this apparatus is 0.50 m. between the bearings of the pulleys, and is the right length for a child; for an adult it should be from 0.75 m. to 0.80 m. in length. The advantage of length is that the strap (E D F) thus becomes more nearly horizontal, thus preventing pressure on the sides of the face, by holding away the strap (B A C), which would otherwise press too heavily on the jaw.

Metropolitan Throat Hospital.—This institution has removed to 314 East Forty-fifth Street. The building, which is large and commodious (the gift of a well-known citizen), has been altered and thoroughly adapted to its present purposes.

CHICAGO MEDICAL SOCIETY.

Regular Meeting, April 21, 1879.

(Reported for The Record.)

THE TREATMENT OF HEMORRHOIDS BY INJECTION.

Prof. Edmund Andrews, President of the Society, read a paper on this subject.

He had corresponded with a large number of itinerant doctors—many of them the veriest quacks—who had practised this method of treating hemorrhoids, with many scientific surgeons who had used the method, and had asked through notices in medical journals for information on the subject, in response to which he had received many letters, some of them containing valuable information. By these means he had gathered statistics of over 3,000 cases treated by injection. He had no doubt that within nine years 10,000 cases had been so treated in this country.

The process seemed to have been the invention of a travelling charlatan of Illinois, in 1871. Afterward a large number of itinerants appeared; some of them had been regular physicians, who left their homes and practice, with the hope of making their fortunes by this new discovery; but most of them were quite ignorant of the science of medicine. The secret was sold to any who would buy, sometimes for large sums.

The substances generally used had been carbolic acid and olive-oil. Later, glycerine had taken the place of olive-oil. Some used the pure acid; others one part of the acid to 20 or 30 parts of the excipient. Ergot had been added by a few. Two used creasote, and two persulphate of iron.

The amount of fluid injected at one time had varied from 3 to 30 drops.

He had accounts of 3,295 cases treated by injection. Nine were said to have died from the effects of the treatment, but five of these were so imperfectly reported that he was not certain they could justly be charged to it; the other four were authentic. Five cases of dangerous hemorrhage occurred, 5 of hemorrhage less dangerous; 10 cases of abscess; 23 cases of sloughing (generally of not much more than the pile itself); 8 cases of suspected embolism of the liver; 1 case of abscess of the liver; 2 of severe inflammation; 2 of stricture of the rectum occurred; while 77 patients had violent pains lasting sometimes for several days; 6 were dangerously sick in bed from two to six months, and one had permanent impotence. One injection caused severe carbolic-acid poisoning.

Of the nine deaths, one was from a large abscess, fever and pyæmia—death occurring on the fifth day (the patient having previously been healthy); another was from apparent embolism of the liver—the liver was torpid, constipation existed, jaundice occurred, glands in the groins and axilla enlarged, and death from asthenia ensued nearly three months after the operation.

One patient was 84 years old, and the injection appears to have been made into the prostate gland. Death resulted in three days. Another case in a younger patient had a similar history and death.

The plan had been pursued by some of tearing open the hemorrhoidal veins with needles. In one case so treated severe suffering came on, and the family adviser being sent for, he found the opening made by the needles stopped with a small cork, which, being removed, the pain ceased.

The operation by injection was not painless in more than about one-quarter of the cases.

Of 3,000 cases, one in sixteen was known to have suffered some disaster, varying in severity from severe pain to death.

Large injections were more likely to produce embolism, abscess, and sloughing, but there was no proof of embolism of any other organ than the liver having occurred.

Strong injections of concentrated substances were liable to the same dangers, except as to embolism.

Pain depended on the locality of the injection; most pain was produced when the medicine was introduced near the verge of the anus. He had found the fear of embolism to be the chief objection practitioners had to trying the operation.

He thought the operation a proper one for certain cases. His conclusions were as follows:

1. The material to use is carbolic acid in oil or glycerine—1 part to 10, 20, or 30. If glycerine is used, morphine, chloral, or iodoform may be added as an anodyne. The dose for each injection should be 2 to 4 drops, and the interval between repetitions 4 to 10 days.

2. The surface of the pile should be protected by an application of some oil, as vaseline, before the injection is made, so that any leakage of the material may not cauterize the surface. The injection should be made very slowly; a very sharp needle should be used. The latter should not be withdrawn for some minutes after the fluid is forced in, lest leakage should take place.

3. Use this treatment for internal piles only, and inject only one pile at a time. Keep the patient in bed eight to ten hours after the operation, to avoid hemorrhage.

4. The rectum may be firmly tamponed above the hemorrhoids before the injection, to prevent the possibility of hepatic embolism, the tampon being allowed to remain twenty-four hours; but this measure is hardly necessary when small and weak injections are cautiously introduced.

Finally, he said the operation was not as safe or eligible as that by the ligature, but with caution was as good as any other method except the latter.

Correspondence.

A REPLY TO "NONNE."

To the Editor of The Medical Record.

Sir:—In your issue of May 3d there appears a communication signed by "*Nonne*," who, by insinuation, makes grave charges against me. For those who know my views and actions upon the principles involved in the letter, it will appear in a proper light; but for those numerous members of the profession who read the Record, and who are not personally acquainted with me, I must pronounce those implied charges absolutely false and slanderous.

In conclusion, I call upon "*Nonne*" to abandon the protection of his alias, and to publish his name.

Yours truly, E. C. Seguin.

New York, May 6, 1879.

REPORT OF FOUR BAD CASES OF PYOTHORAX

Cured by Free Incision and the Use of Drainage-Tubes.

To the Editor of The Medical Record.

Dear Sir:—During the last year there has occurred in the practice of my father, Dr. John Burke, and myself, some cases of pyothorax, of which the four last were successfully treated by the above method. The cases are as follows:

Case I.—Mary Q., æt. 18. After being in the coun-

try but a short time was taken with scarlet fever. In this disease she was attended by Dr. Burke; I seeing her but once. During her convalescence from scarlet fever she again fell sick, this time with pleurisy of the left side. In spite of all efforts, the fluid that distended her left pleural sac would not be absorbed. She was aspirated. It filled again. Aspiration was again resorted to, and this time the fluid contained pus. Patient's condition very low. Pulse 130. Respiration a short time after second aspiration unusually rapid. Temperature 103½° F. I now saw the case with my father. A free incision was contemplated, but we aspirated again. This time a thin pus was contained in the pleural cavity. This relieved her for a few days. We felt she was rapidly sinking. We resolved to make a very large incision. It was accordingly done. A quantity of sloughy tissue came away. A drainage tube was inserted, and the cavity washed out with a solution of carbolic acid. Patient's temperature fell from 104° F. to 100° F. Appetite better. Pulse from 120 to 130 fell to 100 to 105.

For about two months the girl's condition improved. The cavity was washed out, in the beginning, twice daily with a fountain-syringe, and as the quantity of pus diminished, once daily sufficed for washing. During this period I injected the cavity with tr. iodinii, liq. iod. co. and strong solution of carbolic acid, but in vain; I never could sensibly diminish the amount of purulent discharge. Finally, without my efforts, discharge ceased for a week. I withdrew my tube. But unfortunately the cavity filled again. Again was it opened, and finally after two more months our patient was sent home to Ireland with the tube in place. Here she improved rapidly; discharge ceased, and the tube was withdrawn. Eight months after, patient was in good health and working on a farm.

Case II.—I. M., æt. 32, who was a hard drinker, contracted pleurisy of right side. The usual treatment employed. After a time, fluid failing to be absorbed, in spite of tonics, diuretics, and blistering, it was withdrawn with an aspirator. This was repeated three times, when Dr. Burke perceiving the patient's condition to be desperate, made a free incision and inserted drainage-tube. Temperature fell immediately, and appetite slowly returned. The cure was effected after the usual manner in four months. The only remarkable thing in connection with this case was the slipping of the drainage-tube into the cavity of the pleura, where it remained for three weeks, when one morning, after a prolonged fit of coughing, it was expelled, with a larger tube which had been inserted in its place.

Case III. was that of a child two years of age. Pleurisy of left side. It was aspirated three times, when, pus occurring in the fluid, a free incision was made. The little patient, who before was almost in articulo mortis, became much better. A cure was effected after six months.

Case IV. was also a child, aged eight years, whose condition became suddenly alarming, due probably to a change in contents of pleural cavity. Temperature before operation was 105° F.; pulse 165. Respirations extremely rapid. The aspirating needle was inserted on the left side, below the lower angle of scapula, but, as a thin pus exuded around the needle, it was decided by my father and myself to make a free incision. About a quart of pus and sloughy tissue was discharged. The minutiæ of this case are unimportant. The child rapidly recovered, and is now going about, two months from operation, with tube in place. A little oakum bandaged over the mouth of tube preserves his clothes from being soiled. In conclusion, I must say that I believe many patients are lost through hesitancy in opening into pleura when the indications point to a purulent fluid. The operation, even in desperate cases, is not very hazardous to life; though I may state that, called in consultation to do this operation some time ago upon a child, it perished some short time after from shock. I must excuse myself in this case, as I feel convinced that an earlier resort to the free incision would have saved the child's life. Under the circumstances, however, I would again resort to the operation. I think that, previous to Mr. Lister's improvement in surgical dressings, most surgeons would have hesitated about putting a large drainage-tube into the pleural cavity. I think in some extreme cases the old plan was to introduce either a plug of oakum or sheet lint. The consequence was, that the pus did not escape freely, and the success of the operation was not as it is now. If I could, in these cases, have conveniently employed Lister's method, I think I might have shortened the period of convalescence.

Martin Burke, M.D.

147 Lexington Ave.

VENTILATION OF HOSPITALS.

To the Editor of The Medical Record.

Dear Sir:—I was recently called professionally to attend the veteran ventilating engineer, Prof. J. Wilkinson, of Baltimore, Md., who has spent the past three years in the Northwest in supplying, for a variety of purposes, the system known as sub-earth ventilation, which has of late been introduced in Prussia and other countries of Europe. The system has been in use in this and adjoining States more than two years, and is said to have proved *par excellence*. I have frequently heard of the remarkable results attained by its use, but had not familiarized myself with the detail of construction necessary, or the scientific principles involved in the system, until I formed the acquaintance of Prof. W., the inventor of it.

It has been mainly used, hitherto, in structures for the manufacture of dairy products, for which it has proved to be admirably adapted.

Confidently believing, as I do, that the system is superior to any other for hospital buildings, I wish to present it to the attention of the medical profession, for which I desire to avail myself of the columns of the Record, believing that to be the most useful and efficient medium of laying it before the largest number of the most intelligent medical practitioners.

I will describe the appliances used, and the results attained, which latter, I think it will be conceded, are just what constitute essential characteristics of all structures for human occupancy, and more especially of those that are to be the houses of the sick and demented.

Buildings are supplied with air by means of a subterranean air-duct placed in a stratum of earth in which the temperature is uniform perpetually. Both entrances of the duct are open: one to receive atmospheric air from the most salubrious point available, through a well or shaft with the bottom of which the duct connects; the other to discharge and distribute said air to all the apartments to be tempered and ventilated.

The supply of air is regulated by adjustable valves, and any required volume of it may be supplied to a building at the same temperature as that of the earth in which the duct is placed.

This uniform temperature in the air supplied is unaffected by the extremes of temperature in the external air, and is perpetually about 50° F.

The walls of the duct being of a lower temperature than that of the outer air in warm weather, when air is liable to contain an excess of humidity, it is condensed on the walls, and is absorbed by the clay bottom with which the ducts are constructed, and the air is delivered to the building in an anhydrated condition.

In case it is desirable to retain any of the humidity with which air is charged, this is secured by the use of a plurality of ingress shafts properly distributed along the line of the supply-duct, by the adjustment of valves in which air properly tempered and with variable degrees of humidity may be obtained. Additional devices for deodorizing and disinfecting to a still greater degree than that secured by the clay surfaced bottom of the duct have recently been invented and tested by Prof. W., and found to possess superlative potency, and their hygenic value is believed to be so great that an application for a patent for them will soon be made.

The walls of the duct being moistened by the condensation of vapor on them, they effectually arrest all dust, pollen, and motes floating in air, transmitted by the duct as it is now used. The duct has invariably proved to possess the power of removing ozone from the air.

Dairy scientists contend that ozone annually occasions a loss to the dairymen of the United States and Canada of hundreds of thousands of dollars. The effect of it on milk set for butter-making is, I am reliably informed, so disastrous that it has the effect, every summer, and several times during the same season, to reduce the amount of cream obtained from a given quantity of milk from 35 to 60 per cent. I believe that a substance in air, capable of precipitating acidification and the action of ferments to such a degree as does ozone, must materially augment the insalubrity of said air, and that means for its removal from air will add an invaluable factor in methods for securing the greatest degree of salubrity in the atmosphere of human habitations.

This system of ventilation is in use in central Mississippi, and is said to be very satisfactory.

It has occurred to me that it might prove well adapted to ventilating quarantine and yellow fever hospitals, for which I hope it will be tested ere that unwelcome visitor again appears in its favorite localities.

C. M. JOHNSON, M.D.

HARVARD, ILL.

SEDATIVE ACTION OF CALOMEL.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The Committee of Antipyretics of the Therapeutical Society having under inquiry the sedative action of calomel, the following six cases have been submitted as illustrative of such action. Contributions of a like character from other members of the society will make all that relates to the question interesting, and tend to draw upon the private case-books of the profession at large for facts that belong to either side, affirmative or negative.

The sedative action of calomel is not so much a debatable point as the claim that is made that calomel, in certain doses, is potential as a cardiac sedative, *without being at all a depressant*. Tartar emetic is powerfully and promptly sedative, but it is, at the same time, dangerously, or, at least, distressingly depressing to the vital powers. If calomel is ever depressing, it is so when any drug having a sedative action would, in the nature of things then existing, be also depressing if exhibited instead of calomel.

The few cases here presented serve to show the actively sedative effect of calomel, wherein depression was not only a sequel of its action, but immunity from that condition was necessary for the safety of the patients.

These few cases, dating back to 1874, are selected because they are the very first, in my observation and practice, in which calomel had been called into requisition for other than its local action upon the liver and intestines, or its general alterative or supposed blood-depurating action if exhibited in minute doses long continued. I am conscious how unmethodically these cases were studied, which would not have been the fact had I realized at the time how novel, useful and bold was the method of treatment, and how much I should afterward prize my experience. To Dr. James R. Leaming is due my initiation into the practice which utilizes a previously unconsidered property of calomel, when given at certain times in certain doses.

I find the new lesson of value in a great variety of cases wherein the leading condition, in the early stage, is great vascular excitement, as shown by turbulent heart-action, excessive arterial tension, and bounding force of circulation, even before pyrexia is established.

To those who recall what I have published in the journals on scarlet fever, diphtheria, etc., it will be seen that mere observation through later years has not impaired my trust in the sedative action of calomel. The cases are as follows:

I. *Endopericarditis.*

II. and III. *Spasm* and threatened mania.

IV. *Irritative* (or nervous) *fever.*

V. and VI. *Gastric fever.*

CASE I.—The little daughter of Mr. M., of Forty-seventh street, about eight years old, was attacked in May, 1874, with acute inflammatory rheumatism, attended by violent cardiac symptoms. The case was in the practice of Dr. Leaming, but for convenience I was delegated by the doctor to attend, while he made occasional visits for observation and counsel.

During the 27th, 28th, and 29th of May the suffering was excessive whenever any suspension of the anodyne ("Dover's powder") was allowed. Notwithstanding the very liberal use of alkaline medicines and the opiates, the heart's action, on the 29th, increased to such a tumultuous state, the pulse became so bounding, and the temperature was rising so rapidly—to say nothing of the pain, which was only partially allayed—that an immediate consultation was called. Dr. Leaming requested me to write for grs. xv. of calomel, which, as soon as procured, was given, with a few grains of sugar, dry, upon the tongue. In less than one hour the whole aspect of the case changed.

Patient ceased to be fretful and restless. The heart, though revealing by the peculiar *bruit* its endocardial and pericardial inflammation, was, however, quieted almost to the normal state. The pulse was tranquil, the skin moist, and temperature cooling. Hours of refreshing sleep ensued, and after that the treatment which had been interrupted was resumed, with no further important hinderance during the progress of the case. The action upon the bowels was so slight that it was never known when a calomel stool had occurred, and there was no ptyalism. This case was in some respects a revelation to me.

CASES II. and III.—In the autumn of 1874 a young man, æt. 20, had disgraced himself by some act of deception, and thereby forfeited his situation in business. The remorse and mortification were so great that he became melancholy and neglected himself.

After a few days he developed symptoms that threatened to be maniacal. This state terminated suddenly in convulsive spasms, which were repeated at various irregular intervals, as often as twenty or or thirty times a day for three days before I was called to see the patient. I found great perturbation of the heart's action and a violence of arterial pulsation that indicated the need of a quick and efficient sedative.

I had in mind Case No. I. so promptly relieved under conditions of vascular energy not very dissimilar.

I administered at once hyd. chlorid. nitrate grs. xx., dry upon the tongue, and had the satisfaction of seeing an immediate suppression of all spasmodic symptoms, a quieted heart and pulse, a tranquillized mind, and a disposition to sleep. During the three days of violent recurring spasms I ascertained that it took two or three men to keep the patient in bed, and to restrain his frenzy sufficiently to prevent his doing himself an injury, and each fit would last from ten minutes to an hour.

Case III. was nearly the counterpart of the one just described. It was a young woman taken with hystero-epileptiform convulsions, due to disappointment and constipation. She had fifty or sixty convulsions in twenty-four hours—some of brief duration, others nearly half an hour, and one or two an hour long. Between the paroxysms the mind wandered and insanely quarrelsome tendencies developed, everything giving offence, and anger was excited over imaginary opposition. Without any apparent tendency in the case toward cessation of the convulsive spasms, and while the cardiac and vascular excitement was raging up to the highest point of endurance, I was enabled, by one xv. grain dose of calomel, to instantly allay every morbid symptom and put the the patient to sleep, which lasted, with comfort and refreshment, for five or six hours.

There was no impression upon the bowels that might not have been due to any mild cathartic, as only one medicinal stool occurred about eight hours after the dose was taken, and that without pain or sense of exhaustion.

Case IV.—A boy, twelve years old, jumped out of a wagon without sufficient deliberation, as he was detected by the driver stealing a ride, and was frightened by some threat. He sprained his ankle so badly that he had to be carried to his home near by. The day after the accident I was called in. He had been allowed to go unattended by any physician since he was hurt until I saw him, and, consequently, was suffering great local inflammation and very high fever. I sought to reduce the temperature and the force of the circulation by cooling drinks, febrifuge medicines, and soothing local applications. I partially succeeded, but found in a few hours these symptoms returning, with a tendency to delirium. I gave a powder of calomel and dry sugar upon the tongue, not less than fifteen grains (as I had it with me, and measured it out myself), and in less than an hour the heart was beating with normal rhythm and force, the delirium was no longer threatened, skin moist and cool, and patient disposed to sleep. No unusual peristaltic action occurred from the calomel.

Cases V. and VI.—These two cases were associated, occurring in sisters, aged respectively seven and nine years. They had made for their amusement some form of infusion that they called "tea," and, having consumed it, were very soon vomiting and retching with great violence and persistency. A neighboring physician gave lime-water and milk, and bismuth subnit., and finally succeeded in allaying the vomiting; but both children were found by me on the following morning to be in a state of nervous irritability and towering fever. The hypogastrium was tender and painful upon pressure, with a tendency to a renewal of the vomiting whenever anything was given by the mouth. I thought of my sedative dose of calomel, and, having given each child xii. grains dry upon the tongue, soon had the pleasure to see the flush of febrile excitement pass off, the pulse fall to the normal frequency and fulness, the skin to react in the physiological direction, the stomach to lose its irritability, and the repose of sleep to ensue. No relaxation of the bowels occurred in either case.

These results, as a matter of course, were so unexpectedly good, and apparently so free from any harm, that they became suggestive of a wide range of possibilities in conditions that require prompt sedation without depression.

Geo. Bayles, M.D.

37 W. 48th Street, April 11, 1879.

HYDRIODIC ACID.

A Substitute for Iodide of Potassium.

To the Editor of The Medical Record.

Sir:—Seven years ago, while with my father, at that time practising in Chester, S. C., I found that he was using hydriodic acid in place of iodide of potassium. The case that suggested its use was one of asthma; for many years the patient had suffered from this troublesome affection. Whenever she contracted an ordinary cold it would extend to the chest and cause at once persistent asthma, which, if left to itself, would last for weeks. A full dose of morphia would relieve the spasmodic and labored respiration, and large doses of iodide of potassium would remove the bronchitis in a short time. Often the iodide would irritate the stomach and seriously interfere with digestion. To get the best effects it was necessary to give from fifteen to twenty-five grains of the iodide three times a day. Hydriodic acid was prepared by mixing one drachm of iodide of potassium with ninety grains of tartaric acid, and dissolving in four ounces of water. On trial it was found that one teaspoonful of this mixture had as much influence on the bronchial surfaces as twenty grains of iodide of potassium, and produced no bad effect whatever on the stomach. The only difficulty was, that the simple solution soon decomposed and set free the iodine; to obviate this it was mixed with a very heavy syrup, and when properly prepared it made a clear solution which could be kept several days without showing much sign of decomposition.

Gaseous hydriodic acid (HI) is rapidly and perfectly absorbed by water, but being held by a feeble chemical affinity the hydrogen soon becomes disengaged and sets free a corresponding amount of iodine, which, being soluble in hydriodic acid, passes into solution, colors it red, and renders it too irritating for internal use. As 100 parts of hydriodic acid consist of $99\frac{22}{100}$ parts of iodine and $\frac{78}{100}$ parts of hydrogen, it will be seen that it is nearly all iodine, and when not decomposed it is entirely non-irritant and pleasantly acid to the taste. To make the syrup it requires care, and most drug shops will get up sufficient decomposition in the mixing to render the solution useless. Several months ago I sent for R. W. Gardner, of 170 William Street, New York, whose syrups of the hypophosphates I had used with much satisfaction, and suggested that he would try and prepare a syrup of hydriodic acid. He succeeded in making a syrup containing forty minims of the dilute acid to the ounce,

representing 6.72 grains of iodine, which corresponds to 8.75 grains of potass. iodi., which keeps perfectly. Two teaspoonfuls of the syrup is an average dose.

I have had some patients that could not take even very small doses of iodide of potassium, or iodine in any form, without producing severe iodism. Some of these cases gave distinct accounts of active poisoning, others seem to have the idiosyncrasy show itself with the first dose of iodine. Other patients easily bear 25 grs. potass. iod. three times a day, for weeks at a time. In the use of hydriodic acid I have seldom found it necessary to increase the usual dose to get the desired effect. It would seem that iodide of potassium becomes active by being converted into hydriodic acid.

For the past six years I have had uniformly good results in the use of hydriodic acid in bronchitis, and in chronic or subacute cartarrhal diseases. I have found that it acts as an irritant, and does more harm than good during acute febrile stages. I have also used it in chronic malarial poisoning, and in Graves's disease, and would recommend its use in place of iodine in goitre and adipose tumors. In a case of the latter it relieved the dull pain about the tumor and reduced the weight of the body slightly (the patient being very fleshy). I have not used hydriodic acid in syphilis long enough to give an opinion as to its value in this disease.

The text-books on therapeutics do not even mention hydriodic acid, and the *National Dispensatory*, edited by Alfred Stillé, M.D., and John M. Maisch, Ph.D., says: "Pharmaceutically, hydriodic acid is a very unsatisfactory preparation." "It possesses no medicinal value."

W. GILL WYLIE, M.D.

19 W. FORTIETH STREET, NEW YORK, March 26, 1879.

New Instruments.

THE METRO-CLYST, OR INTRA-UTERINE IRRIGATOR.

By JOHN S. COLEMAN, M.D.,

AUGUSTA, GA.

THE interesting communication in THE MEDICAL RECORD for March 8, 1879, on "The Treatment of Hemorrhage in Abortion," by Dr. W. T. Lusk, recalls a device mentally evolved by me some months since.

The instrument consists of a wire frame and rubber tubing, and has recently been made for me by Messrs. John Reynders & Co., of New York. For its name, I am indebted to my erudite friend, Dr. A. Sibley Campbell.

Though this instrument was originally devised solely for the use of tinc. of iodine in the treatment of hemorrhage in abortion, I confidently present it to the profession as an invaluable aid in the treatment of many of the diseases of the cavity of the uterus; viz., chronic endometritis, suppurating fibroids or polypi, putrescent fœtal remains, and in many instances where antisepsis is required. In cases of abortion, with subsequent fœtid discharge, I have used with good results Battey's "iodized phenol" and Emmet's applicator.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 27 to May 3, 1879.

GIRARD, J. B., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Davis, Tex., relieving Asst. Surgeon Woodruff. S. O. 83, Dept. of Texas, April 21, 1879.

HALL, J. D., Capt. and Asst. Surgeon. Assigned to duty at Fort Griffin, Tex., relieving Asst. Surgeon Powell. S. O. 83, C. S., Dept. of Texas.

WOODRUFF, E., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Stockton, Texas, relieving Asst. Surgeon Hall. S. O. 83, C. S., Dept. of Texas.

BROWN, P. R., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Shaw, and assigned to duty at Fort Bennett, Dak. T. S. O. 39, Dept. of Dakota, April 22, 1879.

MERRILL, J. C., 1st Lieut. and Asst. Surgeon. Assigned to duty at Fort Shaw, M. T., relieving Asst. Surg. P. R. Brown. S. O. 39, Dept. of Dakota, April 22, 1879.

POWELL, J. L., 1st Lieut. and Asst. Surgeon. When relieved, to report in person at these Headquarters for further orders. S. O. 83, C. S., Dept. of Texas.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 3, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Apr. 26, 1879.	0	6	178	3	43	43	0	0
May 3, 1879.	0	6	191	0	39	32	0	0

MEDICAL SOCIETY OF NEW JERSEY.—The annual meeting of the Medical Society of New Jersey will be held in the Palisade House, Englewood Cliffs, on Tuesday evening, the 27th inst., and will continue in session the following day. Steamers will be in readiness at Pier 34, or Twenty-fourth Street, North River, New York, on Tuesday afternoon, to convey all physicians and their families who may wish to attend the meeting, free of charge. Steamer Idlewild will leave at 3.30 o'clock, and steamer Chrysolenah at 4 o'clock.

WM. PIERSON, Jr., Sec'y.

ORANGE, May 1, 1879.

RESOLUTIONS ON THE DEATH OF DR. HAYS.—At a meeting of the Philadelphia College of Physicians, held on April 15th, to take action with reference to the death of Dr. Isaac Hays, the following resolutions were unanimously adopted:

Resolved, That the Fellows of the College deeply regret the death of their late able and distinguished associate, Dr. Isaac Hays.

Resolved, That having in view the welfare of the college, he took throughout his fellowship a watchful and active part in its proceedings; and, while health

and vigor permitted, was unusually constant in his attendance at its meetings.

Resolved, That as a member of the Building and other committees, and by his general participation in its affairs, he rendered signal service to the college, contributing greatly to its prudent and conservative policy, and leaving upon all that he said or did the impress of his cautious and deliberative mind.

Resolved, That he has largely contributed by his long and able editorship of the *American Journal of the Medical Sciences*, and by his other valuable works, to the creation and diffusion of a sound and healthful medical literature, and thus made himself, in an enviable degree, an instructor and benefactor of his profession.

Resolved, That by his faithful services of twenty years in connection with Wills Hospital, and by his various publications on ophthalmic surgery, he gave a wholesome impulse and direction to that department, and won for himself a distinguished place among the oculists of the country.

Resolved, That the Fellows, appreciating his learning and his worth, and grateful for services cheerfully rendered during his long and pleasant association with them, will ever cherish a kind and affectionate regard for his memory.

In moving the adoption of the resolutions, Dr. Samuel D. Gross made some remarks eulogistic of Dr. Hays, speaking of the *American Journal of the Medical Sciences*, of which he had been for so many years the editor, as a monument of his industry and learning, no word in which was unworthy of the highest conception of the functions of the editorial chair. He said that regret for the great loss of Dr. Hays in his office was, however, not a little mitigated in that his mantle had fallen upon a worthy successor, his son, Dr. I. Minis Hays, who, full of energy and ability, promises to continue the *Journal* in its long career of success.

RICHARD A. CLEEMANN, M.D.,
Secretary of the College.

UTERINE AND VAGINAL APPLICATIONS—DR. Suesserott, of Chambersburg, Pa., writes: "Long familiar with the almost magical effect of a thick cream of subnit. of bismuth, mixed in pure glycerine, when applied to blistered surfaces, burns, and ulcers externally, as well as the soothing and curative action of the salts of bismuth in ulceration of the stomach, I conceived the idea of using it in ulceration of the cervix uteri. A sufficient experience in that direction has convinced me that the result is no less wonderful than when externally applied. This may possibly be no new suggestion to some of your readers. But, acting on the principle of 'proving all things, and holding on to that which is good,' I would earnestly urge upon all gynecologists, who are not fully satisfied with what they are now using. to give it a trial and report through the columns of your excellent journal. I have used a thick glycerole of tannin, dry tannin, glycerole of aloes, and the various astringent, sedative, and escharotic substances that have, from time to time, been suggested; but there is no one thing that I have applied that gives as much immediate relief as the subnit. of bismuth and glycerine. The congestion of the cervix is at once abated by the glycerine through the exosmotic action that is set up, and the ulcers disappear as though waved away by a fairy's wand.

"If this article is not already too long you may append my method of making vaginal applications, which I will endeavor to illustrate. I have a glass tube, a little longer than, and sufficiently small to pass into, an ordinary reflecting glass speculum. I take a pledget of absorbing cotton, on to which I have tightly looped a cord of sufficient length to project beyond the vulva, when the cotton is in contact with the womb. Having passed the cord through the tube, I draw the cotton in to the extent of an inch or two, so as to have sufficient space for whatever quantity of bismuth and glycerine, tannin, aloes, or whatever I am about to introduce within the vagina. The speculum having been properly applied, so as to bring the ulcerated surface within view, I next insert the tube, with its contents, within the speculum, and with a wire-probe, armed with a disk of metal about three-fourths the diameter of the tube, I press the cotton to its place, withdrawing the tube and holding the application *in situ* until the speculum is partially removed. As soon as the walls of the vagina fall over the cotton, the probe may be taken away and the medicament is just at the spot desired. My custom is to allow it to remain for thirty-six or forty-eight hours, when the cotton is easily removed by means of the cord by the patient herself. After removal I recommend an injection of a saturated solution of borax or slightly diluted whiskey, once or twice a day for two days, when I make another application. If the pledget of cotton is too large it will not remain in place as well as a smaller one; but this must be determined by the judgment of the operator. A glass rod would serve a very good purpose in pressing the cotton out of the tube, and where certain articles, such as tinct. of iodine, have been used, would be better than metal. Its liability to fracture in handling is the only objection that could be urged."

NORTHEASTERN DISPENSARY—REPORT FOR THE YEAR 1878.—This report shows an increased amount of work done by this dispensary. The number of cases treated during the year was 21,438, an increase of over a thousand upon last year. The dispensary treats, therefore, about one-twelfth of all the cases that apply for aid to these institutions. About 3,000 of the patients were treated at their homes, each receiving an average of three calls from the visiting physician. Only ninety-three vaccinations were made during the year, the remarkable freedom of the city from small-pox accounting probably for the few applicants for such relief. A new class for nervous diseases has been established, and this, with the increased number of patients, has caused a small deficit in the treasury.

MORTALITY OF SCARLATINA AMONG THE TENEMENT-HOUSE POPULATION.—Dr. D. W. Perham, one of the district physicians to the Northeastern Dispensary, gives some statistics in regard to scarlatina among the tenement population, which, considering the surroundings, show a surprisingly light mortality. In 104 cases treated during the past winter there were eight deaths. Of these two were from scarlatina maligna, three from acute nephritis, and one from asthma caused by a submaxillary abscess. The youngest patient treated was seven months old. Most cases were treated with M. ij. tr. digitalis every two hours, and M. iv. tr. ferri chlorid., with gr. iv. potas. chlorid. every two hours, the medicines being alternated. If this medication was followed up very vigorously, we feel it our duty to compliment the constitution of the average tenement-house child. There were given also, if the fever indicated it, sulphate of cinchonidia in five-grain doses, twice a day. No applications to the throat or skin, and no alcoholic stimulants were used. The statistics are much to the doctor's credit.

Original Lectures.

THE PERSONAL IDENTITY OF THE LIVING AND OF THE DEAD.

TWO LECTURES DELIVERED BEFORE THE CLASS IN THE AUXILIARY DEPARTMENT OF MEDICINE.

By JOHN J. REESE, M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE AND TOXICOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

(Reported for THE MEDICAL RECORD.)

LECTURE II.

THE IDENTIFICATION OF THE SKELETON CONTINUED: 1. ITS AGE; THE ORDER OF DEVELOPMENT OF THE FIRST SET OF TEETH THE DEGREE OF OSSIFICATION AS A MEANS OF IDENTIFICATION—THE PRESENCE OR ABSENCE OF CERTAIN TEETH; 2. ITS SEX; 3. ITS STATURE, WITH A DISCUSSION OF THE SO-CALLED "RULES OF PROPORTION" AS LAID DOWN BY DR. GOULD AND BY M. DE ST. LUCA THE EXISTENCE OF FRACTURES, DEFORMITIES, AND CALLUS AS MEANS OF IDENTIFYING A SKELETON, ETC., ETC.

If the only part of the skeleton which is discovered is the *skull*, there can be no difficulty, usually, in recognizing it as human; the only possible doubt might arise about its belonging to one of the higher orders of apes. This mistake, however, could scarcely occur to one versed in comparative anatomy.

The question whether, from the examination of a skull simply, it is possible to decide to what *race* the individual belonged—Caucasian or otherwise—I do not think can be answered with certainty. Doubtless, well-marked *typical* skulls may be identified as belonging to some particular race, *e. g.*, the Negro or Caucasian; but we must remember that these points of distinction shade away, in many instances, so as to make it extremely difficult, if not impossible, to give a medico-legal opinion in an isolated case.

Another point to be noticed here is the importance of ascertaining whether all the bones submitted for inspection belong to one and the same skeleton. The mere fact of their being discovered together does not necessarily prove it, since they might have been so placed designedly for the purpose of eluding detection.

In the identification of the dead by means of the skeleton, or by detached bones, the three leading points to determine are the age, the sex, and the stature.

THE AGE AND THE ORDER OF DEVELOPMENT OF THE TEETH.

This can usually, in young subjects, be pretty accurately determined by the development of the teeth, and by the progress of ossification in the different bones. In the skeletons of newly-born children, and before the teeth have appeared, it may become important for the medical jurist to be able to decide upon the age, in order either to confirm or rebut a charge of infanticide. It is authoritatively stated that in the jaw of a child at full term there will always be found the rudiments of twenty-four teeth—twenty primary teeth and four permanent molars. Hence, if only the jaw of a child can be found, medical evidence may be given of its probable age. The average date of the eruption (or *cutting*) of the teeth, I would remind you, is as follows: The four central incisors appear in from *five* to *eight* months; the four lateral incisors in from *seven* to *ten* months; the four anterior molars in from *twelve* to *sixteen* months; the four cuspidati in from *fourteen* to *twenty* months; and the four posterior molars in from *eighteen months to three years* (Bell). Between six and seven years the jaws contain forty-eight teeth—twenty temporary ones, in a perfect state, and twenty-eight permanent ones in an imperfect state of development, and placed behind the temporary teeth, which they are to replace. According to Mr. Saunders, the order in which the permanent teeth appear is as follows: At *seven* years the four anterior molars; at *eight* years the four central incisors; at *nine* years the four lateral incisors; at *ten* years the four anterior bicuspids; at *eleven* the four posterior bicuspids; at *twelve* to *twelve and a half* years the four cuspids; and at *thirteen* to *fourteen* years the four second molars—making the whole number of teeth at this period to be *twenty-eight*. The four remaining teeth (*dentes sapientiæ*) do not usually appear until eighteen to twenty-one years of age. Generally, the teeth of the lower jaw are cut first. You must not forget, however, that some irregularities may occur in the appearance of the teeth: the above description is intended to apply only to the average cases. Now, let us take an example or two, by way of illustration. Suppose we were to discover the jaw of a child in which *twelve* permanent teeth were apparent—eight incisors and four molars; we should decide that the age was *nine years*. If the jaw contained *twenty-four* permanent teeth—eight incisors, four molars, eight bicuspids, and four cuspids—we might conclude the age to be *thirteen years;* and so on. Before closing this branch of the subject I have one other observation to make. There are two diseases which affect the growth of the teeth, viz., rickets and syphilis. In a rickety child the first teeth do not usually appear until after the twelfth month; whereas, in cases of congenital syphilis, the teeth appear before the sixth month, but have a very peculiar look. They are notched, and are apt to be brittle and to crumble easily.

THE DEGREE OF OSSIFICATION AS A MEANS OF ACCURATE IDENTIFICATION.

As already mentioned, the age of the skeleton is also indicated by the *degree of ossification*, especially in early life. According to Beclard, the extent of ossification in the lower epiphysis of the femur affords the most certain evidence of the age of the fœtus and of the new-born child. Thus, if no ossific point can be seen in this cartilaginous epiphysis, it is certain that the fœtus has not attained to the eighth month of utero-gestation. If the osseous deposit is as large as a poppy-seed, it is probably in the last month; and if it has acquired the diameter of a line and a quarter to one and a half, it has reached the full period. If the point of ossification measures three lines or more, it may be assumed that the child has lived after its birth.

The length of the skeleton of a new-born child is about sixteen inches (average). At the end of the *first* year, ossification has commenced in the extremities of most of the long bones; and this progressively advances from year to year, until the whole process is completed, and the epiphyses of all the long bones are united at full maturity, which in the male may be considered to be twenty-four years, and in the female twenty-two years. After this period, or when ossification is once completed, it is difficult to determine the age by an examination of the bones. It should be remem-

bered, however, that the different bones of the sternum do not unite until about the fortieth or forty-fifth year; and union between the sacrum and os coccygis is not usually completed until fifty-five to sixty years of age. In old age the bones become lighter in weight and more brittle, from the loss of their animal matter; they are also darker in color, and the flat bones become thinner from the absorption of their diploë. In the skull of the aged the sutures are more or less obliterated; and if the teeth have been lost, the alveolar processes become absorbed, and the appearance of the lower jaw undergoes a well-marked change, consisting in the widening of the angle at its neck, and a general rounding of the bone, which imparts the characteristic senile expression to the mouth of the aged. Now, the discovery of such a jawbone would positively determine the age to be about sixty years or over.

THE PRESENCE OR ABSENCE OF CERTAIN TEETH.

The presence or absence of certain *teeth* in the head has frequently been the means of determining the identity of the body. So also the presence of artificial teeth, with their mechanical appliances, has furnished the strongest corroborative evidence of such identification, as in the celebrated Parkman-Webster case, where the artificial teeth, discovered undestroyed in the fire in which the head had been burnt up, were positively identified by the dentist, who had manufactured and fitted them some years before. So, likewise, the remains of the Marchioness of Salisbury, discovered among the burnt ruins of Hatfield House, were identified by the jawbone having gold appendages for artificial teeth (Gay).

THE SEX OF THE SKELETON.

This can usually be determined from the skeleton, if entire, without much difficulty. I need not here go into a detailed description of the difference, well marked between the male and female skeleton; I refer you for these points to your instructions in anatomy and gynæcology. Suffice it to say, that the corresponding bones of the skeleton differ in size, strength, weight, and prominences. There are certain recognized differences in the head and thorax; but it is in the *pelvis* that the most characteristic differences are observed. The male pelvis is narrower and deeper than the female. In the latter the ossa ilii are flatter and more everted, giving the whole pelvis a greater capacity; the sacrum is broader and turned more backwards; the arch of the pubis much wider; the greatest diameter is the bilateral, whereas in the male it is the antero-posterior. The foramen ovale in the female is triangular; it is more oval in the male; the acetabula are farther apart in the female. It is understood that these peculiarities in the female pelvis are not exhibited until after puberty. From a fragment of a bone merely, I should judge that it would be hazardous to undertake to determine the sex; and the medical jurist should certainly exercise much reserve in giving an opinion in such a case.

THE STATURE OF THE SKELETON.

When the whole skeleton has been preserved, and none of the ends of the long bones have been lost by decay, the original height may be pretty accurately calculated by adding an inch and a half to two inches, for the soft parts, to the length of the skeleton. But even here, absolute accuracy cannot be attained, chiefly on account of variations in the curve of the spinal column in different individuals. Dr. Dwight assumes, as the result of numerous observations, that the total height of the intervertebral cartilages is 25.6 per cent. of the entire length of the spine.* As a collateral aid in estimating the stature, we may have regard to the generally accepted rule that the top of the symphysis of the pubes is about the centre of the body in average women; whilst in men, the centre is a little below the symphysis.

THE "RULES OF PROPORTION."

If only certain bones of the skeleton can be found, the estimate of the stature becomes much more difficult and uncertain. The so-called "rules of proportion" of the human body are not to be relied on here. In case of loss of the head, the rule laid down by Dr. Gould is "to find the height of the spine of the seventh cervical vertebra from the ground, and add to this 9.95 inches, which is the average height from this point to the top of the head."†

M. de St. Luca (*Cosmos*, Oct. 2, 1863, quoted by Dr. Taylor) states that an approximative estimate of the stature may be obtained by measuring the length of the first phalanx of the middle finger, thus: this phalanx is equal to one-fourth the length of the whole hand, including the carpus; the hand is one-fifth the length of the arm; double the length of the arm (or the two arms stretched out transversely), added to the length of the two clavicles, together with the breadth of the sternum, is equivalent to the height of the body. In applying this rule, however, we must not forget that the length of the hand, and especially that of the fingers, varies materially in persons of the same height; and so trifling a variation in the first phalanx of the middle finger as the one sixteenth of an inch, would, according to this method of calculation, figure up as great a difference in the total result as two and a half inches.

THE EXISTENCE OF FRACTURES, DEFORMITIES, AND CALLUS

in a skeleton, sometimes afford valuable aid in its identification, even many years after death. In relation to the production of *callus*, it is well understood that this substance is the product of the reparative inflammation of bones; and that its presence is a certain indication that some time must have elapsed between the injury and the death of the individual.

Some notable illustrations might be given of the identification of the skeleton by means of the above marks, and even of determining the actual cause of the violent death. In the year 1823, a soldier living in the south of France suddenly disappeared; and although there was a strong suspicion of his having been murdered, more than two years elapsed before the authorities interfered, and search was made for the missing man. Some human remains, chiefly bones, were discovered in the garden of the suspected murderer. Of course, it became necessary to identify this skeleton. It was remembered that the deceased had a singular personal deformity, in possessing a sixth finger on the right hand, and a sixth toe on the left foot. On examination it was ascertained that the fifth metacarpal bone of the right hand was shorter and broader than the corresponding bone of the other hand, and further, that there were two articulating surfaces on its digital end, indicating clearly the existence of a supernumerary finger. In the same way the fifth metatarsal bone of the left foot showed two distinct articulating faces on its digital extremity, in-

* The Identification of the Human Skeleton, by Thomas Dwight, M.D. Boston, 1878.

† Ibid.

dicating the existence of a supernumerary toe. Besides this, the age and stature of the skeleton corresponded with those of the missing man. But even further than this, a close inspection of the skull revealed the distinct marks of a depressed and radiated fracture of the temporal bone, which showed no sign of reparation by the formation of callus. Evidently then, death had occurred very soon after the fracture of the cranium, and, in all probability, as the direct result of violence.

An instructive case is mentioned by Dr. Taylor, of an Englishman who was tried in India for the murder of a native, who had been beaten by the former, with the alleged effect of breaking his rib and subsequently causing his death. A skeleton had been dug up three months after the decease, which was almost completely denuded of flesh, the bones clean and dry; *one rib fractured*, with a deposit of callus around the broken extremities. The identity of these bones with those of the missing man was attempted to be established, but unsuccessfully, in consequence of their dry and denuded state—a condition altogether incompatible with so short a period of time as *three months* since death. Moreover, the amount of callus thrown out made it evident that more than a week must have elapsed before death took place—and therefore supposing the bone to have belonged to the deceased, that this fracture must have been produced some eight or ten days before death.

Sometimes, on the exhumation of bones, the medico-legal question arises, how long have they been buried in the ground? It is impossible to answer this question with any precision, after all the soft parts have disappeared—which commonly requires about ten years. In a dry soil, the skeleton will resist decomposition for a considerable time; bones have been found in a perfect state thirty or forty years after burial. As decomposition in bones progresses, they become lighter in consequence of the loss of animal matter, and the color externally grows darker; the ends gradually become brittle and crumble away, and finally the shaft of the bone undergoes the same disintegration, the animal matter alone remaining unaltered. Denugie states that the bones of King Dagobert were found in a tolerable perfect state, enclosed in a coffin and sarcophagus, at St. Denis, after the lapse of twelve hundred years; and Dr. Taylor mentions that the skeleton of William Rufus was found in a stone coffin at Winchester, nearly perfect, after seven hundred and eighty years' burial. The bones of Abelard and Heloise were so well preserved, that after a lapse of five hundred years the female skeleton could be readily distinguished from the male.

If the bones have undergone *calcination*, as when a body has been burned with the intention of destroying the identity, especially in cases of infanticide, it may still be possible to determine whether the remains are human, or those of one of the inferior animals, unless the calcination has been so complete as to reduce the bone to powder. In the latter case, although a chemical analysis of the ash might detect the *phosphate of lime*, this would throw no light upon the subject of inquiry, since the ash of human and animal bone is identical.

In some remarkable cases the identification of a skeleton has consisted in the discovery of its burial place. Thus the body of Henry IV. of England was discovered in quite good condition in Canterbury Cathedral, some four hundred and fifty years after its burial.

So, too, only fifteen years ago, the tomb of Charles I. was opened and its contents examined. His body was identified by its well-known resemblance to pictures and busts of the king, by the pointed beard and unusually high forehead, and by the fact of the severance of the head from the body.

LARYNGEAL PHTHISIS.

By F. H. BOSWORTH, M.D.,

LECTURER ON DISEASES OF THE THROAT AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

Read before the County Medical Society, Monday, March 24, 1879.

PART I.

WRITERS on purely clinical medicine, such as Louis, Cruveilhier, Trousseau, and others, as a rule, uphold the doctrine of the non-tubercular character of laryngeal phthisis; while Virchow, Rokitansky, Foerster, Rindfleisch, and the first authorities in pathological anatomy, teach that the disease is primarily due to a deposit of tubercle. The former of these views, as more perfectly harmonizing with the development, progress, and clinical history of the disease, and more clearly explaining the pathological changes observed during its course, is the one adopted by the writer; and the object of this paper is mainly to present certain considerations as bearing on this question from a clinical standpoint. The term ulcer is one which in late years has fallen into an extremely loose usage in connection with the mucous membrane of the fauces, both at the hands of physicians and the laity, and the great frequency with which we hear of ulcerated sore throats would lead one to suppose it to be among the commonest of diseases, whereas, excluding the simple erosions or excoriations of the superficial layer of the mucous membrane met with in acute catarrhal inflammations, and confining the term ulcer to what it is, a solution of continuity, with a progressive loss of tissue, molecular death of the parts, it is, in truth, of comparatively rare occurrence.

In the twelve months from March 20, 1878, to March 20, 1879, there have been recorded at the Bellevue Throat Clinic 1,827 new cases. Of these there were 39 cases of syphilitic ulceration of the pharynx or soft palate, 35 cases of laryngeal phthisis, 21 in the ulcerated stage and 14 in the earlier stages; 18 cases of syphilitic laryngitis, 11 ulcerative and 7 showing other conditions, such as stenosis, etc.; 4 cases of specific ulceration of the tonsils, and 5 cases of epithelioma of the tonsil, palate, etc., making, in all, 80 cases in 1,827, or about 44 in 1,000.

It may be asserted as an axiom that ulceration of the mucous membrane of the throat never occurs as a purely local affection, unless possibly as the result of traumatism, but that it is always the local manifestation or accompaniment of a general condition or constitutional disease. Excluding syphilis, epithelioma, scrofula, and lupus, as embracing all the other varieties of chronic ulceration, and, of course, the ulcerations which sometimes occur in the exanthems, including scorbutus, we have left a group of cases of laryngeal ulceration which pursue so nearly the same definite course, present so closely the same appearances, and manifest so uniformly the same subjective symptoms, that we class them as constituting one and the same disease under the head of laryngeal phthisis.

We may define laryngeal phthisis, or the so-called tubercular laryngitis, as a disease characterized by the development in the mucous membrane of the larynx, under the influence of some marked general non-specific dyscrasia, of an ulcerative process, chronic in character and slow in its destructive progress, which

commences in the superficial layer of the membrane, and, if not arrested, extends to the deeper tissues, attacking the perichondrium and cartilages, involving them in caries and necrosis.

In the large majority of cases it occurs in connection with chronic pulmonary disease; but we meet with it alike in tubercular and non-tubercular disease of the lungs.

As a rule, it occurs after the development of the lung trouble, but it may also occur before it is possible to detect by physical signs any evidence that the pulmonary tissues are diseased, but in these cases there is manifest always an impaired condition of the general health.

It may occur, also, from scrofula, malaria, syphilitic asthenia, anæmia, chlorosis, Bright's disease, or any of those general conditions which markedly impair the health and weaken the power of resisting disease.

The upper air-passages, exposed as they are to the first ingress of the inspired air, with its varying temperatures and conditions of dryness or humidity; exposed, also, to the deleterious influence of whatever of impurities it may contain, such as particles of dust and irritating vapors or gases, are exceedingly liable to become the seat of a catarrhal inflammation, which, having occurred once, leaves behind it an especial liability to its recurrence.

The larynx is also the seat of a constant functional activity in the various movements involved in the acts of phonation, respiration, and deglutition, the influence of which in aggravating an existing morbid condition we are often too apt to overlook. If, then, to an existing catarrhal inflammation, with the above-mentioned unfavorable incidents of locality, there is added a blood condition inviting disease to the most weakened part, be it the tuberculous diathesis, the syphilitic, the scrofulous, or any of the conditions lowering the vitality of the system and lessening its power of resisting disease, we can easily account for these chronic and destructive ulcerations in the larynx, which we call laryngeal phthisis, without entering into the perplexities, bewilderments, and discouragements of the question of tuberculosis; indeed, it is not an extravagant statement to assert it as the conviction of a very large proportion of physicians, that the science of medicine would to-day be further advanced had the word tubercle never found its way into medical literature. Discarding, then, the doctrine that tubercle plays any part in the production of laryngeal phthisis, and regarding the disease as one in which we have a catarrhal inflammation developing into an ulcerative process under the influence of the constant irritation of ceaseless functional movement, added to an impaired condition of the general health, and we have an explanation of the cause of the disease which more fully harmonizes with its development, clinical history, and course, than any other. That the constant movement to which the larynx is subject plays an important part in the causation of laryngeal phthisis is still further shown by the fact that the earliest manifestation of the disease is seen in that portion of the organ which is subject to the most constant and restless motion, viz., the arytenoid cartilages and the interarytenoid commissure, the special movements taking place in these parts being such as would naturally tend to aggravate and irritate an inflammatory condition, the commissure being folded upon itself, and squeezed, as it were, between the cartilages with each act of phonation and respiration.

A large proportion of cases of the disease occur in connection with and subsequent to the development of pulmonary disease. The true explanation of this is believed to be, that the pulmonary disease is the cause of the laryngeal disease, and not that the two are developed from one and the same cause. A majority of cases of lung trouble are attended by more or less catarrh of the mucus lining of the larynx. This condition is aggravated by the constant motion to which the parts are subject in phonation and respiration. The constant cough which attends the lung trouble cannot but be an additional source of irritation; and, besides this, the membrane is being constantly bathed by the discharges, often of a fetid and offensive character, which pass over it from below. If, now, the pulmonary disease be of such nature as to lead to serious impairment of the general health, we have all conditions most favorable for the development of the disease we are considering, for the writer strongly holds to the belief that impaired vitality is the most essential factor in its causation.

Primary laryngeal phthisis, if not arrested, invariably leads to the development of pulmonary disease. It is generally said of these cases that the pulmonary disease already exists, but is masked by the laryngeal disease, and cannot be detected by physical signs. It is easier to believe that the pain, constant hacking cough, loss of sleep, interference with proper nutrition by the painful deglutition, and the fetid discharges poisoning every breath of inhaled air, all prominent symptoms of the laryngeal disease, must necessarily aggravate the previously existing state of impaired health, and eventually lead to the development of further disease which fixes itself upon the organ most closely connected, anatomically and physiologically, with the one primarily affected, viz., the lungs, the laryngeal disease acting as the direct cause of the lung disease. We thus have established a vicious circle, the one reacting upon the other, and both completing a picture of pain and suffering rarely exceeded in our experience.

The influence of laryngeal ulceration upon the general health is again very markedly evidenced by those cases in which a foreign body becoming lodged in the upper air-passages gives rise to ulceration followed by greatly impaired health, with emaciation and eventually death from this cause or concurrent lung disease.

Among the conditions under which laryngeal phthisis may develop are enumerated the tubercular and scrofulous diatheses, malaria, and syphilis.

The intimate anatomical and physiological connection between the larynx and lungs is sufficient to explain why a very large preponderance of cases of laryngeal phthisis occur in connection with the impaired state of health which attends chronic lung disease. Syphilis is included among the causes, and by this is meant more properly what has been termed syphilitic asthenia, viz., that condition of markedly impaired health we sometimes meet with as the result of infection, in which all specific manifestations of the disease have disappeared. That in this condition laryngeal phthisis may develop, the writer entertains little doubt, having seen such cases in which the progress of the disease and the character of the ulceration in no way resembled the more specific disease, but presented all the features of the ordinary laryngeal phthisis as described further on.

Many writers in treating of the disease describe the first stage as one of anæmia of the larynx. This condition is not a rare one; and while it may, in many cases, exist before laryngeal phthisis, and perhaps excite suspicion, yet it does not point directly to the disease, and presents no features by which we can with

any certainty recognize the threatened danger. There is therefore no sufficient reason for considering it a stage of the disease.

The first stage is that of pyriform thickening of the mucous membrane covering the arytenoid cartilages and the interarytenoid commissure. This thickening is peculiar and characteristic. The contour of the cartilages is completely masked and concealed by a thick, club-shaped swelling, while the commissure bulges out in such a manner as to present a rounded mass anteriorly, which oftentimes interferes with the approximation of the cords, while at the same time it extends upward so as to reach nearly to the level of the cartilages and fills up the normal notch between them. The mucous membrane is reddened throughout the larynx, and presents a moist, boggy appearance, especially over the swollen arytenoids, where it is covered with mucus or muco-pus.

The second stage is that of infiltration of the epithelial coat of the mucous membrane. In this stage we first notice what constitutes a prominent feature of laryngeal phthisis, viz., an excessive cell-proliferation. There appears on the surface of the membrane a small whitish-gray patch slightly raised above the surface, and seemingly an infiltration of its epithelial layer. This occurs in a majority of cases on the laryngeal face of the arytenoid commissure. Its next most frequent site is one of the ventricular bands, and then indifferently in other portions of the organ. These patches may present themselves in groups when they are very small, or they present themselves singly, when they may attain a considerable size. Their duration is very limited, as they rapidly run into—

The third stage, which is the stage of fully developed ulceration. This change the writer has watched in several cases, and has seen the grayish patch gradually change from an apparently quiescent state to one of active discharge. The superficial layer of epithelium being thrown off and new cells being produced, they gradually degenerate into pus cells; the surface of the formerly gray patch becomes yellow in color, the discharge becomes purulent in character, and the ulcerative action becomes established. The ulcer extends by extending its margins, and also by attacking and eroding the parts beneath, and the waste of tissue commences which gives name to the disease. The ulceration may be small, or cover a comparatively large surface. It may be made up of a number of minute points of ulceration, as most frequently occurs when the disease attacks the epiglottis, or there may be several large ulcers distributed in different parts of the larynx.

In this stage we notice more prominently the excessive cell-growth which characterizes the disease. While the destructive ulceration goes on we find developed, sometimes on the ulcerated surface, but more frequently on its margins, small, pointed, warty growths, which may be so extensive at times as almost to conceal and overshadow the ulcerative process; they are very soft, pliable, and easily removed. The error is sometimes committed of picking them off with the forceps, but experience generally teaches the wisdom of letting them alone—certainly until the ulcerations have been entirely healed.

During the second stage often, but far more frequently during the third stage, there may occur a development of the disease of most serious import, in that it not only increases in a marked degree the sufferings and distress of the patient, but also renders the prognosis very much more grave. This consists in the occurrence of an acute follicular inflammation, involving the mucous membrane of the epiglottis, expending itself mainly upon the follicles so richly distributed about the crest, or it may attack the arytenoids. Its onset is characterized by the sudden pouring out of an exudation into the follicles of the same character probably as that which occurs in the second stage of the catarrhal form of the disease, as before described; but in the one case it infiltrates the epithelial layer of the membrane, while in the other it is deposited in and distends the follicles. It occurs with great suddenness and without warning, a few hours often being sufficient for its development. An examination of the parts at the onset of this form of the disease shows the epiglottis swollen, and the mucous membrane in a state of active acute inflammation; the crest is rounded and thickened, and on the surface of the swollen membrane are seen minute projecting points thickly distributed, of a pearly white or gray color, and slightly clouded, as if seen through a diaphanous covering. The appearance resembles very closely that of a tonsil in a state of acute follicular inflammation in which the morbid condition is probably much the same, with the exception that in the case of the tonsil, the follicles being so much larger and more capacious, the projecting gray points are far more prominent and larger. The subsequent progress of this form of the disease is marked by the breaking away of the covering of the follicles, the purulent degeneration and discharge of its contents, and the formation of a minute point of ulceration at its seat, which by a slow process extends its margin until it coalesces with others; and finally, we may have the whole crest of the epiglottis and a portion of its posterior face involved in a sluggish and slowly destructive process of ulceration; the surfaces become clogged and covered with a dirty-looking, grayish muco-purulent discharge. This condition constitutes what is usually termed the epiglottic form of the disease, and is unquestionably laryngeal phthisis; but whether what has been described as the first stage is one and the same disease with this form, may be questioned by some. Having carefully observed a number of cases which, resisting efforts to arrest the disease, passed progressively through all these stages, the writer holds firmly to the conviction that they are one and the same disease, and one of the main objects of this paper is to urge the importance of recognizing this fact; and hence, the imperative duty of making every effort to arrest it in its early stages, before the later and more intractable form of the disease has set in.

The other appearances which we meet with are secondary and dependent upon the ulceration, such as: acute catarrhal and phlegmonous inflammation of the mucous membrane lining the larynx, and not involved in the ulcerative action; œdema of the loosely-attached portion of the mucous membrane, or the ary-epiglottic folds, and the laryngeal face of the epiglottis; and perichondritis and necrosis of the cartilages.

Subjective Symptoms.—As the above described conditions develop, the subjective symptoms become prominent: these are pain, cough, difficult and painful deglutition; hoarseness, if the cords are affected; aphonia, if the thickened condition of the arytenoid commissure prevents their approximation.

In the first stage the symptoms are not prominent; there is an irritated condition, with a sense of prickling or tickling in the throat, and there may be some pain in swallowing, due to pressure on the filaments of nerves distributed in the swollen parts. As the disease progresses we have the severe and oftentimes exquisite pain due to the pressure to which the parts are subjected in the movements of respiration, phonation,

and especially in deglutition. If the epiglottis is involved the subjective symptoms become greatly aggravated, the pain and difficulty in swallowing become oftentimes most acute, and even the movements of the larynx in respiration or talking become a source of extreme suffering. The food is often regurgitated, and any attempt to swallow food or drink is made with reluctance, on account of the exquisite pain caused by the act; the additional element of pain being due to the mechanical pressure of the bolus of food upon the inflamed surface.

Diagnosis.—In the later stages of the disease this is not difficult. The disease, above all others with which it may be confounded, is tertiary syphilis of the larynx, in which we have the rapidly destructive ulceration, the sharp-cut edges, the excavated surface covered with bright yellow pus, the absence of the warty growths which characterize phthisical ulcers, and especially the areola of red, angry-looking mucous membrane which surrounds it, with the general condition of the patient showing no marked evidence usually of impaired nutrition. In laryngeal phthisis, on the other hand, we have an essentially chronic process of ulceration; the edge of the ulcer ragged and irregular, but not excavated; the surface of the ulcer not markedly depressed, and oftentimes raised above the surface in parts by the excessive cell-proliferation; the absence of the inflamed areola, and the general condition of the patient, always in bad health, and, in a large majority of cases, this due to commencing or existing pulmonary disease; add to this the one subjective symptom of pain which is characteristic of laryngeal phthisis almost without exception, and which is very rarely met with in syphilis, and the differential diagnosis is made comparatively easy.

With lupus, carcinoma, and the various neoplasms which are met with in the larynx, the disease under consideration need rarely be confounded.

But while the diagnosis is not difficult in the later stages, the question becomes an extremely important one whether we have any certain means of recognizing the disease in the first stage, for the writer is confident that when early recognized it is in our power, in certainly a very large majority of cases, to arrest its further progress. The condition described as the first stage of the disease, viz., the club-shaped arytenoid cartilages and the pyriform thickening of the commissure, is believed to be pathognomonic of laryngeal phthisis, and is found in no other disease. This condition the writer has never yet seen except in this disease, or where the diagnosis has not been fully confirmed by the subsequent history of the case, or by other symptoms elicited at the time confirmatory of the diagnosis.

Discarding, then, the old teaching that laryngeal phthisis is a manifestation of tuberculosis, but considering it as a separate and distinct disease, manifesting the symptoms and appearances above noticed, into which a simple laryngeal catarrh may develop, provided there exists the additional impulse toward it of a markedly depraved condition of the general system, due to the tuberculous, scrofulous, or syphilitic diathesis, malaria, anæmia, Bright's disease, or any of the blood conditions which weaken the resisting power of the system, the deduction is obvious: if in any of these conditions subjective symptoms arise of laryngeal trouble, it is of the highest importance that a most careful examination be made, and the case watched with additional care; if nothing more than laryngeal catarrh exists, it should be treated by measures especially directed to the parts, in addition to the measures resorted to for the correction of the general habit; for there can be little doubt that there is an additional danger in the catarrhal inflammation of the development of the disease which we are considering. If there exists the condition described as characterizing the first stage of laryngeal phthisis, there is all the more reason for instituting immediate measures for arresting its further progress.

Prognosis.—This, of course, depends mainly on the success of treatment, and is sufficiently noticed by the record of cases appended below; but, in its special relation to lung disease, it seems to the writer that there is a misconception on the part of many authors. We are usually taught that an improvement in the pulmonary symptoms is attended by an aggravation of the laryngeal symptoms, and *vice versa*. This is but a partial statement of the case. In a given case of laryngeal phthisis, occurring in connection with chronic pulmonary disease, a sudden aggravation of the lung disease may be attended with an apparent amelioration of the subjective laryngeal symptoms. How this is so it is difficult to understand. Possibly the increased morbid action in the one organ may act as a derivative from the other; but that anything more than temporary relief of subjective symptoms occur is improbable. And the same may be said of the converse. But these changes and interacting improvements occur entirely outside of, and independently of, any therapeutic measures. In the experience of the writer, any improvement in the laryngeal ulceration, which is due to direct local treatment, is not followed by, or attended with, any aggravation of the lung trouble. On the contrary, the general condition has improved, the lung symptoms have improved; and, in several cases, there has been detected unquestionably very decided amelioration of the lung disease, as shown by physical examination. Certainly in no case has it been possible to trace any direct connection between an aggravation of the one disease and an improvement in the other. In the earlier stages the disease is curable in probably a majority of cases. And even after the occurrence of extensive ulceration and destruction of tissue the writer has seen cases recover. The occurrence of the follicular ulceration, described as attacking the epiglottis, renders the prognosis very grave. And in a majority of these cases the only hope is to relieve somewhat; this can be accomplished in most cases.

Treatment.—This consists of four steps, which are regarded as of importance:

First. The thorough cleansing of the parts preparatory for the more special application.

Second. The application of such mild astringents, alteratives, or resolvents as may be indicated.

Third. The application of an anodyne to relieve pain or irritability, and to correct any irritation caused by the previous remedies.

Fourth. The application of iodoform as a specific in its action on ulcerations of mucous membranes.

The cleansing is best accomplished by one of the solutions given below, preference being given to the first.

℞. Acidi carbolici, cryst. ..... ℳxij.
Sodæ bicarb.,
Sodæ biborat., āā ..... gr. xxiv.
Glycerinæ ..... ℥iss.
Aquæ rosæ, ad ..... ℥viij. M.

℞. Sodæ salicylat ..... gr. x.
Sodæ biborat ..... ʒi.
Glycerinæ ..... ℥i.
Aquæ rosæ, ad ..... ℥viij. M.

This is best applied by the Sass spray tubes with the compressed-air apparatus, the pressure being about 15–20 lbs. The tongue being protruded, and held, thus lifting the epiglottis and uncovering the laryngeal cavity the patient being directed to sound in high key A -the point of the tube is passed beyond the crest; and the pressure being let on, the cavity is flooded with the spray before the reflex spasm has an opportunity of shutting off the parts. This should be repeated several times, until the ulcerated surfaces are thoroughly cleansed, and the fact ascertained by inspection with the mirror. This cleansing should always be grateful to the patient; and if there is any pain or irritation caused by it the solution used should be reduced in strength, or changed. Care should always be exercised, of course, to avoid wearying the patient. If nausea or vomiting is caused, the sitting should terminate for the time.

After the parts are thoroughly cleaned an anodyne solution may be used, although this is not always essential. But if during the sitting any of the applications cause pain, an anodyne or soothing application should be thrown in to relieve it. Of these a 5–10 gr. solution of morphine may be used, with the addition of sodæ carb., or potass carb., to give it an alkaline reaction. A small portion of mucilage acaciæ added may increase its soothing effect.

The next step in the treatment consists in the application of an astringent. In the order of preference, these may be used: zinc. sulph., gr. x.–℥ i.; arg. nitrat., gr. iij.–v. to ℥ i.; zinci chlorid., gr. iij.–℥ i.; tannin et glycerin., ʒ i.–℥ i.; liq. ferri persulph., ♏xx.–℥ i. The selection of the special astringent being governed somewhat by the effect and tolerance.

Finally, there should be applied iodoform to the surface of the ulcer. This is used for its specific action; it is easily borne, rarely gives pain, and its effect in many cases is most satisfactory. The formula generally employed is as follows:

℞. Morphiæ	gr. x.	
Tannin	ʒ ij.	
Iodoform	ʒ vj.	M.

Sometimes the saturated solution in ether is used, ♏ xl.–℥ i., but the powder is generally preferable. This application is made with the powder-blower, first suggested by Dr. A. H. Smith, so constructed as to deposit a smooth, even layer of powder on the surface, thus avoiding the objection to the ordinary Rauchfuss insufflator, and instruments of that class which project the powder in mass, and often do harm by their failure to evenly distribute it, and by piling it, as it were, in parts of the organ, thus causing too much irritation. The insufflator of Dr. Smith consists of a small open-mouthed bottle, through the cork of which two tubes are passed, bent at right angles; to one tube is attached a single hand-ball; the other is fashioned to adapt it for the especial application to be made. The powder being placed in the bottle, a single quick pressure on the hand-ball drives a current of air into the bottle, which stirs the powder up into a fine cloud, and drives it out in this state of fine diffusion through the other tube, and deposits it in an evenly distributed thin layer over the parts which it is desired to medicate.

(To be continued.)

Decrease in the Number of Doctors in France.—The number of doctors of medicine practising in France in the year 1866 was 11,251, and that of "officiers de santé," 5,568. In 1877 there were only 10,743 doctors and 3,633 "officers," a reduction of 2,446 in the number of practitioners.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

(Reported for The Medical Record.)

WARDS FOR DISEASES OF THE NERVOUS SYSTEM.

The cases found in these wards, which are in charge of Dr. Charles K. Mills, neurologist to the hospital, are chiefly examples of chronic organic disease of the nervous system—hemiplegics from hemorrhage, thrombosis, or embolism; cerebral, cerebro-spinal, and spinal scleroses; meningitis, meningo-encephalitis, and meningo-myelitis; epilepsy, hystero-epilepsy, and hysteria; brain tumors, spinal softening, and the like. Acute cerebral and spinal disorders; neuralgias, peripheral paralyses, local spasmodic diseases, and similar affections, are sometimes, but not so frequently, represented.

ELECTRICITY.

In connection with the wards, a large apartment, known as the *Electrical Room*, has been fitted up. It contains one of Flemming & Talbot's permanent batteries of sixty cells, and a fine faradic instrument from the same manufacturers. The wards are also supplied with portable galvanic and faradic instruments.

Dr. Mills, during the past year, has used electricity with marked success in the treatment of bed-sores, which, in spite of the best of care, are apt to form in cases of spinal and cerebral disease. The "silver-and-zinc-plate" method is the one generally employed, a silver plate being placed over the sore, and a zinc plate (connected by a wire with the silver) on a piece of acidulated chamois skin or paper lint, which rests on the unbroken skin a few inches above. A weak current from the galvanic battery is sometimes used instead of the plates. A silver plate applied to the sore is connected with the negative electrode; an ordinary rheophore, joined to the positive pole, being placed upon the surface near. The séance is continued for from five to ten minutes daily. Many cases of chronic ulceration put into the hands of the neurologist for electrical treatment have been cured by the galvanic plates, or the use of the battery current. Electricity is very effectual in stimulating healthy granulations.

Faradization is used in the wards to improve the condition of palsied muscles; and central galvanization is employed chiefly in spinal affections.

METALLOSCOPY AND METALLOTHERAPY.

Numerous experiments in metalloscopy and metallotherapy have been made in the Nervous Wards, only a few of which can be alluded to at present.

In one case of brain tumor with partial anæsthesia of the left leg, a small zinc plate applied to this limb in an hour caused a sensation which was described by the patient as being like that produced by the "battery," referring to a faradic instrument. Other metals were tried, but had no effect. The salts of zinc were used without success, iodide of potassium being the only remedy that seemed to help the case.

Some curious results were obtained in a number of cases of marked anæsthesia from hysteria and spinal disease, to two of which reference will here be made.

One case was that of an unmarried woman, aged twenty-nine, supposed to be an example of hysterical paraplegia and anæsthesia. On two occasions plates of zinc, iron, copper, tin, silver and gold, of about the same size and weight, were placed on different parts of the body simultaneously; at other times the applications were varied—sometimes one plate, sometimes two or three were used. Many trials were made, the patient being blindfolded, and different locations being selected for the same plate. In five instances the patient picked out the zinc plate in from twenty to forty minutes, saying that she felt under it a sensation which she described as tingling, or as like "pins and needles." Twice she referred similar, but weaker, sensations to the plate of iron, but other metals gave no result.

Sensation was temporarily improved, muscular power was apparently increased; and the anæsthetic limbs bled more freely, on pricking them with needles, after the zinc was applied, until the peculiar sensations described were called forth. This patient was kept upon the use of valerianate of zinc for six weeks—sensation, motion, and her mental condition improving. Subsequently, however, she relapsed.

A second case was that of a man, aged twenty-eight; an advanced case of sclerosis of the posterior columns, with almost absolute anæsthesia of the lower extremities. After carefully testing the condition of sensibility and of the circulation, a small zinc plate was applied to the right calf, and a silver plate of the same size to a corresponding part of the left leg. In thirty minutes he began to have a sensation as if needles were pricking him under the silver plate. Two or three minutes later he had a similar, but weaker, sensation under the zinc on the right limb. The plates were kept on ten minutes, during which time he had four alternations of sensation in the two sides. When the pricking sensation was present under the silver plate it would be absent under the zinc, and vicè versa; but it was in each instance much more decided under the silver. On removal of the plates electro-sensibility was decidedly improved. No change of sensibility to the æsthesiometer or state of the circulation was produced. The symptoms in this case were decidedly ameliorated by both nitrate and oxide of silver, but were not permanently benefited by any treatment.

Dr. Mills does not believe that the theory of "expectant attention" will explain satisfactorily all the phenomena which result from metallic applications. Patients do certainly sometimes exhibit metallic idiosyncrasies—whatever may be the explanation. Anæsthesia, even when the result of organic disease, can be temporarily removed by applying pieces of metal. He has observed that two metals will sometimes produce similar effects on the same individual; but, even in these cases, he has always found that one of the two will give rise to more decided sensations, and will be more positively effectual in removing the anæsthesia.

In regard to internal metallotherapy, it is somewhat difficult to arrive at a decision. Irrespective of metalloscopic investigations, the value, in chronic spinal diseases, of the preparations of zinc, silver, and other metals, has long been known. They can also be used with advantage in cases in which no effect is produced by external applications of metals. The salts of silver and zinc will undoubtedly bring about amelioration of serious symptoms in cases in which these metals, when applied to anæsthetic limbs, will be selected by patients in preference to others because of the peculiar sensations which they cause.

MASSAGE AND SWEDISH MOVEMENTS.

Both massage and Swedish movements are employed to a considerable extent, some of the nurses being trained for this work. Massage is found to be of benefit, even in old cases of paralysis, serving to keep up nutrition and temperature, and preventing trophic changes. In neuralgic and hysterical cases it also often proves of great service.

In the same room in which the permanent electrical instruments are kept, are some simple forms of apparatus for the movement treatment, such as a crossbar adjustable at various heights, a leaning cylinder for exercising the muscles of the trunk, a stool of the proper height and size for sitting movements, and a lounge or couch so hinged as to be capable of being inclined at various angles. The patients are taught to practice movements with or without assistance, according to the nature of the case.

A movement treatment, without apparatus, is also often used. The kinds of movement usually resorted to, without appliances, are the passive, or the duplicated active. Systematic passive movements are employed for the purpose of preventing, as far as possible, atrophy and deformities. Joints are kept in a healthier condition through the agency both of massage and these passive movements. Duplicated active movements are used in those cases in which the loss of power in sclerotic or paralytic patients, for instance, is not absolute. In conjunction with faradization this method of treatment often results in the marked improvement of the paralyzed limbs, palliating symptoms, and improving circulation and nutrition even of palsied limbs.

THE ACTUAL CAUTERY.

The actual cautery, either alone or conjoined with other remedies, is frequently resorted to in the treatment of epilepsy, and of chronic spinal diseases. The ordinary cautery-iron, with a button shaped like the blunt end of an olive, has usually been employed, but recently the hospital has obtained a Pacquelin cautery, in which the vapor of pure benzine is forced by an air-blast upon a piece of hot platinum. Superficial applications to the nape of the neck, or along the spinal column, are made every two or three days. The intervals between epileptic seizure has been extended from days to months by the use of the cautery.

THE TREATMENT OF SYPHILITIC BRAIN DISEASE.

The wards are nearly always well supplied with syphilitic affections of the brain and cord. Iodide of potassium in energetic doses is largely employed. Mercurial inunction has also been extensively tested, and in a few instances with striking results. From half a drachm to a drachm and a half of mercurial ointment is used daily, or every other day, the treatment being persisted in until some effect is produced, or good reasons arise for its discontinuance. Before inunction, the parts to which the ointment is to be applied are well sponged with warm water. Strict attention is paid, at the same time, to diet and hygiene.

TREATMENT OF SPINAL SCLEROSES.

For the various forms of spinal sclerosis, and particularly for posterior spinal sclerosis, or locomotor ataxia, the salts of silver—the nitrite, phosphate, or oxide—are generally found to be the most efficacious internal remedies. They are used in doses of from one-third to one-half a grain, and are often combined with some bitter tonic, as the extract of gentian or quassia. Electricity, in the form of moderately strong galvanic currents, is also much used; stabile currents

to the spine, and labile currents to the limbs being the most common methods of application. Early in posterior sclerosis large doses of ergot are often prescribed.

THE TREATMENT OF CEREBRAL AND SPINAL EXHAUSTION.

Preparations of phosphorus are used in the treatment of cases which show signs of cerebral or spinal exhaustion. A favorite preparation of this substance is the oil of phosphorus of the Prussian Pharmacopœia. This oil is administered according to the following formula, which is also used at the Hospital of the University of Pennsylvania:

℞. Olei phosphorati..... ℥xvj.
Olei gaultheriæ..... ♏ viij.
Mucilag. acaciæ, q. s. ad..... f℥ j.
M.
Sig. One to two teaspoonfuls three times daily.

The oil of phosphorus itself can be prepared by the following process: "Into five fluid drachms of pure almond or olive oil, contained in a glass flask, drop three grains of transparent phosphorus. Place the whole in a water-bath at 175° F., and agitate until dissolved."

CALABAR BEAN IN DEMENTIA PARALYTICA.

Calabar bean is prescribed in dementia paralytica, cases of which, in the early stages of the disease, sometimes find their way into the Nervous Wards. If not promptly relieved, they are transferred to the Insane Department. Pills of the ext. physostig. venenas, each containing from the one-sixth to the one-third of a grain, are given three times daily, the treatment being persistently continued and the effects of the drug constantly watched. Rest, nourishment, and counter-irritation to the head or nape of the neck are conjoined with the calabar bean.

GENERAL NOTES.

Cannabis indica, hyoscyamus, conium, morphia, chloral, and bromide of potassium are used to fulfil various indications, such as tremor, headache, sleeplessness, mental symptoms, etc.

APOPLEXY.

In the treatment of the apoplectic state the patients do not stand depletion well. Bleeding is seldom employed. Supporting measures are often found to be necessary to carry the cases successfully through the attacks.

Progress of Medical Science.

Galvanism in the Treatment of Sciatica.—Dr. Gibney has employed this agent in fifteen severe cases of this disease. Eleven cases were entirely cured, only one of which had a relapse at the end of eight months, under strong provocation. A very strong current was employed; in some instances lively erythema was observed around the electrode, and in two patients an eschar was found after the electrode was removed. No bad effects were found to follow these strong currents. With regard to the direction of the current, Dr. Gibney believes that it is immaterial, though all his cases were treated with the ascending current. In the earlier cases the positive pole was placed over the lumbosacral region, and the negative over the seat of the pain. In the later cases, the positive pole was placed over the trunk of the nerve at its exit, and the negative over the seat of the pain. It is best not to move the sponges from place to place during one sitting, as the contractions which follow the breaking of the current prove too irritating to the nerve. If the pains are diffuse, it is better to reach the distribution of a single branch at a single sitting. At the next sitting another branch can be embraced in the galvanic current. The sitting should vary from five to fifteen minutes, and should be held daily, or at least every other day. No internal remedies were employed in any of the cases reported.—*Trans. New York Academy of Medicine*, Feb. 6, 1879.

Two Cases of Syphilitic Paraplegia.—Dr. Buzzard gives the following histories of two interesting cases of syphilitic paraplegia. The first was a male, æt. 25 years, who contracted syphilis one and a half years previously. Nine days before admission to hospital he suffered from intense paroxysmal pain in the right ham, at first dependent on motion, and then occurring spontaneously. Upon admission, patient had severe pain between the scapulæ, and the back appeared to be stiff. When the second lumbar vertebra was percussed, the right leg was seen to twitch. There were sharp pains around the trunk from the nipples to the hips. The lower limbs were analgesic and anæsthetic, more markedly on the right side. The right limb was almost completely paralyzed, the patient being merely able to move the ankle-joint slightly; the power of the left leg was not materially lessened. Reflex excitability was retained. There was paresis of the bladder; the muscles of both legs reacted well to faradism. Pulse 88, temperature 98.4 F. Iodide of potassium was given in doses of ten grains (increased in a few days to thirty), three times a day; the spine was rubbed with mercurial ointment, until the gums became tender. The patient began to improve almost immediately, and on the thirty-sixth day he was up and walking very fairly, but sometimes suffered from a cramp in the back of the right thigh and slight pain in the hypogastric region. The right leg seemed as strong as the left, and there is no defect of sensibility. He was discharged cured on the fiftieth day. This is evidently a case of more or less circumscribed inflammation of the spinal meninges, in the lower dorsal portion of the cord, and affecting chiefly the right half. The meningitis was probably gummatous, and involved especially the internal surface of the dura mater.

The second patient was a female, æt. 29 years, married. She entered the hospital suffering from much loss of power and numbness in both lower limbs, especially the right. She had been attacked three months previously with numbness and formication in the feet, and these symptoms extended upward until the arms became involved. The patient had a feeling as of a tight band around the waist, and suffered from constipation and some atony of the bladder. The left pupil was somewhat smaller than the right, and irregular; eyesight was normal. The ophthalmoscope showed, in the right eye, evident remains of disseminated choroiditis (atrophic and pigmented spots), and, in the left eye, old adhesions of the iris and opacities of the vitreous body. Ten grains of iodide were ordered, three times a day. Within two weeks she had lost the feeling of tightness around the waist, the numbness in the legs, and the delay of the bladder. The hands were still very numb and dead, so that she could not use a needle or pin. The dose was increased to fifteen grains, and at the end of a month she was perfectly well.

Constitutional syphilis was proven by the ophthalmoscopic appearances and by the immediate influence of the iodide. The most probable suggestion appears to be that the lesion was an alteration of blood circulation in the membranes of the cord. The mode in which the affection travelled upward reminds one of acute ascending paralysis, but the length of time occupied in the process and the eventual recovery exclude this explanation. We cannot at present satisfactorily explain the manner in which constitutional syphilis brings about such an altered condition of circulation as we suppose to have been present in this case. It is not, perhaps, extravagant to suppose that there may be a thickening of the walls of minute blood-vessels (with a consequent diminution of their calibre), which gives way to specific treatment.—*The Lancet*, April 5, 1879.

Hydrocele of the Femoral Canal.—Dr. Osborn reports the following as a case of hydrocele of the femoral canal (in other words, a process of peritoneum projected from the general peritoneal cavity, and not a hydrocele of a femoral sac), because, after withdrawal of the fluid no impulse was obtainable on the patient's coughing, nor was there on manipulation any sensation of there being a rupture in the femoral canal.

Caroline S., æt. 52 years, first noticed a swelling in the right groin eighteen months ago; is quite sure that the swelling did not commence during or after a fit of retching. When first noticed it was the size of her little finger, rather elongated, and like a swollen vein. For fourteen months the tumor produced no inconvenience, but four months ago it began to grow much larger, and became very hard. She states that a physician then reduced a portion of the swelling, as it again went back to its original size. Two weeks ago it again became much larger, and very painful.

On examination a tumor was found over the saphenous opening about the size of a bantam's egg, smooth, fluctuating, and transparent by transmitted light, with some hard nodules below and at the inner side. Taxis succeeded in reducing part of the swelling, but the same evening it was again as large as at first. November 8th.—Cyst tapped, and about nine drachms of a clear, pale yellow serous fluid withdrawn. The hard nodules could now be diagnosticated as glands, since similar indurated lumps were felt about the opposite saphenous opening. A pad of lint was bound on by a spica bandage to keep the surfaces of the sac in contact. November 9th.—Cyst found to be still empty; bandage reapplied. November 19th.—Patient got up, wearing a femoral truss, having been confined to her bed during treatment. December 5th.—No accumulation of fluid in the cyst.—*The Lancet*, April 5, 1879.

A Urine-Thermometer for Gynecological Practice.—Dr. Otto Küstner, of Jena, describes an ingeniously arranged instrument for measuring the temperature of the urine in gynecological practice. The instrument consists of a silver female catheter, which contains in its lumen a self-registering thermometer. The catheter tapers sharply below the point to which the bulb of the thermometer reaches, and in addition to the usual eye at its vesical end, possesses another near the external end for the escape of the urine. The thermometer is firmly soldered to a silver top which fits closely into the outer end of the catheter; this top, with the thermometer attached, can be removed at will. The space left between the thermometer and the wall of the catheter is about equal in area to the lumen of the tapering end of the catheter, so that the urine can pass out freely, bathing the thermometer in its course, and escaping in a stream from the external eye of the catheter. When the instrument is introduced into a moderately filled bladder, the column of mercury in the thermometer attains its maximum point in from eight to fifteen seconds according to the rapidity with which the urine escapes, the rapidity of the flow of urine in turn depending on the usual causes, viz., the degree of distention, the action of the abdominal muscles, the age of the patient, etc. The average quantity of urine that escapes through the instrument in fifteen seconds is about sixty c.cm. (about two ounces), although this, of course, is subject to many differences. The temperature of the body measured in the urine in fifteen seconds and less with this instrument corresponds very closely with the temperature obtained with the same thermometer when left in the vagina for five minutes, the difference, when any exists, being at most 0.1–0.15 of a degree (C.) This fact was verified by a large number of experiments. Hence Dr. Küstner claims that his instrument, against the use of which in gynecological practice no objection can be raised, presents the most certain and rapid method of measuring the temperature of the body.

Oertmann was the first to suggest the measurement of the temperature of the urine as a means of determining the temperature of the body. His method, however, which consisted in urinating on the bulb of a thermometer, was intended only for the use of men, and moreover only for men who pass larger streams of urine. Dr. Küstner endeavored to adapt it to use in the cases of women by introducing a catheter into the bladder and allowing the urine to flow from it over the bulb of a thermometer, but the results were not satisfactory. The temperature of the urine obtained in this way was, it is true, pretty constantly from 0.3–0.5 (C.) higher than the axillary temperature taken at the same time, but still greater or less differences often occurred, the above relation being sometimes reversed. These differences were perhaps partly due to radiation and absorption of heat by the catheter. Moreover, the time required for the mercury to attain its highest point was from thirty to forty seconds. On the other hand, the advantages claimed for the new instrument in measuring the temperature of the urine in women are: the rapidity with which the measurement is taken, the small quantity of urine required for it (even if the patient urinated half an hour before there will be enough urine in the bladder for the purpose), the practically absolute uniformity of the results with those obtained in the vagina, and the convenience of application.—*Centralblatt f. Gynäkologie*, Feb. 15th.

Massage of the Tonsils.—M. Quinart describes, in the *Archives médicales belges*, a method of treating hypertrophy of the tonsils that has proved very successful in his hands. The method, which is only applicable after the inflammatory period has passed, consists in massage of the gland, and is carried out as follows: He covers his index finger with alum, introduces it into the mouth, and brings it to bear directly on the tonsil, which is manipulated, with gradually increasing force, over as great an extent of its surface as can be reached. The operation is at first painful and disagreeable; but the discomfort is readily allayed by an emollient gargle. After a few repetitions, it ceases to be painful, and the patients readily learn to practise it themselves.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 17, 1879.

AMERICAN MEDICAL ASSOCIATION.

THE meeting of the American Medical Association at Atlanta, Ga., differed in no very notable respect from many of its more recent predecessors. In fact, the machinery of the organization is so complete, and the provisions for the disposal of almost any amount of business are so perfect, that it would be an exception to have the usual routine seriously disturbed. Of course new questions come up for discussion each year, but they are now, contrary to what it was in former times, disposed of in a dignified and satisfactory manner. During the present session the latter was the case, with scarcely a single exception, the Association doing itself honor by its different recorded votes.

The question of teaching homœopathic students came up as an amendment to the Constitution, under the rule, and was very candidly presented by the Chairman of the Council, with the ultimate result of postponing action for another year. It could hardly have been supposed that the Association would be prepared to commit itself in favor of the amendment, inasmuch as such action would be in conflict not only with common sense, but with the individual rights of students and teachers, and the chartered privileges of all institutions of learning. The regular medical colleges have no more right to deny instruction to any one who is capable of receiving it and who is willing to pay for it, than have any other institutions of learning. The trustees and professors of any of these schools have no more right to impose any conditions as to the subsequent use of instruction thus given, than have any other venders of raw material. As well might the lumberman refuse a sale for his logs, unless the same were to be subsequently fashioned after a particular model which he might prefer, and be subjected to a use which, from his standpoint, was the only proper one. It must be admitted that, from a purely selfish aspect, the question has its serious objections, but when we elevate it to a principle there is but one view of the matter to be entertained — a view which, we are happy to state, was taken by the Association.

The scientific element of the Association was, perhaps, not as marked as on previous occasions, although many of the papers read before the sections were very creditable productions, and called forth interesting discussions. The attendance, under the circumstances, the meeting being held in such a remote locality, may be considered to be unusually large. There was to be noticed a want of system in the management of some of the sections which interfered somewhat with their usefulness. This is not so much the fault of the committee, as it is the almost inevitable result of placing new men upon it each year. What is wanted is experience in arranging the machinery, and this can only be acquired by continuing one or two on the committee for two or three years at a time. This, possibly, cannot be done, as the Association meets from year to year in widely separated localities, and it being necessary that two or more members shall be residents; still, its practicability is worth considering in view of the good results to be obtained.

The choice of the President for the coming year will doubtless meet the approval of the majority of the profession of this country and abroad. Dr. Sayre has fairly won the high distinction which has been conferred upon him by his fellow-countrymen. Not only has he been an active, efficient, and successful worker in the ranks of the profession, but a punctual attendant of the meetings of the Association, and a constant and valued contributor to its Transactions.

The selection of New York as a place for the next meeting is a good one, and our friends from the different sections of the country will receive that return of hospitality which many of the delegates have received from their hands for many years past.

THE DWIGHT INQUEST.

THE profession has again been represented on the witness-stand, and with the not unusual result of displaying little more than the imaginative resources of medical experts, and the limitations of medical knowledge.

Last November, Col. Dwight, of Binghamton, N. Y., after quite a prolonged illness, in which he suffered chiefly from vomiting, abdominal pains, and great prostration, rather suddenly died.

He had been treated for malarial poisoning, and was supposed to have died from a congestive chill. He had previously insured his life for more than a quarter of a million in various companies, and, as there were rumors about suicide, a post-mortem was authorized. This was very carefully made by Dr. Delafield, in the presence of a number of other medical men. No evidence of poisoning or of violent death was found, in spite of a long and minute examination. Nor were there any notable lesions dis-

covered. There was some hemorrhagic pachymeningitis, the lungs were congested and œdematous, the heart flabby, containing a small amount of blood; the spleen was enlarged, and there was a chronic gastritis. The cause of death was given by Dr. Delafield as paralysis of the heart; by Dr. Burr, the attending physician, as congestive chill. We are not informed as to whether there was a disagreement between these physicians; but, at any rate, it was unanimously agreed that death occurred naturally, and all the physicians signed the report of the autopsy to that effect.

Last April, instigated by the insurance companies, the body was exhumed and another autopsy held on it, it having been claimed that a sufficient cause of death had not been found by the previous one. The bright and shining light in this connection was Dr. Swinburne, a gentleman who had been present at the previous examination and assented to its conclusions. He, however, on this occasion, noted a crease in the neck of the deceased, which was, he thought, made by a cord, and the theory was presented that Col. Dwight had tied this cord around his neck, then looped it over the scroll-work of his bedstead and hung himself. His wife, attendant, and others, who were with him when he died, or shortly before, connived of course at the performance. This crease in the neck had been carefully examined at the first autopsy, and it was agreed to have been simply a natural one, the deceased having been a full-faced, fleshy man. Under some fresh stimulus to observation, however, this innocent marking made evidence of the triple crime of murder, suicide, and robbery.

The strength of the case for the insurance companies lay chiefly in the fact that Col. Dwight had insured himself heavily while possessing, it was thought, no means of paying the premiums, and further, that no very clear evidence of the primary cause of death was found. The theory of congestive chill was not very strongly supported by the evidence, and only negatively so by the autopsy. Pernicious ague is often, indeed, a boon to those perplexed by obscure and malignant symptoms, as well as a scapegoat for inefficient observation. It is sometimes equally difficult to swear that it has or has not existed, and perhaps on this account it served a tolerable purpose in the present case. The other statement, however, that the patient died from paralysis of the heart, was a senseless and inadequate one as far as explaining the event is concerned. Nevertheless, the report that the autopsy revealed this to be the cause was generally circulated, and the evident insufficiency of such a theory assisted in discrediting the value of the examinations. It was at these two weak points that the insurance companies made their attack, and they succeeded in attracting much attention to their claims. The theory of strangulation, however, which they put forward to account for the death, was ridiculous to the point of imbecility. They lost their cause, and justly, but not so much from the strength of their opponent's case as from the weakness of their own.

The whole affair reflects anything but brilliancy upon the profession and the performers. The spectacle of an intelligent jury listening for days to expert testimony in regard to a fold of adipose tissue was not an impressive one, though it may have had some terrors for the corpulent. It serves, however, to point the moral, which we have drawn before, of the bad results coming from the present system of calling expert witnesses. Ingenuity and imagination seem to be now the most essential qualities of those summoned in this capacity?

CONTROL OF CONTAGIOUS DISEASES BY THE BROOKLYN BOARD OF HEALTH.

An account of what has been done in the above direction has been given by Dr. J. H. Raymond, in the "Proceedings of the Kings County Medical Society" for May. Until recently the certificate of a physician was enough for the readmission of children, who had been suffering from a contagious disease, to the city schools. Now, however, a certificate from the Health Department is required, and much greater security is thus obtained. As soon as a case of contagious disease occurs it is reported to the Central Board. Every twenty-four hours a list of these cases is made out and sent to the teachers of the eighty schools in the city, so that if any of their scholars are included, they may be kept from school. In addition, sanitary inspectors visit these cases as soon as reported, and they send a second notice of the case to the teacher of *the* school to which the child belongs. This arrangement secures additional protection, and makes it impossible for any case to go unnoticed. Further regulations require the room in which the sick person has been living to be fumigated as soon as the sickness is over, this fumigation being generally done by burning sulphur in it—about one pound to a thousand cubic feet of air-space. The child is not allowed to return to school until seven days after the last exposure. The means for protection are thus very completely arranged, and seem to have been carefully carried out. No statistics are given showing the practical results of these measures, and it is, probably, too soon to judge of how much good they really do in diminishing the disease.

MALPRACTICE.

The medical profession has again been called to answer in court for doing its duty. In 1871 one of the surgeons of the Manhattan Eye and Ear Hospital, in this city, after consultation with both of his colleagues, advised an operation for chronic glaucoma. The disease had progressed so far when the patient entered the hospital that vision was reduced to the discernment of large objects with the right eye, and to only one-half ordinary visual power with the left.

The necessity of an operation was agreed upon by the three gentlemen, then surgeons of the institution, and was performed *secundem artem*. No accident occurred during the operation. Two weeks after the patient left the hospital with vision exactly the same as when she entered it. In a few days after her dismission inflammation developed, and she returned to the hospital with the right eye nearly destroyed, and the left much more impaired than when she was discharged. Another operation was advised upon both eyes. She declined, however, to have it upon but one. This operation was performed without effect, and the patient became blind. It should be stated that the patient was not a pauper, her husband being a man well able to pay for any surgical advice or operation. This fact was unknown at the time of her treatment, and she was treated simply for her board at the rate of *ten* dollars a week. Six years after she instituted a suit against the hospital for loss of her sight, claiming that there was nothing whatever the matter with the left eye when it was operated upon, and that there was an agreement with the surgeon that only the right eye should be interfered with. She brought suit for $50,000 damages. The case came on last week in the Supreme Court, Judge Lawrence presiding, and is now in progress. It turned out upon the trial that the patient was not entitled to gratuitous treatment, and that her husband was a man of means. It was also proven that her husband was present at the operations upon the two eyes, that he made no comments upon the fact that both were being operated upon, and, although in the hospital daily for two weeks, that he never complained to the surgeons, or to any of the authorities, with regard to the operation upon both eyes instead of one; nor did he make any complaint of any kind. The hospital attempted to secure a dismissal of the complaint upon the ground of having secured competent surgeons, and that the directors were not liable for want of skill upon the part of their servants. The judge regarded this as an important question, was not quite decided in his own mind upon the point, but overruled it for the present. The hospital then proceeded to show the character of its surgeons by distinguished general practitioners, and also the facts as to the operation, to which allusion has been made. It was proven that glaucoma, especially chronic glaucoma, is a disease which almost inevitably ends in blindness; that surgical interference affords the only hope of relief; that it is readily diagnosticated with the ophthalmoscope, and that it cannot be positively detected without the aid of that instrument.

The prosecutor gave a very graphic description of the letting out of his wife's eyes—of which he made no complaint at the time of the operation—of seeing the eyes running out upon the cheek, a scientific statement which seemed to make a deep impression upon the jury. It is hardly worth while to seriously comment upon such an outrage as this, for the medical profession is well aware that they are subject to just such persecution. We need to instruct the lay mind until it can comprehend the fact that surgeons do not wilfully put out eyes; that that is reserved for gougers, and that there are diseases which end in death and deformity in spite of the most skilful care. For the credit of our craft it should be stated that there was no discrepancy of opinion, among all the oculists called, with regard to the nature of the affection and the propriety of the treatment, and that the character of the surgeons of the institution for care and skill was fully vindicated by their professional peers in other branches of the profession. We have simply recited these facts in order, if possible, to aid in uniting the profession in attempting, by influence and legislation, to protect us from similar assaults. The case is still on. Up to this time no medical testimony of any kind has been brought forward to sustain the charges made against the hospital. Next week we shall be able to present the charge of the judge and the verdict of the jury, which, we feel sure, will interest our readers.

Reports of Societies.

AMERICAN MEDICAL ASSOCIATION.

THIRTIETH ANNUAL MEETING.

Held in the City of Atlanta, Ga., May 6, 7, 8, and 9, 1879.

TUESDAY, MAY 6TH.—FIRST DAY.

THE Association met in De Give's Opera House, and was called to order at 11 A.M., May 6, 1879, by the President, THEOPHILUS PARVIN, M.D., L.L.D., of Indianapolis, Ind.

Prayer was offered by REV. D. W. GWIN, D.D.

The address of welcome was delivered by DR. JOSEPH P. LOGAN, Chairman of the Committee of Arrangements.

MEMBERS BY INVITATION.

The following gentlemen were elected members by invitation: Drs. A. W. Griggs and J. E. McMillen, of West Point, Ga.; C. B. Ridley, of La Grange, Ga.; R. C. Worth, of Decatur, Ga.; J. Dickey, of Thomaston, Ga.; J. C. Walker, of Wilmington, N. C.; W. J. Harrell, of Bainbridge, Ga.; G. Ellis, of Boonville, Mo.; J. B. Roberts and H. N. Hollifield, of Sandersville, Ga.; B. W. Toole, of Talladega, Ala.; R. C. Eve, of Augusta, Ga.; J. T. Slaighter, of Villarica, Ga.; George Homan, of St. Louis, Mo.; and A. M. Owens, of Evansville, Ind.

PERMANENT MEMBERS.

The following gentlemen were elected permanent members: Drs. J. M. Johnson, H. L. Wilson, J. F. Alexander, C. Pinckney, Jas. A. Gray, D. H. Howell, W. Dean, H. B. Lea, R. B. Ridley, and J. T. Johnson, of Atlanta, Ga.

General F. A. Walker, of Washington, D. C., was invited to take a seat upon the platform.

LETTERS FROM ABSENTEES.

Letters were read from Drs. H. I. Bowditch, of Boston, J. C. Hutchinson, of Brooklyn, and H. R. Storer, of Newport, regretting their inability to be present at the meeting of the Association.

ANNUAL ADDRESS OF THE PRESIDENT.

DR. THEOPHILUS PARVIN, of Indianapolis, then delivered his address, which was a most scholarly production, and was listened to with profound attention. The following is a brief abstract: After referring to the great subjects of human study—science, literature, philosophy, and theology—he passed to a department of medicine not limited by scalpel, test-tube, and microscope. Knowledge of the intellectual and of the moral nature of man was just as essential to the thoroughly furnished physician as any knowledge of the merely material organism.

WHY MEDICINE?

At the very outset of our inquiries was, Why did medicine exist? What reason for it? It was born of human sympathy; it sprang from the heart of man, and was an evidence of humanity; it lived because it could live; it had a right to live. Medicine came in response to the cry of human suffering. Pain was the first lesson in the book of evil which most human beings read in such bitterness of sorrow. The problem of physical suffering,

THE MYSTERY OF PAIN,

was then considered, and Alexander Bain's definition given: "Pain expresses an ultimate fact of human consciousness, a primary experience of the human mind, resolvable into nothing more general or more fundamental than itself." But why was that fact? The most obvious reason for the existence of pain was that which the word itself signified. Reference was then made to the various uses of pain. Even with the various utilities of pain, it still must be referred to as often a mystery—more was hidden than revealed.

Greater than the mystery of life was

THE MYSTERY OF DEATH.

Here reference was made to what had been written regarding this mystery by Bacon, Fontenelle, Maudsley, Johnson, and others.

WHAT IS MAN?

But what was man, thus made subject to disease and death? In the human ovum, which neither chemistry nor the microscope could distinguish from the common mammalian ovum, there dwelt physical potentialities, species, races, family, individuality. In that ovum there was the assured promise of all that made a perfect organism. The author then referred to

FACTS OF HEREDITY,

intellectual, moral, and pathological. Passing the evolution of the various parts of the human organism, the transition to the external world, and the shades of speculation as to when, where, and how man originated, he passed to the consideration of

MAN AS HE NOW IS,

"the heir of all the ages." The general belief of mankind was that his nature was dual, and expressed by the terms *body* and *mind*.

MAN AS A MATERIAL ORGANISM.

The assertion of human duality included two propositions: first, man had a physical organization; and, second, a mind. He first considered man as a material organism. He did not believe that the phenomena of living beings could all be referred to physico-chemical laws; but we must, with Beale, "accept the idea of vital power as being super-physical, and with that idea its correlate, a living Creator of such power. Passing the perfections of the human body, the speaker reached the second proposition:

"THE COMPLETE CONCEPTION OF MAN INCLUDES MIND."

Had physiology reduced the facts of intelligence to the phenomena of matter? Certain utterances seemed to indicate that some answered the question in the affirmative. Many of the utterances, however, were open to criticism, if not to unequivocal rejection. The speaker then noticed some of the difficulties which were obvious in all schemes of mental physiology, or effort to interpret phenomena of mind by physical facts. The identity of corporeal and of spiritual phenomena was an affirmation which ought to be consigned to the list of impossible hypotheses. The speaker then passed to

THE PROBLEM OF TELEOLOGY,

which commended itself especially to our profession. It was not set aside by the development theory; nor was it to be cast aside because of its abuses. Time was lacking to refer to the evidences of design presented by the human body; nor was it necessary, for every physician knew them. The author dwelt upon that part of his subject at some length. Accepting gratefully all the facts of science, let us beware of rejecting everything that might not be capable of mathematical demonstration, and compelling our assent by absolute necessity. There might be truths more important, but less open; we might hear the deep but distant murmur of the immortal sea as it beat against the shores of Time, ready to bear upon its mighty bosom the children of men from life to life, and the law of continuity be found as true of the spiritual as it was of the material world.

The address was received with great applause.

On motion, ex-Presidents Davis, of Chicago, Gross, of Philadelphia, Toner, of Washington, and Richardson, of New Orleans, were invited to seats on the platform.

THE METRIC SYSTEM.

DR. E. SEGUIN, of New York, made a report on the adoption of the metric system by the Association. On motion by Dr. Pallen, of New York, the consideration of the report was postponed until Thursday.

CONSOLIDATION OF SECTIONS.

DR. A. N. BELL, of New York, called up an amendment offered at the annual meeting in 1878, and moved its adoption. It provided for the consolidation of sections *four* and *five*, to be hereafter known as section *four*, on Medical Jurisprudence, State Medicine, and Public Hygiene, etc.

QUESTION AFFECTING REGISTRATION.

Dr. LILLEY, of New Jersey, asked whether a gentleman who was not in affiliation with any regular medical organization, when such organizations existed in the State in which he resided, could register as a permanent member of the American Medical Association upon the claim that he *had been* in affiliation with such organization. Referred to the Judicial Council.

The Association then adjourned, to meet on Wednesday, May 7, at 9.30 A.M.

WEDNESDAY, MAY 7TH—SECOND DAY.

The Association was called to order at 9.30 A.M. by the President.

Dr. Logan, Chairman of the Committee of Arrangements, announced the following for election as

MEMBERS BY INVITATION.

Drs. T. H. Morgan, of Cochran, Ga.; A. Means, of Oxford, Ga.; J. R. Humphrey, of Acworth, Ga., and E. M. Nolan, of McDonough, Ga.

The following named gentlemen were elected permanent members: Drs. C. A. Simpson and John M. Johnson, of Atlanta, Ga.; Dr. George C. Dugas, of Ga.; J. A. Beasley, of Alabama, and M. J. Ealey, of Lafayette, Ga.

MATERIAL FOR DISSECTION.

A telegram was read from Dr. J. A. Morton, of Columbus, O., announcing that the bill making provision for material for anatomical dissection had passed the Legislature of that State.

On motion by Dr. Atkinson, of Philadelphia, the congratulations of the Association were extended to Dr. Morton, who had been mainly instrumental in securing the passage of the law.

PRESIDENT'S ADDRESS.

On motion of Dr. A. C. Post, of New York, the Publication Committee was instructed to publish 5,000 copies of the President's annual address for *pro rata* distribution among the members of the Association.

DUTY ON QUININE.

Dr. Fricke, of Philadelphia, in accordance with instructions received from his County Medical Society, introduced a resolution asking that the American Medical Association request Congress to leave the present law regulating the duty upon quinine unchanged.

The resolution was laid upon the table.

Dr. Roberts, of Nashville, introduced a resolution asking Congress to remove the duty upon the alkaloids of cinchona.

Carried.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON PRACTICE OF MEDICINE, ETC., BY DR. THOMAS F. ROCHESTER, OF BUFFALO, N. Y.

YELLOW FEVER.

Dr. Rochester introduced his address by a reference to the epidemic of yellow fever which prevailed in the United States last year, and, with a view to answering the questions, Was it possible to ward off its invasion? or, in case of its appearance, to confine it within prescribed limits? he passed first to its *etiology*. Where the disease was born was known. It originated in the West Indies. It never originated *de novo* except in its primal birthplace. It could not be communicated from individual to individual by direct contagion, but through other media. The speaker then traced its mode of spread. Medicine would not cure it, nor would antiseptics or cleanliness prevent the progress of the disease. A *strictly enforced quarantine* was the means by which it must be arrested. Reference was then made to the successful quarantine at the port of New York. He believed that if any agent was ever found which would arrest the disease, it would be gasiform or aëriform. He concluded that part of his address, by urging the establishing of a permanent National Health Bureau.

TYPHOID FEVER.

Reference was first made to the propagation of typhoid fever by means of *drinking-water*, and the credit given to Dr. Austin Flint, of New York, for first directing the attention of the profession to that method about thirty-five years ago. Special reference was also made to a paper on typhoid fever, by Dr. Dr. Van de Warker, of Syracuse, and published in the *Popular Science Monthly*. Dr. Rochester then spoke of the propagation of the disease by means of ice, and cited several instances in which that mode of transmission was very apparent. He believed that the poison was not destroyed or impaired by freezing. A somewhat extended reference was then made to purification of sewage, and the opinion expressed that no sewer should be permitted to empty into a stream.

SANITARIA FOR THE TREATMENT OF PULMONARY PHTHISIS.

Under that head special attention was directed to Alpine sanitaria. Hygiene, in its largest sense, was recommended as the important factor in the management of the disease.

MATERIA MEDICA.

Instead of asking how little medicine was required, it was too common to act upon the principle of how much would be tolerated. Under that head attention was directed to certain new anæsthetics, the too promiscuous use of jaborandi, etc. The new Dispensatory was commended.

PHYSIOLOGY.

Dr. Rochester, under that head, referred to papers by Flint and Busey, Flint, Jr., Richardson, of Boston; Longworth, Bowditch, Whittaker, Loring, and others. In conclusion, reference was made to the telephone and the phonograph. Their possibilities could not be fathomed. The address was referred to the Section on Practical Medicine.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON STATE MEDICINE AND PUBLIC HYGIENE, BY DR. JOHN S. BILLINGS, OF WASHINGTON, D. C.

The number of patent ventilators and gas-traps was steadily upon the increase; but, in our knowledge of the causes of disease and the means of avoiding or destroying those causes, little or no positive advance had been made. So long as we had to contend with municipal and State authorities, which almost absolutely refused even the cost of obtaining reliable information, there was but little hope for satisfactory public hygiene.

If the law creating the National Board of Health was to succeed, it must be supported by medical men, and the call for aid from the Board should be responded to by the American Medical Association, which was the representative medical body of the nation. Its failure would, in a measure, be the failure of the medical profession, and its success would be their success.

The causes of want of interest in public hygiene by medical men were then noticed, and *First*, was the actual deficiency in accurate scientific knowledge upon the subject. There were but few physicians who would hesitate to act as health officers and give advice upon sanitary questions, and yet not one in one hundred had a thorough acquaintance with any one branch of public hygiene. Now, was it strange that such was the case, for the subject had for its true basis physics, biology, and political science.

Second. Another cause for the neglect of public hygiene was a distrust of the capacity and motive of some of those who were prominent as professed sanitarians, and that distrust was founded upon the necessary relations that existed between sanitarians and politicians. Such association, however, was inevitable.

The subject of *vital statistics* was then noticed, but

more especially the registration of deaths and disease. Such registration was a necessity to successful public hygiene. No scientific knowledge of the subject could be obtained until the character and the quantity of disease became a known quantity. Mortality statistics would not serve the purpose; and, until we learned how many cases of disease occurred under varying circumstances in different localities, no substantial advancement could be made. The difficulties of the registration of death statistics were then considered, and also the registration of disease. Special attention was directed to an opportunity to be offered for obtaining such statistics for the entire United States, as would be of positive value and furnish definite foundation for legislation with regard to public health. The opportunity would be afforded at the taking of the *next census*. He recommended that an appeal should be made to all the physicians in this nation, through the American Medical Association, to aid in furnishing the information needed. Books for the purpose would be sent to all physicians in the United States, as far as their addresses could be obtained, and they would be sent to any physician who made application for them.

An appeal was made to the medical press and to the profession to assist in the work.

The address was referred to the Section on Public Hygiene and State Medicine.

PRIZE ESSAYS.

Dr. N. S. Davis, of Chicago, Chairman of the Special Committee to report on the recommendation made by Dr. Richardson in his annual address, relative to encouraging original investigation in medical science by means of prize essays, reported in favor of making alterations in the by-laws providing for four annual prizes of two hundred and fifty dollars each.

The report was signed by Drs. Davis, Gross, and Toner.

As an amendment to the by-laws, the report, under the rule, went over for one year.

CHANGES IN THE PLAN OF ORGANIZATION—PROPOSED AMENDMENTS.

Dr. Keller's amendment, that nominations for officers should be made only from the members and delegates present at any meeting, was laid upon the table by a vote of 120 to 5.

Dr. Caldwell's amendment, providing for a section on neurology and electrology, was laid upon the table without dissent.

Dr. Hitchcock's amendment was tabled.

Dr. Maddux's amendment providing for a section on genito-urinary diseases gave rise to some discussion, and was referred to the Surgical Section for instruction by a vote of 78 to 73.

The following amendment, reported by Dr. N. S. Davis, of Chicago, namely: "And hence it is considered derogatory to the interests of the public and the honor of the profession for any physician or teacher to aid, in any way, the medical teaching or graduation of persons knowing them to be supporters and intended practitioners of some irregular or exclusive system of medicine," was opposed by Dr. E. S. Dunster, of Ann Arbor, Michigan, in a carefully prepared speech, was discussed by Dr. Davis, who suggested that, while he individually could not willingly teach students under such circumstances, the Association should be very careful about tying the hands of the profession in any respect, and bringing it into collision with public authority; and upon motion made by Dr. Pratt, of Michigan, was laid upon the table for one year.

COMMITTEE ON NOMINATIONS.

Drs. W. O. Baldwin, of Alabama; R. G. Jennings, of Arkansas; R. B. Cole, of California; C. Y. Chamberlain, of Connecticut; C. H. Richardson, of Delaware; J. M. Toner, of District Columbia; J. P. Wall, of Florida; G. G. Crawford, of Georgia; H. A. Johnson, of Illinois; J. F. Hibbard, of Indiana; H. B. Ransom, of Iowa; C. V. Motham, of Kansas; Dudley S. Reynolds, of Kentucky; E. S. Lewis of Louisiana; T. L. Estabrook, of Maine; T. B. Evans, of Maryland; L. B. Warner, of Massachusetts; J. H. Jerome, of Michigan; J. H. Murphy, of Minnesota; E. P. Gale, of Mississippi; A. B. Sloan, of Missouri; S. Lilly, of New Jersey; E. Grissom, of North Carolina; M. A. Pallen, of New York; W. H. Mussey, of Ohio; S. D. Gross, of Pennsylvania; C. H. Fisher, of Rhode Island; F. P. Porcher, of South Carolina; J. D. Plunket, of Tennessee; H. W. Brown, of Texas; A. S. Payne, of Virginia; S. Marks, of Wisconsin; W. H. Forwood, of U. S. Army; and T. J. Turner, of U. S. Navy.

The Association then adjourned, to meet on Thursday, May 8th, at 9.30 A.M.

THURSDAY, MAY 8.—THIRD DAY.

The Association was called to order at 9.30 A.M. by the President.

PERMANENT MEMBERS.

The following gentlemen were elected permanent members: Drs. W. J. Harrell, of Bainbridge, Ga.; S. C. McCormick, of Duluth, Minn.; Thomas R. Wright and R. C. Eve, of Augusta, Ga.; W. W. Evans, of Oxford, Ga.; J. H. Low, James B. Baird, and J. T. Johnson, of Atlanta, Ga.; and A. G. Whitehead, of Waynesboro, Ga.

MEMBERS BY INVITATION.

The following gentlemen were elected members by invitation: Drs. Thomas J. Jones, of Hogansville, Ga.; J. P. Rosser, of Conyers, Ga.; C. F. Patillo, of West Point, Ga.; F. R. Calhoun, of Euharley, Ga.; R. H. Jenkins, of Hogansville, Ga.; David G. Hunt, of Dalton, Ga.; L. B. Alexander, of Forsyth, Ga.; C. H. H. Sayre, of New York; and J. B. Carlton, of Athens, Ga.

DUTY ON QUININE.

The Secretary read a communication that had been addressed to the Chairman of the Committee of Arrangements, and purporting to come from Powers & Weightman, of Philadelphia, and C. T. White, of New York, in which the statement was made that if the duty on quinine was removed they could no longer continue its manufacture.

The communication was laid upon the table.

RESOLUTIONS OF RESPECT.

Resolutions relative to the death of Wm. N. Compton were introduced by Drs. Grissom, Platt, and Toner, and adopted by the Association.

RESOLUTION RELATING TO THE CENSUS.

Resolved, That the American Medical Association earnestly recommends to each and every physician in the United States that he shall furnish such information as is requested by the Superintendent of the Census, and that he shall keep such record of his cases for the year beginning June 1, 1879, as will enable him to make this information accurate and reliable. Adopted.

REPORT OF COMMITTEE ON OZONE.

Dr. Davis, of Chicago, Chairman of the Committee, reported, and offered the following resolution: *Re-*

solved, That a committee of *five* be appointed by the President, whose duty it shall be to investigate the practicability of carrying into active operation a plan for obtaining accurate meteorological and clinical observations, and report at the next meeting of the Association. Adopted.

THE REPORT ON NECROLOGY

was presented by DR. J. M. TONER, and referred to the Committee on Publication.

THE REPORT ON SANITARIA FOR CONSUMPTIVES

was presented as received from Dr. H. I. Bowditch, of Boston, and, at his request, the Committee was continued, in order that it might be able to make the report complete. At the request of the Chairman, Dr. Wm. Pepper, of Philadelphia, was added to the Committee.

REPORT ON CATALOGUE OF NATIONAL LIBRARY.

The report announced that Congress had made an appropriation sufficient to allow of the early publication of two volumes.

REPORT OF COMMITTEE ON PUBLICATION.

Thirteen hundred copies of the Transactions for 1878 were published.

The report was referred to the Committee on Publication.

TREASURER'S REPORT.

The balance in the treasury at date was $1,445.66. It was suggested that non-payment of dues for *two* instead of three years should work the forfeiture of permanent membership.

Report accepted and referred to the Committee on Publication.

REPORT OF LIBRARIAN.

The report showed that the library at present contained 2,816 volumes, exclusive of pamphlets.

Referred to Committee on Publication.

STATE MEDICAL SOCIETIES AND STATE MEDICINE.

DR. S. E. CHAILLÉ, of Louisiana, read a paper upon the above subject before the Section on State Medicine and Public Hygiene. By the Section it was referred to the Association, and was read in general session. From general facts with regard to State medicine, and practical conclusions based upon the position occupied relative to the subject by thirty-seven State Medical Societies, he brought forward two important questions which had not been sufficiently considered by the Association—1. What was State medicine? and, 2. What could the Association do to the end that the practice of State medicine could be promoted? The progress of State medicine was dependent upon the enlightenment of public opinion. State medicine was the application by the State of medical knowledge for the common weal, and embraced every subject for the comprehension of which medical knowledge, and for the execution of which State authority, were indispensable. With reference to State medicine, physicians were prone to dwell upon, and to denounce an existing evil, whatever it might be, and to urge its correction, but did not tell *how* it was to be done.

In answering this second question, Dr. Chaillé presented the progressive steps made in Great Britain with considerable detail, for he believed they were the steps which must be taken in this country. To the end of giving the greatest benefit which could arise from the proper practice of State medicine, he proposed a *Standing* Committee upon the more efficient organization of the Association and *all* its branches. Perhaps an executive council should be constituted and charged with the duty of devising ways and means to promote uniformity, as well as to strengthen and harmonize all of its practical operations. As at present constituted, the American Medical Association had little or no knowledge of its component parts; and a *head* which had no knowledge of its parts should be gotten rid of. He suggested that the Transactions of the Association be published after the manner of the Transactions of the British Medical Association. No physician residing in the United States should be elected either as a permanent member or as a member by invitation of the Association unless he was a member of the State Medical Society of his own State, if such an organization existed. Several propositions of like character, and affecting the re-organization of all County and State Medical Societies, were submitted, after which the paper was referred back to the Section on State Medicine for further consideration.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON SURGERY AND ANATOMY, BY DR. MOSES GUNN, OF CHICAGO, ILL.

DR. GUNN'S address consisted of a careful and close argument upon

THE PATHOLOGY OF SUPPURATION.

He reviewed the theories which have been advanced regarding the origin of pus, by Virchow, Cohnheim, and Billroth, and the conclusion was reached that suppuration was not an unmixed evil. It was a dangerous thorn, from which occasionally, at least, a fragrant flower was plucked.

The address was referred to the Section on Surgery and Anatomy.

REPORT OF THE COMMITTEE ON NOMINATIONS.

DR. S. D. GROSS, Chairman of the Committee on Nominations, announced that the committee was ready to make a report.

DR. E. GRISSOM, Secretary, read the following, which was unanimously accepted:

For President—Lewis A. Sayre, M.D., of New York.

For Vice-Presidents: *First*—R. Beverly Cole, M.D., of California. *Second*—E. M. Hunt, M.D., of New Jersey. *Third*—H. O. Marcy, M.D., of Massachusetts. *Fourth*—F. Perye Porcher, M.D., of South Carolina.

For Treasurer—Richard J. Dunglison, M.D., of Pennsylvania.

For Librarian—William Lee, M.D., of District of Columbia.

For Committee on Library—Johnson Eliot, M.D., of District of Columbia.

Next Place of Meeting—New York City.

Time of Meeting—The first Tuesday in June, 1880.

For Assistant Secretary—Walter R. Gillette, M.D., of New York.

For Committee of Arrangements—Dr. S. O. Vander Poel, of New York, Chairman; Drs. Stephen Smith, William M. Polk, Robert F. Weir, Charles Inslee Pardee, A. A. Smith, and Thos. T. Sabine, of New York; Dr. Joseph C. Hutchison, of Brooklyn; Dr. M. H. Burton, of Troy, N. Y.; and Dr. E. H. Parker, of Poughkeepsie.

For Committee on Prize Essays—Drs. Austin Flint, Sen., A. C. Post, J. W. S. Gouley, and M. A. Pallen, of New York City; and J. C. Hutchison, of Brooklyn, N. Y.

For Committee on Publication—Drs. W. B. Atkinson, T. M. Drysdale, A. Fricke, S. D. Gross, Casper Wistar, R. J. Dunglison, of Pennsylvania; and Dr. William Lee, of District of Columbia.

The Committee also reported the following nominations for Chairmen and Secretaries of Sections for 1880:

I. *Practice of Medicine, Materia Medica, and Physiology*—Dr. J. S. Lynch, of Maryland, Chairman; and Dr. W. C. Glasgow, of Missouri, Secretary.

II. *Obstetrics and Diseases of Women and Children*—Dr. Albert H. Smith, of Pennsylvania, Chairman; and Dr. Robert Battey, of Georgia, Secretary.

III. *Surgery and Anatomy*—Dr. W. T. Briggs, of Tennessee, Chairman; and Dr. J. Powell Adams, of Minnesota, Secretary.

IV. *Medical Jurisprudence, Chemistry, and Psychology*—Dr. James F. Hibbard, of Indiana, Chairman; and Dr. Thomas F. Wood, of North Carolina, Secretary.

V. *State Medicine and Public Hygiene*—Alabama, Jerome Cleveland, M.D.; Arkansas, W. H. Hawkin, M.D.; California, W. F. Cheeny, M.D.; Colorado, C. Dennison, M.D.; Connecticut, C. A. Lindsley, M.D.; Delaware, Wm. Marshall, M.D.; District of Columbia, Thomas Antisell, M.D.; Florida, J. P. Wall, M.D.; Georgia, J. P. Logan, M.D.; Illinois, W. A. Johnson, M.D.; Indiana, J. F. Hibbard, M.D.; Iowa, J. A. Blanchard, M.D.; Kansas, D. W. Stomont, M.D.; Kentucky, S. Brundeis, M.D.; Louisiana, S. E. Chaillé, M.D.; Maine, A. P. Snow, M.D.; Maryland, F. B. Evans, M.D.; Massachusetts, H. I. Bowditch, M.D.; Michigan, H. B. Baker, M.D.; Minnesota, C. N. Hewitt, M.D.; Mississippi, Wirt Johnson, M.D.; Missouri, H. H. Mudd, M.D.; Nebraska, J. Block, M.D.; New Hampshire, G. P. Conn, M.D.; New Jersey, D. A. English, M.D.; New York, A. N. Bell, M.D.; North Carolina, J. C. Walker, M.D.; Ohio, J. C. Reeve, M.D.; Oregon, H. Carpenter, M.D.; Pennsylvania, B. Lee, M.D.; Rhode Island, E. M. Snow, M.D.; South Carolina, R. A. Kenlock, M.D.; Tennessee, T. A. Acberson, M.D.; Texas, H. W. Brown, M.D.; Virginia, F. D. Cunningham, M.D.; Vermont, L. C. Butler, M.D.; West Virginia, E. A. Hildreth, M.D.; Wisconsin, J. T. Reeve, M.D.; United States Army, Joseph R. Smith, M.D.; United States Navy, A. L. Gihon, M.D.

VI. *Ophthalmology, Otology, and Laryngology.*—Dr. Bolling A. Pope, of Louisiana, Chairman; and Dr. Eugene Smith, of Michigan, Secretary.

For Judicial Council.—Drs. W. O. Baldwin, of Alabama; N. S. Davis, of Illinois; J. P. Gray, of New York; E. L. Howard, of Maryland; A. N. Talley, of South Carolina; D. W. Stomont, of Kansas; and J. P. Logan, of Georgia.

For Committee on Necrology.—Dr. J. M. Toner, of District of Columbia, Chairman; Drs. R. F. Michel, of Alabama; F. W. Hatch, of California; J. B. Cummings, of Arkansas; Chas. Dennison, Colorado; G. W. Russell, of Connecticut; J. H. Richards, of Delaware; J. P. Wall, of Florida; T. S. Hopkins, of Georgia; J. H. Hollister, of Illinois; G. L. Sutton, of Indiana; H. B. Ransom, of Iowa; C. V. Notham, of Kansas; D. S. Reynolds, of Kentucky; E. A. Lewis, of Louisiana; E. F. Sanger, of Maine; J. Morris, of Maryland; L. F. Warner, of Massachusetts; G. E. Ranney, of Michigan; D. W. Hand, of Minnesota; J. M. Richmond, of Missouri; J. R. Black, of Nebraska; L. G. Hill, of New Haven; H. D. Didama, of New York; J. Blain, of New Jersey; F. J. Hayward, Jr., of North Carolina; Starling Loving, of Ohio; Frank Woodbury, of Pennsylvania; C. H. Fisher, of Rhode Island; Manning Simons, of South Carolina; J. B. Lindsley, of Tennessee; H.W. Brown, of Texas; O. F. Fassett, of Vermont; L. S. Joynes, of Virginia; R. W. Hazlett, of West Virginia; J. T. Reeve, of Wisconsin; J. J. Woodward, of District of Columbia, United States Army; and A. L. Gihon, of United States Navy.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN, BY DR. E. S. LEWIS, OF NEW ORLEANS, LA.

The address by Dr. Lewis consisted of a *resumé* of the literature during the past year upon abdominal palpation, puerperal fever, laparo-elytrotomy, change of posterior position, ligation of the cord, traction upon the lower jaw, treatment of post-partum hemorrhage, treatment of cancer of the cervix uteri, and the treatment of uterine fibroids.

The address was referred to the Section on Obstetrics, etc.

THE METRIC SYSTEM.

The Association took up the report made upon the metric system, by Dr. E. Seguin, of New York, and adopted the following resolutions:

Resolved, 1. That the American Medical Association adopts the international metric system, and will use it in its transactions.

2. Requests that those who present papers at its future meetings employ this system in their communications, or reprints thereof.

3. Requests the medical boards of the hospitals and dispensaries to adopt the metric system in prescribing and recording cases; and that the faculties of the medical and pharmaceutical schools adopt it in their didactic, clinical, or dispensing departments.

4. Requests the physicians familiar with the metric system to help their confrères and the druggists in its application; and the delegates present at this session to work up the acceptance of the metric system by their respective county and State societies.

5. Requests our president to name a metric executive committee, of which he shall be the ex-officio chairman, and whose task will be to give unity and rapidity to this metric movement.

DUTY ON IMPORTED BOOKS AND INSTRUMENTS.

Dr. Chaillé, of Louisiana, introduced a resolution petitioning Congress to pass a law removing the duty from any one book or instrument which should be imported to assist in the personal pursuit of scientific study. Adopted.

COPYRIGHT ON DRUGS.

Dr. Brodie, of Detroit, introduced a resolution which he asked to have referred to the Judicial Council: *Resolved*, That the use of articles thus protected by copyright is a distinct violation of the code of ethics. It was so referred.

Dr. Turnipseed, of South Carolina, offered an amendment providing for the formation of a section to examine and report regarding the merits and demerits of surgical and gynæcological instruments presented at the meetings of the Association. Laid over under the rule.

The Association then adjourned to meet on Friday, May 9th, at 9.30 A.M.

FRIDAY, MAY 9TH—FOURTH DAY.

The Association was called to order at 9.30 A.M. by the President.

MEMBERS BY INVITATION.

The following gentlemen, on recommendation by the Committee of Arrangements, were elected members by invitation: Drs. J. J. Jones, R. N. Ross, and E. Cross, of Arkansas.

REPORT FROM THE SURGICAL SECTION.

The Surgical Section, through its Chairman and Secretary, reported that the proposition to establish a section upon genito-urinary diseases had been withdrawn.

RESOLUTIONS AFFECTING THE ORGANIZATION OF THE AMERICAN MEDICAL ASSOCIATION, OF STATE AND OF COUNTY MEDICAL SOCIETIES.

The following resolutions, based upon Dr. Chaillé's paper, were offered:

Resolved, That a committee on the more efficient organization of this Association and of its branches consisting of *five* members, be appointed by the President.

Resolved, That this committee be instructed to devise and recommend ways and means to secure greater uniformity as well as greater strength of organization of the State medical societies, and all their auxiliary branches.

With these ways and means the following be considered.

1. The compilation of a model code of detailed regulations for the government of State and county medical societies.

2. The requirement from any State medical society of an annual report, to contain certain data (to be specified) necessary to show the condition and progress of each of these State societies and of their auxiliary branches; to also contain a brief summary of the peculiarities of this organization, and of the measures being used by it to promote medical organization; and still further, to contain a brief summary of the laws of the State in reference to State medicine, and of the efforts being made to promote the practice of State medicine. Such reports should be published in the transactions of each State medical society.

3. The publication, in annual transactions of this Association, of a consolidated report of the above reports from each State, together with special notice of the meritorious work done by any of the branches of this Association.

4. The substitution of a periodical medical journal for the present volume of transactions.

5. The non-recognition by this Association of State medical societies which make no provisions encouraging the organization of auxiliary societies in counties, etc.

6. The advisability of electing no person, either as permanent member or member by invitation, unless such person be a member of a State medical society, provided that there be such a society, and recognized by this Association, in his State.

7. The advisability of refusing to admit to this Association delegates of the societies auxiliary to the State societies, unless the certificates of delegation be endorsed by the authorized officer of the State Society.

8. The advisability of refusing to admit any delegates except those selected from and elected only by voting members who have paid all fees due to their respective county and State societies, and of establishing the principle that only those members of branch societies who are entitled to vote, and have paid all fees due, shall be entitled to delegates.

9. The advisability of urging every medical college to have not less than one lecture delivered to every graduating class on the importance to the profession and to the people of medical organization.

The President appointed as committee to report upon the above resolutions: Drs. Foster Pratt of Michigan; S. D. Gross, of Pennsylvania; N. S. Davis, of Illinois; A. N. Bell, of New York, and Alonzo Garcelon, of Maine.

A communication relating to

INTERVENTION OF PHYSICIANS IN EDUCATION

was received from Dr. R. J. O'Sullivan, of New York, and the request that the committee be continued was granted.

DELEGATES TO FOREIGN MEDICAL SOCIETIES.

Dr. E. Seguin, of New York; Dr. L. T. Yandell, of Kentucky; Dr. J. M. Da Costa, of Pennsylvania; Dr. Moses Gunn, of Illinois; and Dr. L. Turnbull and Dr. E. Warner, of Paris, were elected as delegates to represent the Association in medical societies in Europe; and Drs. J. C. Hutchinson, of New York, and Wm. Brodie, of Michigan, as delegates to the medical societies in Canada.

RESOLUTIONS REGARDING THE PUBLICATION OF THE VOLUME OF TRANSACTIONS.

The Committee on Nominations reported the following resolution: *Resolved*, That the Committee on Publication be instructed to advertise for proposals to publish the transactions of this Association in *six* of the largest cities of the Union, and that the contract be awarded to the lowest and most responsible bidder.

DR. A. M. POLLOCK, of Pennsylvania, moved to lay the resolution on the table. Motion was lost.

DR. FOSTER PRATT, of Michigan, moved to amend by striking out the words "in six of the largest cities of the Union." The amendment was lost by a rising vote of ayes 21, nays 27. The original resolution was then adopted.

HONORARIUM FOR THE SECRETARY.

On motion made by DR. GRISSOM, of North Carolino, an honorarium of six hundred dollars ($600) was voted for the Permanent Secretary.

COMMITTEE ON OZONE.

The following Committee on Ozone was appointed by the President: Drs. N. S. Davis, of Ill.; J. M. Toner, of D. C.; S. M. Bemiss, of La.; W. H. Geddings, of S. C.; and H. O. Marcy, of Mass.

METRIC EXECUTIVE COMMITTEE.

The following Metric Executive Committee was announced: Dr. Theophilus Parvin, of Ind., Ex-officio Chairman; Dr. E. Seguin, of N. Y.; Dr. E. Wigglesworth, of Mass.; Dr. J. R. Weist, of Ind.; Dr. E. R. Squibb, of N. Y.; and Dr. Wm. B. Atkinson, of Pa.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY, BY DR. H. KNAPP, OF NEW YORK.

DR. KNAPP'S address consisted of brief references to a number of subjects, and a notice of some of the more important advancements made in the departments of ophthalmology and otology.

Iridectomy in chronic glaucoma was giving way to *sclerotomy*. *Sympathetic ophthalmia* was transmitted by the ciliary instead of the optic nerve, as advocated by some. Reference was made to *cataract extraction*, to the use of *eserine* and *duboisine*, to ophthalmoscopes, to lid-holders, to tumors of the eye, and to works on pathological anatomy.

Otology showed less extensive, but no less marked advancement than ophthalmology; and reference was made to discoveries in acoustics and the management of mastoid inflammation. A number of instruments and pathological specimens were exhibited.

The address was referred to the Committee on Publication.

PRIZE ESSAYS.

The Committee on Prize Essays submitted the following report: That the prize of one hundred dollars ($100) be awarded to Dr. Allan McLane Hamilton, of New York City, for an essay on certain forms of primary and secondary (local) degeneration of the lateral columns of the spinal cord, with special reference to an infantile rare form.

RESOLUTIONS OF THANKS.

Dr. N. S. Davis, of Chicago offered resolutions of thanks to the President of the Association, to the Governor of the State of Georgia, to the Mayor of the city of Atlanta and to all her citizens, to the various railroad and steamship companies that had extended favors, to the local press, and to the Committee of Arrangements, expressing the hearty gratitude of the American Medical Association for the uniform kindness, hospitality, and courtesy which its members had received.

The resolutions were unanimously adopted by a rising vote.

The report of the delegates to the Canada Medical Association was presented by Dr. Wm. Brodie, of Detroit, Mich., and entered upon the minutes.

REPORT OF JUDICIAL COUNCIL.

The Judicial Council reported in reference to Allen County matters, Indiana, that it be postponed until the next annual meeting; and that the American Medical Association did not regard the delegates from the Arkansas Medical Association as entitled to registration, because it did not regard the Society which they represented as a State medical society.

The report was accepted and entered upon the minutes.

REPORT OF COMMITTEE ON STATE BOARDS OF HEALTH.

The Committee on State Boards of Health, who are required to report annually the results of their efforts, state that they addressed the usual memorial to the executives of the States still without State boards of health, and were assured by some of the executives that they would use their efforts to the end desired. They are happy to announce that the legislature of the State of Delaware has adopted such an act, and the board of health of that State is now in process of organization. We now have nineteen State Boards of Health: Alabama, California, Colorado, Connecticut, Delaware, Illinois, Kentucky, Louisiana, Missouri, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Rhode Island, Tennessee, Texas, Virginia, and Wisconsin. [Signed] W. B. Atkinson.

The last business in order was the instalment of new officers.

Dr. Parvin, in appropriate remarks, thanked the Association for the honor conferred upon him, the uniform courtesy which it had extended to him during the deliberations of the present meeting, and in laudatory words introduced the President-elect, Dr. Lewis A. Sayre, of New York, who expressed his feeling of appreciation for the highest honor that could be bestowed upon a medical man in this country.

On motion, the President declared the Association adjourned, to meet in the city of New York, on the first Tuesday in June, 1880.

A Philanthropic Bequest.—M. Möring, director of the Department of Charities in France, has just received from a generous benefactor, who chooses to remain unknown, the sum of 300,000 fr. ($60,000), to be expended in the establishment of a home for superannuated workers in metals.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 1, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

After the reading and approving of the minutes, Dr. E. H. Janes, from the Committee on Admissions, reported favorably on the names of the following candidates for resident fellowship, who were afterward duly elected: E. Sanders, Glover C. Arnold, John J. Milhau, Clement Cleveland, William H. Welch, John Shrady, and P. F. Chambers.

There were present, as guests, Dr. David King, of Newport, and Dr. J. W. Roseburgh, of Hamilton, Canada; and these gentlemen were invited by the President to take seats beside him.

The Librarian, Dr. Laurence Johnson, announced that since his last report there had been received thirty-eight bound volumes, seventeen unbound volumes, and eight hundred and seventy-seven pamphlets and journals, and mentioned a number of the names of the donors.

The Corresponding Secretary, Dr. John G. Adams, then made a brief report, and also presented to the Academy a framed copy of the programme of the old Broome Street School of Medicine, which was organized in 1836. It was started by six physicians and surgeons, of whom Dr. Post and himself were now the only survivors, and he believed that in it the first course of spring and autumn lectures ever given in New York was delivered. It was also, as far as he knew, the first private medical school ever gotten up in this city.

After a report by the Committee of Ways and Means, through its chairman, Dr. James Anderson, the paper of the evening was read by Frank H. Hamilton, M.D., LL.D., on

POSTURE AS A MEANS OF RELIEF IN STRANGULATED AND INCARCERATED HERNIA, WITH A GENERAL CONSIDERATION OF THE MECHANISM OF REDUCTION.

In a late number of the *British Medical Journal* there had been published an interesting account of a case of intussusception in a child, which was cured by means of copious injections of thin gruel into the bowel. Dr. Blaker, the physician in whose practice it occurred, attributed the good result obtained mainly to the three following points:

1. Complete anæsthesia, induced by chloroform.
2. An early resort to the injection of gruel.
3. The position of the child when the injections were made, viz.: lying on its back, with the nates raised upon a pillow.

Dr. Hamilton was inclined to attribute more benefit to the last agency than the gentleman reporting the case seemed to do, and the main object which he had in writing the present paper was to set forth his views in regard to the importance of posture in the reduction of strangulated hernia, as well as the reasons why certain positions of the body were of service. When he first contemplated it, he intended it to include a consideration of spasmodic colic and ileus also; but, on account of the extensiveness of the subject of hernia, he was obliged to postpone those topics until some other occasion.

He had collected fourteen cases of strangulated hernia occurring in his own practice, in which a reduction had been accomplished mainly through the agency of posture, but for lack of time he would be able to recite only two or three of them as specimens. Case Number Three of these was as follows: In 1865,

while on duty as one of the attending surgeons to Charity Hospital, his attention was called by the house-surgeon to a male convict suffering from an indirect inguinal hernia which had become strangulated. When he first saw him ineffectual efforts at reduction had been kept up during the whole of the preceding night, and the man was now very anxious to take an emetic, as he said that once before, when his hernia had become strangulated, this had relieved him. It was deemed unadvisable to administer an emetic; but while the house-surgeon was making the preparations for an operation, which it was feared would have to be resorted to, Dr. Hamilton concluded to try the effect of placing the man on a steep inclined plane, with the head downward. Accordingly, the foot of the bed was elevated until its legs rested upon a table; when, in about ten minutes, he had the satisfaction of seeing the hernial tumor disappear altogether. Another case was related very similar to this, which had occurred previously in Buffalo. In 1871, Dr. Hamilton was called to see, in consultation, a gentleman who three days before had been seized with a severe pain in the region of the gall-bladder, which was at first naturally supposed to be due to the passage of a gall-stone. Somewhat more than twenty-four hours before he was called in, however, it was discovered that a hernia (although he had never before had anything of the kind) had descended into the scrotum, and was now strangulated.

He directed that the feet of the patient should be lifted on the shoulders of a strong man; but, after this position had been tried for some time, the strangulation still continued as before. Complete anæsthesia by means of ether was now secured, and then the experiment of elevating the feet in the same manner was again tried; when immediately there followed a successful reduction.

Besides the fourteen cases mentioned above, Dr. Hamilton had seen quite a large number of others in which reduction had been secured by means of posture, but of these he had preserved no special record. Then, in former papers published by him in the Bellevue and Charity Hospital reports, notes had been given of twenty-three cases in which other methods in addition to that of posture had been employed; but even in these he regarded this as the chief agency of successful reduction.

THE CAUSES OF STRANGULATION.

In order that the mechanism of reduction might be properly appreciated it was necessary that we should arrive at some definite conclusions as to the true causes of strangulation. It had long been taught by various authorities that

MUSCULAR SPASM

was a most important element in its causation, and in support of this view the writer quoted a passage from Velpeau, which concluded as follows: "All muscular contraction *must* increase the strangulation." Sir Astley Cooper, in speaking of strangulation at the upper ring, stated that a portion of the intestine protruded under the transversalis and internal oblique muscles, and was compressed by them. Ferguson spoke of the use of anti-spasmodics in reduction, and many other authors might have been quoted to the same effect, if time had permitted.

Dewitt said that muscular spasm was *formerly* considered to be a cause of strangulated hernia; but the writer feared that many surgeons still retained this old idea. Dr. Hamilton believed that Velpeau and Sir Astley Cooper were entirely wrong in their opinions on this subject, and he remarked that whatever anatomical reason might be cited in favor of their view, there remained a sufficient pathological reason why this was erroneous, viz., that muscular spasm was always too intermittent and brief in duration to constitute the cause of a condition like strangulated hernia. Such a view of the causation could not therefore be accepted, notwithstanding the high authorities that could be quoted in its support. Skey not only positively denied the agency of muscular spasm, but stated that this was now altogether an antiquated and exploded notion. Antiquated it undoubtedly was; but he regretted that it was hardly as yet to be considered as exploded, since so many still seemed to adhere to it, in spite of the arguments that were adduced to disprove it.

The next point to investigate was, what was

THE EFFECT OF NORMAL MUSCULAR TENSION.

As a general rule, the position of the patient had no effect upon hernial apertures. Flexing and rotating the thigh inward was frequently recommended in order to facilitate the return of a hernia; but it could be easily shown that such manœuvres were in no way instrumental in relaxing the internal ring, at which the strangulation exists in the vast majority of instances. In hernias of long standing the canal usually acquired an almost cartilaginous hardness, and it was not, therefore, capable of being either enlarged or diminished by posture. Consequently, the diameter of the ring was not affected; and besides, in a considerable proportion of cases the strangulation occurred in the sac itself in these old hernias. The conclusion that must be arrived at, then, was that there were but very few cases in which either muscular spasm or normal muscular action were capable of influencing hernial apertures. In

FEMORAL HERNIA

the internal or crural ring was almost always the seat of stricture, and it had long ago been demonstrated that posture had no effect in giving relief here. Velpeau and other authorities had acknowledged this; and one reason was the important anatomical position that Gimbernat's ligament held in reference to this condition.

We had now to consider whether in

DIAPHRAGMATIC AND VENTRAL HERNIAS

(where there were no natural openings), muscular spasm might not be directly concerned in the causation. In consequence of its position, diaphragmatic hernia was entirely removed from observation; but the writer had had the opportunity of seeing a large number of cases of ventral hernia produced by stabs and other similar wounds, as well as some due to gunshot injuries, which one would naturally suppose to be a more frequent cause of this than is actually the case. All such strangulated hernias were difficult to reduce, until the patient had been brought under the influence of an anæsthetic. But in no case had simple relaxation of the muscles proved sufficient; and this was not difficult to explain. In all strangulated hernias the hernial opening was stretched to the utmost. If it were not, there would of course be no strangulation. Consequently, instead of a simple slit, there was now a circular aperture. If we were to suppose, for example, that there was a body like the finger, or a piece of omentum blocking up such an opening, it would be silly to imagine that any amount of muscular relaxation would release it. The same was true in regard to the intestine, which, as a general rule, practically represented a solid mass.

By what other means, whether local or general,

could we hope to relax these apertures? The old surgeons were accustomed to resort to such local measures as the application of warm fomentations, liniments, belladonna ointment, etc. Even at the present day there were good surgeons who recommended warm fomentations, and Prof. Gross advocated cold fomentations; but he believed it would be a difficult task for such authorities to show how fomentations, whether warm or cold, could have the effect of relaxing such openings. There was much more speciousness in the idea that this result could be accomplished by the employment of such general agents as chloroform and other anæsthetics, bloodletting, tobacco-enemata, etc.

That such means were instrumental in relaxing the apertures had seemed a necessary inference; but Dr. Hamilton was not willing to accept this conclusion, since he did not believe that it was founded on sound anatomical and pathological premises. On the other hand, there were more satisfactory explanations of which we might avail ourselves; and it was important to bear in mind in this connection that it was the muscular fibres alone (and not the tendons of muscles), which were relaxed by such agents.

What, then, was

THE TRUE THEORY OF REDUCTION

in the great majority of instances? It had been sufficiently demonstrated, he thought, that it did not ordinarily consist in the relaxation of the hernial canal or rings; and he would now endeavor to show that the reduction was in reality effected by the employment of external pressure, in the form of taxis, and by internal traction: the operation of these forces always being greatly facilitated by paralysis of the muscles. Of the value of taxis, tested as it had been by such long and universal experience, there could be no doubt; but of the practical efficiency of internal traction, less was understood by the profession. This kind of traction might be caused in a variety of ways. Thus, emetics might produce it by the sudden upheaval of the abdominal viscera toward the upper portion of the cavity which they occasioned; and the same was true of cold water dashed suddenly upon the bare skin. In both cases, however, there was also a contraction of the muscles. Emetics, in addition, had sometimes the effect of inducing a violent anti-peristalsis in the intestines. Cathartics were probably of service only by exciting peristaltic or anti-peristaltic movements, and Skey had stated that they caused a dragging-up of the bowel from the sac. But in actual practice neither emetics nor cathartics were often now employed; because, if they were not successful in causing a reduction, they were apt to do harm by increasing the tendency to inflammatory action. In order to facilitate whatever means were made use of, it was generally recommended that the bladder should be emptied, and that, if there was any accumulation of gas in the lower part of the bowels, it should be removed. For the latter purpose, as well as the removal of fœcal matter, enemata were serviceable, and, besides, sometimes had the effect of exciting violent peristaltic efforts. Tobacco-enemata had long been held in repute in strangulated hernia, and were of great service in relaxing the abdominal muscles; but Dr. Hamilton could not believe that this or any other agent (except perhaps in very rare instances) was capable of causing an enlargement of the hernial openings. Still, even when tobacco was employed, he thought that the peristalsis set up by it was its most efficient result, and that the muscular relaxation resulting from its use was of secondary importance to this. It was an agent not without danger, however, and death had been known to follow from the prostration which it caused. Chloroform, bleeding, and warm baths, all had the effect of relaxing the muscles which resisted the return of the hernia (not of relaxing the apertures), and of these chloroform was the most efficient. Of how much service such an effect was, we could better appreciate if we considered the subject of abdominal wounds for a moment. In knife-stabs and other short wounds in the abdomen, it was almost impossible to prevent extrusion of the viscera; while in large incisions, such as were made in ovariotomy, for instance, there was no tendency of this kind, because the great muscles were thereby completely relaxed. In the same manner the muscles were paralyzed by such agents as those mentioned above, and, consequently, their resistance to taxis overcome. The effect of opium was probably much the same, although its action was somewhat more difficult to explain.

Dr. Hamilton at this point wished to make the suggestion that while the patient was under the influence of such remedies, and the abdominal muscles thus relaxed by them, the hernia might actually be withdrawn by violent peristalsis or anti-peristalsis in the intestine. It was well known that peristaltic movements often continued for some time after death, and he himself had seen this demonstrated in several instances in the case of calves. Niemeyer and other observers had noticed a number of invaginations of the intestines at the autopsies of children who had died of hydrocephalus, which had been produced by the violence of *post-mortem* peristaltic movements. Might it not be true that in the same way these peristaltic movements went on under the temporary paralysis produced by chloroform, bleeding, etc., just as in labor uterine contractions continued, and were sometimes increased when the patient was under the influence of an anæsthetic? It seemed reasonable to suppose, therefore, that one way, at least, in which the above agents acted was by putting the abdominal muscles in such a condition that their contractions could not interfere with the continuance or increase of peristalsis.

(To be continued.)

Obituaries.

CHARLES MURCHISON, M.D., LL.D., F.R.S., OF LONDON, ENGLAND.

Dr. Murchison died very suddenly from disease of the aortic valves, on the 23d of April last. In him medicine has to lament a man who not only ornamented the profession by a noble and upright character, but who with untiring and conscientious industry, was always adding to medical knowledge.

Dr. Murchison graduated in medicine at Edinburgh in 1851, having, while a student, won many prizes and medals. His career since then has been so eventful with honors to himself, and noteworthy to the profession, from his contributions to its literature, that we can hardly chronicle everything. He finished his education in Italy and Paris, and then returned to Edinburgh for a time. In 1853 he went to India, and was soon appointed Professor of Chemistry in the Bengal Medical College. Returning to England he

became, in 1855, Fellow of the College of Physicians, and later, Demonstrator of Anatomy and Lecturer on Botany at St. Mary's Hospital. During these years he wrote considerably on botanical subjects. In 1856 he began his pathological studies, and although a man who was always careful and exact in his writings, he had soon contributed no less than 311 papers to the London Pathological Society. These were based largely on the pathological collections at St. Mary's, and they added greatly to the prestige of the society and the hospital, as well as to his own reputation.

In 1856 he was appointed assistant physician to King's College Hospital, and also to the London Fever Hospital, his connection with the latter institution resulting in his crowning work on Continued Fevers. In 1860 he became lecturer on pathology at the Middlesex Hospital, and assistant physician at the same place. He was made physician to the London Fever Hospital in 1861.

Resigning this he became physician and sole Lecturer on Medicine at Middlesex Hospital, in 1866. In 1870 he received the degree of LL.D. from Edinburgh University. In 1871 he became Lecturer on Medicine at St. Thomas's Hospital. In 1873 he was appointed Croonian Lecturer of the Royal College of Physicians, in which capacity he delivered his lectures on functional derangements of the liver. He subsequently became President of the Pathological Society, and one of his latest honors was his appointment as physician in ordinary to the Duke and Duchess of Connaught.

During all these years his literary activity was extraordinary. Besides translating Frerichs' "Diseases of the Liver," and other foreign works, he was a frequent contributor to medical journals and the transactions of societies. In 1862 he published his great work on *The Continued Fevers of Great Britain*. In this he first made the unalterable distinctions between typhus and typhoid, and drew the ætiology and symptoms of the continued fevers with such exhaustive clearness, as made him at once the authority above all others on the subject.

We have had space to do little but catalogue a partial list of his achievements and give some indication of the amount of his work. But even this will show the talents and tremendous industry of the man.

For the last nine years of his life he had been aware of a disease of the heart, but had continued his work, and died in the midst of it while attending to a patient.

THOMAS J. CORSON, M.D.

Thomas J. Corson, M.D., died at Trenton, N. J., May 10th, after a long and painful illness, in the fifty-first year of his age. He was a prominent citizen and widely known throughout the State of New Jersey. During his career he held several high positions of trust and honor. He was a member of long standing in the Masonic order, having attained to the thirty-third degree, was High Priest of the Royal Arch Masons and Grand Commander of the Grand Commandery of Knights Templar. At one time he was president of the State Medical Society. It was at his instigation, in the winter of 1878, that the investigation into the management of the State Prison was gone into, he having preferred charges against the attendants for cruelty to the convicts, which at the time created such widespread interest. He was a quiet, unassuming man, and was noted for his sound medical common sense.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 4 to May 10, 1879.

Sutherland, C., Colonel and Surgeon. Granted leave of absence for five months on Surgeon's certificate of disability. S. O. 105, A. G. O., May 3, 1879.

Storrow, S. A., Major and Surgeon. Granted leave of absence for one month. S. O. 38, Dept. of the Platte, May 5, 1879.

Bartholf, J. H., Capt. and Asst. Surgeon. Relieved from duty at Alcatraz Island, and assigned to temporary duty as Post Surgeon at San Diego Barracks, Cal. S. O. 44, Div. of the Pacific and Dept. of California, April 28, 1879.

Winne, C. K., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort McPherson, and assigned to duty at Fort Washakie, Wyo. T. S. O. 38, C. S., Dept. of the Platte.

Worthington, J. C., 1st Lieut. and Asst. Surgeon. To report by letter to the Medical Director for special duty. S. O. 50, Dept of Arizona, April 23, 1879.

Biart, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for thirty days, with permission to apply for an extension of thirty days, on Surgeon's certificate of disability. S. O. 88, Dept. of the Missouri, May 5, 1879.

Randolph, J. F., Major and Surgeon. Having been found by an Army Retiring Board incapacitated for active service, he is granted leave of absence until further orders, on account of disability, to take effect May 1, 1879. S. O., 108, A. G. O., May 7, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.— **Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 3, 1879.**

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 3, 1879.	0	6	191	0	39	22	0	0
May 10, 1879.	0	3	143	1	46	25	4	0

Chicago Medical Society.—At the annual meeting of the Chicago Medical Society, held April 7th, Dr. Edmund Andrews was elected President, and Dr. R. G. Bogue, Vice-President.

A resolution was adopted authorizing the appointment of a committee to memorialize the Mayor-elect, Hon. C. H. Harrison, to place the Department of Health of this city beyond the pale of politics, as is the case now with the Police and Fire Departments, and to retain in his position of Commissioner, Dr. De Wolfe, in the interest of sanitary science and good government. In the vote on the resolution there was not a dissenting voice. Dr. De Wolfe was appointed under a republican administration, while the incoming Mayor is a democrat.

The Austrian Universities.—The Austrian government has published a comparative statement of the condition of the universities of the Empire at the periods of the two Paris Expositions, 1867 and 1878.

In 1867 there were in Austria six universities, four complete, viz., Vienna, Prague, Gratz, and Cracovia; and two incomplete, *i. e.*, without a Faculty of Medicine, viz., Innspruck and Lemberg. At present there are seven universities, five of which are complete, Innspruck having received a Medical Faculty in 1869. When the government decided to found a new university, all the nationalities of the Empire sought eagerly for the favor, but Czernovitz was finally chosen as its site. The decree for its establishment is dated September 30, 1875. During the present century, two Austrian universities, that counted their age by centuries, have been abolished, viz., that of Salzburg, which was closed in 1810, after having existed for two centuries, and that of Olmutz, suppressed in 1855, after having seen three centenaries.

The budget of the universities in 1867 was 1,242,088 florins ($621,044). If we take the University of Vienna as an example of the changes brought about in ten years, we find that in 1867 there were 66 regular professors, 31 assistant professors, and 72 tutors (privat docentes), while at the present time the numbers are respectively 88, 44, and 91.

Simple Treatment for Sciatica.—Dr. Ebrard, of Nimes, states that he has for many years treated all his cases of sciatica and neuralgic pains with an improvised electric apparatus, consisting merely of a flat iron and vinegar, two things that will be found in every house. The iron is heated until it is sufficiently hot to vaporize the vinegar, and is then covered with some woollen fabric, which is moistened with vinegar, and the apparatus is applied at once to the painful spot. The application may be repeated two or three times a day. As a rule, the pain disappears in 24 hours, and recovery ensues at once. The rationale of the process is plain: the iron is magnetized by the heat, and, if the acid be then added to it, electricity is produced, and the same effects are obtained as with an electric battery.—*Jour. de Méd., etc., de Bruxelles.*

Examination for F.R.C.S.E.—The questions below were put to candidates for their primary examination for Fellowship at the Royal College of Surgeons of England, November 15th:

1. Describe the dissection required to expose the upper surface of the first rib, and mention in order, from before backward, the several structures in immediate relation with that bone.

2. A transverse section is made through the cranium and its contents, passing through the odontoid process. Mention in order, from above downward, the several structures which would be divided.

3. Describe the development of the vertebral column and mention the form of the vertebral centrum characteristic of each of the primary divisions of the vertebrata.

4. Describe the structure of the supra-renal capsule, and give the evidence which at present exists regarding its function.

Pyriform Swelling of the Larynx in Tuberculosis.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Dr. Seiler said he had been interested in the anatomy of the larynx, and had recently ascertained that very peculiar symptoms were manifested by this organ in the very earliest stages of consumption. An opportunity to investigate this subject was recently offered in the case of an infant which had died of acute tuberculosis. In this case, of which he had made sections of the organ, which he exhibited, the arytenoid cartilages were found to be swollen at one extremity, so as to assume a pear shape. This "pyriform swelling" of these cartilages appeared so early in the course of the disease that by means of it a very early diagnosis might be made and thus much be done to arrest if not cure the trouble.

Leprosy in Spain.—A letter from Madrid informs us that leprosy has made its appearance in several localities in the province of Alicante, and that the authorities, alarmed by the number of cases and of deaths, intend to establish a special lazaret. It is very generally believed that this horrible disease is only met with at the present time in Asia and Africa, but unfortunately this is a mistake. It still exercises its ravages in Europe, especially in Spain, where it has attained dimensions that furnish serious cause for alarm. In the province of Valencia, 116 cases of leprosy, 71 of which proved fatal, were reported last year. Of the 45 survivors, 17 are women. Even the above number, however, is probably below the truth, as the majority of the affected persons use every effort to hide their malady from the official inquisitors and even from their nearest relatives. At Saint-Simat de Valldigna, the inhabitants call leprosy the "mal de Maure," and at Enguerra it is called the "mal de Saint-Lazare." In the provinces of Valencia and Alicante, it manifests itself under two forms: the tubercular, or leprosy of the Greeks, and the vulgar (anæsthetic), or leprosy of the Jews. Cases of recovery are extremely rare. Near Valencia, there has existed for a long time a hospital set apart exclusively for lepers; all who refuse to enter the hospital are isolated and subjected to the most rigorous hygienic rules.

Homœopathic Resolutions.—The Homœopathic Medical Society of the State of New York, at its last annual meeting, adopted the following as supplementary to their resolutions of last year:—"That we clearly and emphatically distinguish between a 'therapeutic law' and the laws of chemistry, physics, and hygiene; and while in the treatment of disease the formula, '*causa sublata tollitur effectus*,' is often to be remembered and used with advantage, yet such laws and such action in no way infringe upon or invalidate the therapeutic law, '*similia similibus curantur*.'

That we have not in the past, nor do we now, yield one tittle of our rights as physicians to use any means or appliances of the general profession to aid in the treatment of our patients (under the homœopathic law), or in the palliation of their suffering through the application of any physical, surgical, chemical or hygienic law, leaving the question of such use to the individual judgment of the practitioner, assured that they will be the least used by those who are the best acquainted with our *materia medica*, and best able to wield its immense *armamentarium*.

"In relation to the dose of the *similimum* proper to be exhibited, we discover that the most brilliant triumphs of homœopathy have been achieved by the use of attenuated medicines; yet, as a matter of fact, we find that even the crude drug in minute doses will exhibit power to become a remedy under our therapeutic law.

"But, as we as yet have not been able to deduce a law to guide us in determining the amount of a drug to be used, or the attenuation to be exhibited in order to meet the demands of any case most accurately, this society, while on the one hand it refuses to join with those who decry attenuated medicines, on the other will not refuse to recognize as brethren those who, governed by their honest convictions, can only exhibit crude medicines or the lowest attenuation in the treatment of the sick."—*Evening Post.*

Original Lectures.

SCLEROSIS OF THE POSTERIOR AND THE LATERAL COLUMNS OF THE SPINAL CORD.

A Clinical Lecture Delivered at Charity Hospital.

By A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

(Reported for The Medical Record.)

Lecture I.

Gentlemen:—I propose to-day to present a number of patients in the cases of whom are illustrated two very interesting diseases: 1st, that commonly known as locomotor ataxia; and, 2d, primary sclerosis of the lateral columns of the spinal cord, or spasmodic spinal paralysis.

I will first present three patients who illustrate most perfectly the three stages of locomotor ataxia.

Case I.—This man, æt. 57, and married, has suffered from the disease for two years. Before the appearance of any symptoms he had for a long time indulged freely in venereal pleasures, and was the subject of repeated priapism and nocturnal emissions, the erections occurring, as a rule, without any special erotic thoughts or stimuli.

He first complained of shooting pains in the back and limbs, numbness of the lower extremities, and a feeling of constriction about the waist and ankles, but no headache. Shortly after he noticed that he had difficulty in walking, and found that he had but poor control over his feet, and it soon became difficult for him to walk in the dark; and this difficulty in walking has steadily increased.

Six months ago the movements of the upper extremities first began to be ataxic.

The patient, as you see, is anæmic, badly nourished, and presents a cachectic appearance. He rises from his chair unassisted, but cannot stand with his eyes closed. His gait is ataxic, but there is no paralysis whatever, nor atrophy, and when I endeavor to hold his foot, his leg and thigh being flexed, while he tries to extend them, you will see I have great difficulty in doing so. There is marked anæsthesia. The anæsthesia is of the tactile variety, for he has no difficulty whatever in perceiving changes in temperature, but cannot tell anything about the location of the point of the æsthesiometer, or the nature of an object which is brought in contact with his skin when his eyes are closed. He has slight constipation and urinary trouble. There are also shooting pains in the extremities, with marked loss of co-ordination.

As he sits with his legs crossed, I will give him a sharp blow upon the ligamentum patellæ, and it is found that there is a sudden extension of the corresponding leg. This phenomenon can be observed in both legs. It has been said by Westphal and Erb that the absence of this phenomenon is pathognomonic of the early stage of the disease, but the records of several recent observers have led us to regard it as a symptom which possesses only doubtful value. This has been met with the statement that in cases where it was present there was an extensive transverse myelitis, but in the cases I have seen I am sure no such condition of affairs has existed. Of the three patients before you it will be found that in two this property of the tendons is entirely absent, while in the third, the patient before you, it appears to be exaggerated. In one of these patients it will be seen that only one muscle is not involved, namely, the vastus internus. In that respect it illustrates Westphal's views, he having called attention to the exemption of this muscle. It is probable that the most important of the early symptoms of the first stage are those of a painful character. The first symptom is usually a sense of fatigue, which has associated with it pains of two varieties: 1st. Those which shoot down the back, the thighs, and the inner surface of the legs. Sometimes these pains proceed from below upward. They are the so-called lightning pains, because of their violence and brief neuralgic character, and their intensity. 2d. Those which consist of a species of exquisite superficial hyperæsthesia, sometimes occupying a well defined space of variable extent. These spaces may be found at almost any part of the lower extremities.

Another early sensory symptom, which has been observed in the cases before you, in fact, is present in about two-thirds of all the cases, is pain in the back. After this, in constancy of appearance, comes the "constriction-band," a feeling which the patient compares to the sense of tightening which would be produced by a cord drawn about the body. This, it may be remarked, is not peculiar to locomotor ataxia, as has been stated by some authors, for it may also be a symptom of myelitis; and I have often seen it in connection with cases of spinal irritation, but in the latter disease it is apt to be situated higher up, and associated with disturbed respiration, while the constriction-band of locomotor ataxia is usually about the waist, or just below the border of the ribs. In the first stage there are other irregular sensory disturbances, such as visceral pains, joint pains, which are often mistaken by patients for subacute rheumatism, and certain affections of the eyes, notably of the ocular muscles, producing diplopia and strabismus. The duration of the first stage is variable. It may last for two or three years, or, as has been known in rare instances, it may extend for ten or fifteen years.

The commencement of the second stage is symptomatized by various disturbances of motility which you see markedly displayed in the patients exhibited to-day. The disturbance depends chiefly upon loss of muscular sense, connected very closely with the anæsthesia which occurs at the end of the first stage. It will be noticed that the gait of these patients is in no way suggestive of paralysis. It is rather the reverse, for the feet are planted widely apart, and the heel first touches the ground, while, as you know, the gait of the paraplegic patient is characterized, by dragging of the toe and inner side of the foot, and scraping the floor; while in the disease I will presently describe—lateral sclerosis—the toes drag over the floor; but there is a species of talipes equinus and great rigidity.

It will be found that in many patients the first indications of the existence of the disease is a worn condition of the back part of the heel of the shoe. The movements, as well as those of the upper extremities indicating the extension of the disease upward, or the formation of new foci of sclerosis, have recently been described by Onimus as an irregular expenditure of ill-directed force, a certain amount of the muscular power being expended in certain parts of an action when it is not needed. The will being actively exerted, the apparatus of execution and control are defective—and we may compare the individual to an engine with a broken governor or cut-off.

Later on, there is a species of paralysis which evidences extension of the disease into other parts of the cord. This is illustrated in the patient who presents the symptoms of the third stage of the disease.

When the disease has reached the second stage it will be noticed that there is a decided increase in the disturbances in walking, and the patient will be unable to perform even movements of the simplest kind. It is especially difficult for him to turn, as for retracing his steps. In a case which I have under observation in private practice, the patient becomes so much demoralized when crossing the street, by the approach of a wagon driven rapidly, that his legs refuse to support him and he falls to the ground.

In all these patients the voluntary control of the muscles is so imperfect that a fright of any kind will make them utterly helpless. During the first stage, or even before any sensory symptoms, there is usually developed a lesion at the fundus oculi. With the ophthalmoscope the optic nerve expansion will be found to be the seat of white atrophy.

This is one of the most important symptoms of the fully developed disease, although it is, as I have said, an early origin, and is well illustrated in the second patient presented. In the third case we have a picture presented which cannot be mistaken.

This woman suffers from decided optic nerve atrophy, and her pupils are contracted. She has the ataxic gait in a marked degree, and tactile sensibility is lost. In addition to other symptoms she presents one which is quite characteristic of the advanced stage of the disease, namely, pulmonary trouble, which has lasted for several years. In a large number of the cases, in fact, nearly all I have seen in which death took place, the termination is preceded by pulmonary tuberculosis, and I am convinced that in this disease, as well as in progressive muscular atrophy, the trophic cells of the anterior columns, the respiratory centres, and the roots of the intercostal nerves become involved, and in nearly all cases there is shallow breathing and weak action of the thoracic wall. With the exception of the ocular symptoms, which have already been mentioned, it is rare that any cerebral symptoms are manifested except it may be vertigo, which is sometimes present at the beginning of the disease.

In the case of the woman before you, there has been an upward extension of the disease, and probably brain involvement, as symptomatized by epileptoid attacks, which may be always safely considered as evidence of multiple lesion.

In these cases there is more or less mental disturbance. In fact, according to Obersteiner, and it has been my own experience also, a certain amount of mental trouble, sometimes only slight, perhaps scarcely recognizable, occurs in almost every patient of this kind. In the beginning, the temper of the person is very apt to undergo decided changes. She becomes morose and irritable, and is very liable to suffer from fits of mental depression.

This patient presents a discoloration in patches of the skin, which are suggestive of the existence of old herpes.

Skin lesions, whether herpes or pemphigus, have been shown by Charcot to be very frequently associated with locomotor ataxia, and I am inclined to think their value in connection with other spinal disorders is frequently overlooked. I have patients at present under treatment who, as soon as their spinal symptoms become at all aggravated, are subject to attacks, not only of herpes, but in one case there is a plentiful crop of acne upon the shoulders, while the vertebral spines in the same neighborhood are quite tender upon pressure, and modifications in the course of the disease are expressed by a change in the eruption. I am unable, to-day, to show you a case which presents the joint enlargements sometimes seen well marked in the latter stages of this disease. It has been found, however, that various bone changes, such as atrophy, are not rare, and that the bones of these patients are very easily fractured. According to Charcot and Erb, joint enlargements begin at a very early stage of the disease. Muscular atrophy I need not tell you is a late complication, and is indicative of extension of the disease into the anterior parts of the cord. You will remember, then, that the disease has three stages; the earliest symptoms being those of pain in the back and the extremities, the latter of a shooting character, and often visceral colicky pain, sometimes with vomiting; that there is anæsthesia, especially of the plantar surfaces; that reflex action is, sooner or later, abolished, though to electricity it is increased; that the patients have a peculiar objective symptom, a sensation as though standing upon fur or some soft substance; that there is no loss of motor power whatever; that often the *tendon reflex* is abolished; that there are changes at the expansion of the optic nerve; that the patient gets a peculiar jerking walk, so that he is ultimately helpless, and takes to his bed; that he cannot stand with his eyes closed; that there are symptoms of general physical weakness; that obstinate constipation and bladder trouble are common in all stages; and that the termination in most cases is by pulmonary disease, cystitis, extension to the medulla, general exhaustion following bedsores, or else the patient is carried off by some other disease. Although the term "progressive" has been used by some authors, it by no means follows that the disease does not have periods of remission. In the case of the woman before you, one year ago she was bed-ridden, while to-day she is able to walk with a cane. How long this condition of apparent improvement will last, I am unable to say, but such periods, of several months' duration, are by no means rare.

Etiology.—As to the cause of the disease in these patients, but little is known. In the first case, there is no history of a cause unless it may have been excessive venery, which I feel convinced has been too frequently assigned to an important place in the etiology of the affection. It is doubtless true that exposure to cold and dampness has more to do with the development of spinal sclerosis than any other influence perhaps, excepting alcoholism. Several of my hospital patients are sailors and laboring men, who are exposed in this manner.

Prognosis.—With reference to prognosis there is but little to be said. Recovery is exceedingly doubtful. The reported cures have probably been among patients in whom either diagnosis has not been made, or who have suffered from the disease in its early stages.

Treatment.—In the early stages of the disease I have used ergot with apparent good results, and I believe it to be more valuable in the treatment of inflammatory conditions of the nervous system than any drug at our command.

Later in the disease, a variety of remedies have been suggested, none of which possess any special efficacy, with the exception, perhaps, of phosphorus and cod-liver oil, the descending galvanic current and spinal cauterization.

For the relief of the pains, hypodermic injections of atropia, morphia, or muscarine, act most favorably.

For the same purpose the galvanic current may be used, the positive pole being placed over the painful point in the back, if such a point exists.

Warm sulphur baths, of a temperature not exceeding 90° F., are useful adjuvants.

They can be conveniently made by simply dissolving an ounce or so of sulphuret of potassium in water.

If, while treatment is being applied, certain symptoms are modified, do not be too sanguine with reference to ultimate results, for, in all probability, one of the remissions already alluded to has taken place. In some cases it is well to send the patient at once to a warm climate, for dampness and cold may greatly aggravate the sensory symptoms.

PRIMARY SCLEROSIS OF THE LATERAL COLUMNS OF THE SPINAL CORD.

The next patient brought before you is suffering from a very rare and interesting disease, known as primary sclerosis of the lateral columns of the spinal cord. You will find, by reference to your anatomy and the special works upon nervous histology, that the tract lying between the posterior and anterior nerve-roots contains three subdivisions. Lesions involving two of these subdivisions have been described by Tuerck, Fleischig, and others. The form of sclerosis which this patient undoubtedly suffers from invades that part of the lateral column lying in immediate contact with the anterior border of the posterior nerve-roots, and extends to the periphery of the cord. The lesion more commonly found is a secondary degeneration of the lateral columns, occupying a small territory in nearly the same situation; but the lesion does not extend to the periphery. It is separated from the cortex by the direct cerebellar columns.

Sclerosis of the lateral columns of the cord is characterized by entire absence of any sensory symptoms, which are so strikingly manifested in sclerosis of the posterior columns, and illustrated by the three cases just shown.

The three marked symptoms of lateral sclerosis are loss of power, spastic muscular contractions, and exaggeration of the reflex activity of the tendons. As negative symptoms there is integrity of sensation, no atrophy, and no bladder or rectal trouble.

The patient before you, J. V. P., æt. 28 years, and a native of the United States, gives no history of hereditary nervous disease. His family seem to have been healthy. About eight years ago, after a great deal of dissipation, he first noticed that he very easily became fatigued; that his legs felt heavy, and, if he persisted in walking, they grew stiff. He also staggered, stubbed his toes, and sometimes fell. He had good control over his bladder and rectum, and sensation was not affected, except that he occasionally experienced slight formication, but never anæsthesia. There were no disorders of co-ordination, no cerebral trouble, and no sharp pains in the extremities. He however, gradually became helpless, and finally was obliged to use crutches. There was a strong contraction of the tendo Achillis, so that the ball of the toes touched the ground when walking; in other words, both feet were in the condition of talipes equinus, the toes scraping the ground at every step, while the feet became entangled with each other, in consequence of a forcible contraction or spasm of the adductor muscles of the thighs.

It will be noticed that his general condition is good. Although there is no vertebral disease present, you will observe, as he sits on the stool, that his body is permanently bowed to such an extent that a large transverse fold is made in the abdominal tissues. This has been alluded to by Charcot as a common symptom in these cases. His legs are stiffly extended, he is unable to lift his heels more than a few inches from the floor, and he is utterly unable to rise from the sitting posture or to walk. As I strike the tendo Achillis, it will be noticed that the tendon reflex is present to a marked degree. In these cases, however, this symptom is variable, and sometimes a very slight excitation will cause violent movements. In other cases the condition of reflex excitability is so great that when the patient stamps upon the floor the entire limb shakes violently. You will also notice that, when I pass my finger ever so lightly over the abdomen, there is a convulsive upheaving of the muscles, and this I regard as of great importance as a diagnostic sign.

There is no atrophy of the muscles except what has followed disuse of the limbs. The atrophy which is present is general and not such as is found in paralytic atrophic diseases, where separate groups of muscles are affected, while others retain their normal contour.

The arms, you will notice, are not affected, and there is no cranial nerve paralysis whatever.

But very little is known with reference to this disease, for, altogether, less than forty cases have been reported. Men seem to be chiefly affected. In but one of the eighteen cases reported by Erb the upper extremities were affected by the disease. Like ataxia, it depends upon a decidedly slow process of degeneration, and most of the patients already observed have suffered from the disease for several years. So far no autopsy has been made which shows uncomplicated disease of the lateral columns. It is hardly fair to argue, as some have, that primary degeneration of the lateral columns is an unlikely lesion. It is possible, as we all know, for a certain group of spastic symptoms to be connected with certain lesions of the gray matter, but in every one of the cases brought forward the symptoms were by no means, classical and should be thrown out of the question. I do not see why primary degeneration of the lateral columns, or tabes spasmodica, is not as likely to exist as a pathological entity as posterior spinal sclerosis or locomotor ataxia.

Etiology.—Very little is known with reference to the etiology of this disease. Betous reports cases which he believed to have been produced by metallic poisoning. Berger reports others occurring in patients of the same nationality and residing in the same region of country, and has made the inference that the disease is possibly due to some special climatic influence. These observations, however, have but little weight, for such cases have been observed in all parts of the world.

Diagnosis.—With reference to diagnosis, there is, at the present time, but little occasion for mistake. At first the disease was confounded with the form of sclerosis affecting both the anterior and lateral columns, and described by Charcot under the name amyotrophic spinal paralysis, but its distinct character was afterward recognized. Certain forms of hysteria with contractures may closely simulate the disease in question, but the violence of the symptoms and the sex of the patient will militate strongly against the chances of mistake.

Treatment.—With reference to treatment, I have only to repeat what has already been said in connection with the cases of locomotor ataxia. At my next lecture I will show you cases of secondary degeneration in the spinal cord, a disease which, in certain respects, resembles very strongly the case just presented.

Original Communications.

LARYNGEAL PHTHISIS.

By F. H. BOSWORTH, M.D.,

LECTURER ON DISEASES OF THE THROAT AT THE BELLEVUE HOSPITAL MEDICAL COLLEGE.

(Read before the County Medical Society, Monday, March 24, 1879.)

PART II.

(Concluded from No. 20, p. 463.)

THE diseased parts in laryngeal phthisis are extremely irritable and exquisitely sensitive, and the object should always be kept in view of accomplishing the treatment with as little irritation as possible. If then our medication can be deposited on the parts, without the instrument touching them by which they are conveyed, it is an end to be desired. The spray and powder insufflator accomplish this; the brush, the sponge, and the probe necessarily touch the diseased parts and are liable to do harm; the writer long ago abandoned their use from this consideration.

In a recently published work by Lennox Brown, of London, the use of sprays for making laryngeal application is condemned on the very surprising ground that they are unphysiological—an objection which unquestionably holds good, not only in regard to sprays, but also in regard to a large proportion of the procedures to which physicians are compelled to resort. He recommends the brush as preferable; one certainly fails to find any physiological precedent or justification for the introduction of the brush into the larynx where the introduction of fluids in a state of finely divided atomization is condemned. A pretty large experience in the use of sprays has so far convinced the writer of their superior efficacy over all other methods of applying medicated fluids to the upper air-passages, that he confines himself largely to their use; and in laryngeal phthisis, above all other diseases of the upper air-passages, the conviction is held that no other method is so little irritating, is so well tolerated, or is so efficacious. Pursuing the plan of treatment indicated above, it is the almost invariable rule that the applications are not only well, but gratefully borne, and followed by immediate relief to the subjective symptoms.

The above plan of treatment is for the stage of ulceration; the earlier stages of the disease are treated in the same way, with the omission of the use of iodoform, which, as stated above, is only used for its specific action in ulceration.

Inhalations, as a rule, are useless or of very limited efficacy in laryngeal phthisis. The volatile remedies which may be applied in this manner exercise so little of curative or controlling influence in this disease that their use is a waste of time; those remedies which are of most benefit by their local action cannot be volatilized. Lupulin, opium, cannabis indica, conium, and other sedatives are of some benefit in allaying pain, but it is limited. Benzoin, turpentine, creasote, and iodine, are, as a rule, too irritating.

Among the instruments in most frequent use in the treatment of laryngeal phthisis and other diseases of the upper air-passages, is the steam atomizer; this is an ingenious and attractive little instrument, but nevertheless an instrument of mischief. Its use is of undoubted benefit in many cases of acute inflammation of the fauces and neighboring parts; but it is extremely doubtful if it is of any service in the chronic forms of disease; it encourages and promotes those features of catarrhal inflammation which it is the effort of the physician to control, viz., swelling, congestion, relaxation, distention of the blood-vessels, and hypersecretion. It is undoubtedly the hot steam which is the mischief maker, and it more than counterbalances the good that may be accomplished by the medicated fluid which it is used to atomize.

It is often desirable that the patient should have some method of using medicated solutions during the intervals of treatment; and for this purpose there is nothing better than the little Cologne atomizers, such as are found on many toilet-tables. The best of these is the Delano atomizer, with the long tube. It is sold in most drug stores. The fluid for use may be the carbolized alkaline solution given as a cleansing solution. To this may be added a sedative if indicated, such as a drachm of Magendie's solution to the ounce.

In the earlier stages of the treatment it is desirable that the patient be seen generally as often as every second day; but that should be governed by the duration of the relief which is given at each sitting. At the commencement it will often be necessary to give daily treatment; but if the progress of the case be favorable it will soon be necessary to repeat the treatment but once a week, or even in two weeks.

These measures failing to relieve or arrest the progress of the disease, the question of tracheotomy arises as a remedial measure in the earlier stages of the disease, before œdema with dyspnœa have occurred, which, of course, imperatively demand the operation.

The consideration which operates in favor of tracheotomy is the entire rest thereby secured to the larynx from the movements of phonation and respiration, thus putting the parts in the most favorable condition to get well. The consideration which operates against tracheotomy is the total ablation of a large and important part of the upper air-passages, by which the inspired air is rendered warmer, moister, and cleaner before it reaches the lungs. This consideration should never be lost sight of; and if the objection can be obviated by proper measures, which will occur to any one, it would seem that we have a resource which might more frequently be adopted. The operation is a simple one, and is rarely attended with any bad results due to the operation itself—such as shock, excessive hemorrhage, etc.

In Case II. the operation was performed after six months of rather irregular attendance at the clinic without much relief. She lived four months with comparative freedom from the painful features of the later stages of laryngeal phthisis. The disease seemed to be arrested, and she died of the pulmonary disease.

In Case XXVIII. the patient was a workman in a wire factory, his especial business being to temper the wire, an occupation which compelled him to breathe the irritating vapor from the tempering-pot. He asserted that all the workmen in the room with him suffered from throat disease and catarrh.

The direct cause of his laryngeal phthisis was his occupation. His health becoming impaired, he developed tuberculosis, being in the first stage only when first seen, though the larynx was in the advanced stage of the epiglottic form of laryngeal phthisis. He came to the clinic December 21, 1877, and was treated for three weeks with relief, when he disappeared. He was seen again about the middle of February, and found in a most deplorable state; his food was regurgitated, breathing and talking painful, swallowing almost impossible for food or drink, sleep broken and restless,

and cough almost incessant. There was no dyspnœa. Tracheotomy was done March 7th, and, although he was in an extremely weak condition, the operation was attended with no perceptible shock. He soon swallowed nourishment without pain, and fell into a quiet sleep, and passed his first comfortable night for two weeks. He lived eight days with comfort and comparative freedom from pain, and died on the ninth day of an attack of acute miliary tuberculosis, which carried him off in less than twenty-four hours. This attack was possibly brought on by the introduction of the tube, his surrounding being such as to interfere very much with the faithful carrying out of the directions as to the temperature of the room, moisture, attention to the tube, etc.

Of course remedies should be given to correct the general condition—cod-liver oil, iron, quinia, etc.—but it is not the province of this paper to discuss general medication.

A brief résumé is given of the cases on which these observations are based.

Case I.—J. W., æt. 27, tinsmith, came to me September 1, 1877. Father died of phthisis. Has had more or less throat trouble for three years; has had bad cough for four months, with loss of flesh; has had severe pain in throat, with aggravation of cough and painful deglutition for two months. Lungs showed deposits and softening at each apex. Larynx: ulceration of true and false cords and commissure; epiglottis not involved. Under treatment four months; ulcer entirely healed; painful subjective symptom entirely relieved. Remaining chronic laryngeal catarrh.

Case II.—A. Z, æt. 18, single, seamstress, came to me September 4, 1877. Family history good. Is well nourished and in apparent good health, but for two years has had throat trouble, hoarseness, and irritable cough; lungs healthy. Larynx shows chronic laryngeal catarrh, with the appearances described as the second stage of laryngeal phthisis, viz., thickening of the commissure and arytenoid, with gray infiltration on the laryngeal face of the interarytenoid fold. She developed extensive ulcerations, and grew worse gradually, and on March 1, 1878, tracheotomy was performed to relieve subjective symptoms, followed by marked improvement in symptoms, but she died of catarrhal phthisis in June, 1878.

Case III.—M. G., New York, æt. 32; painter. Family history good. Came to me September 10, 1877, with a history of impaired health, with cough of two years' duration. I found him to be suffering from chronic catarrhal pneumonia of the right lower lobe, and also from Bright's disease. While under treatment he developed extensive ulceration of the laryngeal mucous membrane, by the different stages described, resulting in considerable loss of tissue, and attended with the usual subjective symptoms. The disease progressed unfavorably under the plan of treatment adopted, which consisted of the application of strong solutions of nitrate of silver, etc.; but when the milder plan described was begun he commenced to improve, and at the end of six months was completely cured. Died of acute œdema glottidis from Bright's disease.

Case IV.—M. K., Ireland, æt. 40; foundryman. Family history good. Came to me November 10, 1877, with the history of a cough and progressive loss of flesh lasting for six months, and of serious throat trouble, with pain and distress in swallowing, for three months. There were deposits at the left apex. Larynx showed ulceration, involving arytenoid commissure and ventricular band; epiglottis not affected. He was under treatment for two months, during which time the improvement was marked and most satisfactory, when he ceased his attendance at the clinic.

Case V.—Thos. Conway, Ireland, æt. 46; coachman. Two brothers died of consumption. Came to me in January, 1878; spent much time in the stable, breathing the ammoniacal fumes from the stable-yard, and was conscious of its irritating his throat more or less. Six months before I saw him he caught a severe cold, and commenced to cough and suffer with painful deglutition. When I saw him he had deposits in both lungs, and the larynx was in the ulcerative stage of laryngeal phthisis. Epiglottis not involved. Under treatment he was relieved somewhat, but his attendance was irregular and he finally disappeared.

Case VI.—G. C., New York, æt. 22; morocco factory. Family history good. While suffering from malaria in July, 1877, caught a severe cold, which was followed by cough and pain in chest; lost flesh and became very weak. In December commenced to suffer very much from distress in his throat, with pain on swallowing. In January came to me in a condition of great emaciation with an almost constant cough. Weight 98 pounds, his usual weight being 135. The lungs showed catarrhal pneumonia—right lower lobe; the larynx was in the stage of fully-developed laryngeal phthisis, the ulceration involving the true and false cords with the arytenoids and epiglottis, which was very much thickened. At the end of nine months' treatment the ulcerations were entirely healed. The patient increased from 98 lbs. to his normal weight again, and is virtually cured; the lung trouble has resolved; the cough has left him; there remains in the larynx the cicatrices of the old ulcers, with the little papillomatous growths which are so often found in laryngeal phthisis.

Case VII.—M. K. H., Ireland, æt. 28. Family history good. Came to me January 12, 1878, with a history of severe cough for three months, and for one month pain and difficulty in deglutition, with regurgitation of food. Lungs showed deposit at left apex, with a few moist râles. Larynx showed third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. Under treatment improved slowly, but surely, each sitting giving marked relief. Ceased coming after two months' attendance.

Case VIII.—John Coffey, Ireland, æt. 37; wheelwright. Family history good. Came to me January 15, 1878, with a history of cough extending back for two years, and of troublesome throat symptoms of four months' standing. Examination showed chronic catarrhal pneumonia of the right lower lobe of the lungs, while the larynx showed infiltration of the mucous membrane of the right false cord, extending to the commissure and aryepiglottic fold, with small points of ulceration. Under treatment six months, with the result of entirely curing the ulceration, there remaining simply a moderate degree of chronic catarrhal laryngitis.

Case IX.—Philip Bolger, Ireland, æt. 31; moulder. One brother died of consumption. Came to me with history of cough, with loss of flesh for two years; for two months has had serious trouble with his throat. Examination shows deposit of tubercle at each apex; softening and extensive cavities. Larynx in third stage of laryngeal phthisis, the ulcer involving false chord of right side and arytenoid commissure, with considerable thickening and infiltration of the parts. At the end of six months was entirely cured of the ulceration, and ceased coming. He died during the summer from a diarrhœa, with no return of any throat symptoms.

Case X.—Mary Miles, Ireland, æt. 37; widow. Fam-

ily history good. Came to me February 1, 1878, with history of cough and loss of flesh of eighteen months' standing; for three months had considerable trouble with the throat, which was gradually growing worse. Examination of lungs showed cavities in left apex, with deposit at right side. Larynx showed arytenoids, commissure, and aryepiglottic folds swollen and infiltrated with ulceration involving right ventricular band and true cord. Was under treatment for five months, and was entirely cured. Died August 8th, with no return of throat symptoms.

Case XI. Kate Ward, Ireland, æt. 33; married. Family history good. Came to me November 1, 1877, with a history of cough and loss of flesh dating back two years, while for six months she has been suffering more or less with the throat, and getting worse of late. Examination of lungs shows deposit at each apex, with softening on left side, and cavities. Suffering very much from the pain and distress in eating and drinking. Larynx showed thickening and infiltration, involving the arytenoids, commissure, aryepiglottic fold, and the epiglottis. Small points of ulceration on false chord and on crest of epiglottis. Under treatment nine months. Entirely cured of laryngeal phthisis; remains chronic laryngeal catarrh.

Case XII.—Thos. McCaffray, Ireland, æt. 41; maltster. Family history good. Came to me March 1, 1878, with history of lung trouble, as shown by cough, and loss of flesh of seven months' standing, and of throat symptoms of two months' duration. Examination of lungs showed deposit at left apex, with commencing softening. Examination of larynx showed second stage of laryngeal phthisis, not the fully developed ulceration, but gray thickening, involving arytenoids, commissure, and false chord. Under treatment four months. Entire relief of subjective symptom, and arrest of the ulcerative process; a mild laryngeal catarrh remaining.

Case XIII.—H. Higgin, Ireland, æt. 39; porter. Mother died of phthisis. Came to me April 18, 1878, with the history of a hacking cough and irritable throat of two years' duration. Of late considerable pain and difficulty in deglutition; general condition bad. Examination of lungs failed to detect any trouble. Examination of larynx showed infiltrated condition of arytenoids, commissure, and ventricular bands, with small ulceration on left band, extending to arytenoid. Under treatment eight months. Ulceration entirely healed, and all subjective symptoms relieved; mild laryngeal catarrh remaining.

Case XIV.—Andrew Patson, Ireland, æt. 28; plasterer. Father and two sisters died of phthisis. Came to me May 8, 1878, with the history of lung trouble dating back three and a half years, and serious throat trouble for two months. Examination of lungs showed cavities in each lung. Examination of larynx showed the whole of the upper larynx involved in the ulcerative process, the epiglottis being much swollen; the subjective symptoms were of a very distressing character. The treatment gave considerable relief, and at one time he was quite free from pain referable to the throat. The lung disease progressing, he died October 15th.

Case XV.—Amelia Bryen, New York, æt. 20; single. Family history good. Came to me June 20, 1878, with history of cough of two years' duration, and throat symptoms of six months' standing, and, of late, very painful. Examination of lungs showed deposit at left apex, and commencing softening. Larynx: ulcerative process involving largely the whole lining membrane of the organ, the epiglottis being thickened and deformed. Under treatment there was some relief and apparent improvement for a time, but it was not progressive. She ceased attendance.

Case XVI.—John Allen, New York, æt. 31; broker's clerk. Family history good. Came to me July 6, 1878. For eight years has had more or less cough; three years ago severe hemorrhage, which has recurred several times since. For a month has been suffering with his throat; deglutition painful and difficult. Examination showed deposit at left apex; larynx showed swollen condition of parts, with ulceration of left arytenoid, anterior face: the whole membrane coated with slimy and unhealthy looking mucus and muco-pus. Under regular treatment for two months with entire relief; since then comes in about once a month for treatment as his laryngeal catarrh becomes worse.

Case XVII.—Frank Langly, Pennsylvania, æt. 37; actor. Father, mother, and two brothers died of consumption. Came to me July 1, 1878. Had had lung trouble for a year, with more or less throat trouble for six months. Examination showed large cavities in each lung, with the larynx in the second stage of laryngeal phthisis, the parts being considerably thickened and infiltrated, though no fully developed ulceration. Under treatment he experienced almost entire relief from his painful throat symptom, though there remained considerable laryngeal catarrh.

Case XVIII.—Wm. Singleton, New York, æt. 29; shoemaker. One brother died of phthisis. Came to me in July, 1878. Lung symptom dating back three months, and throat trouble only one month. Examination shows deposit, with a few moist clicking râles at left apex, and the larynx in the second stage of laryngeal phthisis—the stage of infiltration. His attendance at the clinic was very irregular, though each sitting seemed to give relief.

Case XIX.—H. F., New York, æt. 31; clerk. Family history good. Had syphilis eight years ago, for eighteen months before cured. Has had more or less throat trouble for fifteen months, also a cough with expectoration; for two months throat symptoms worse. Came to me August 1, 1878. Examination shows deposit at apex of left lung, with some moist râles. Larynx in third stage of laryngeal phthisis. Epiglottis not involved. His improvement was very marked for a month, and then the lung symptoms becoming more aggravated, his progress was not favorable, and he finally ceased attendance.

Case XX.—Mary Moran, New York, æt. 22; single; teacher. Mother died of consumption. Came to me August 16, 1878, with history of cough of two years' duration; with loss of flesh; with throat symptoms of five months' duration. Examination showed phthisis, first stage, at left apex, and the larynx in the second stage of laryngeal phthisis, the infiltration being on commissure and left false cord. Her attendance at the clinic was very irregular, and her general condition was extremely unfavorable. She was given little relief.

Case XXI.—James Welch, New York, æt. 23; clerk. Family history good. Came to me August 19, 1878. For five months has had a bad cough; losing flesh; has night-sweats, etc. For one month has suffered very severely with the throat. Deglutition extremely painful and cough almost constant. Lungs: deposit at left apex, with moist râles. Larynx: arytenoids and commissures very greatly swollen, and the mucous membrane somewhat œdematous; the remainder of the lining membrane of the larynx being in a state of mild catarrhal inflammation. Attendance at clinic extremely irregular, for while each visit afforded him great relief, he would remain away two and three

weeks, and the disease progressed, involving the epiglottis and other parts. Not much improved.

Case XXII.—Lizzie Juval, New York, æt. 21; single; saleswoman. Mother and sister died of consumption. Came to me August 16, 1878. More or less hacking cough for two years, though the general health has been good. For two months has been coughing badly; has slight hemorrhage; losing flesh; night-sweats; of late the throat has been giving much annoyance, deglutition being quite painful. Examination shows deposit at left apex, with a few moist râles while the larynx is in the second stage of laryngeal phthisis, the gray infiltration being on the face of the commissure, and extending to left ventricular band. Under treatment for two months the larynx cleared up, and there remains but a slight laryngeal catarrh, which is seen occasionally. Lung symptoms become latent, which I attribute to the local treatment.

Case XXIII.—John Cahill, Ireland, æt. 28; shoecutter. One sister died of consumption. Came to me August 23d. For eight months, he said, he had been coughing, losing flesh, and having night-sweats. For three years has considered his lungs weak; for six months has had more or less throat trouble, which has been very painful for six weeks. Examination of lungs shows cavities in left upper lobe, with deposit in right side. Larynx in the third stage of laryngeal phthisis, the ulcerative process having extended to the epiglottis, which is markedly thickened. The case was a most pitiable one, and the suffering very great. Under treatment about three months, with relief, which was marked at times, but he gradually succumbed to the pulmonary trouble, dying on November 10th.

Case XXIV.—Mrs. James A. Parker, Connecticut, æt. 38; married. Family history good. Came to me Oct. 6, 1878. During the winter of 1877 she had an attack of what her physician called broncho-pneumonia, from which she made but a poor recovery, her cough continuing, with the expectoration of frothy mucus. Six months before I saw her she commenced to suffer greatly with her throat, deglutition being extremely painful. She had been treated by the application of very strong solution of nitrate of silver, and when I first saw her was in a most deplorable state. The first application of the treatment described in the paper gave her the first absolute comfort and freedom from pain she had experienced in months. The progress of the case was very favorable until an attack of acute miliary tuberculosis caused her death early in December.

Case XXV.—Wm. Daly, Ireland, æt. 33; clerk. Two brothers died of phthisis. Came to me October 15, 1878. Has had lung trouble for three years, and serious and painful trouble in the throat for four months. Examination shows cavities at left apex, and deposit, with softening, at right apex. The larynx in third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. The treatment gave temporary relief only; attendance irregular at clinic; died this spring.

Case XXVI.—Annie Forrester, Scotland, æt. 34; married. Family history good. Came to me Oct. 20, 1878. For three months has had cough, with expectoration, losing flesh, and having night-sweats. For three weeks has had painful deglutition, with constant sense of irritation. Examination shows deposit at left apex of lungs, with moist râles, localized. The larynx in the first stage of laryngeal phthisis, with slight grayish infiltration on laryngeal face of commissure. Under treatment the subjective symptoms were entirely relieved and the appearance markedly improved.

Case XXVII.—John Halliday, Ireland, æt. 25; carpenter. Family history good. Came to me December 28. For two years had cough, with free expectoration, and occasional attacks of hæmoptysis; has lost flesh, and has had night-sweats. For two months has had more or less throat trouble, irritable condition, with some pain in swallowing. Examination of lungs shows dulness at left apex, with moist râles. Larynx shows first stage of thickening of commissure and club-shaped condition of arytenoids. Under treatment subjective symptoms improved, and for a month he has been free from any throat trouble. Still under observation.

Case XXVIII.—James Gibney, New York, æt. 35; worker in wire factory. Family history good. Is a wire-temperer, an occupation compelling him to inhale the irritating fumes of the tempering-vat. As the result of this he has for several years had throat trouble. Came to me December 21, 1878, with a history of severe trouble in his throat for three months, with severe cough; for two weeks has had pain in swallowing. Examination of lungs showed dulness at left apex, with broncho-vesicular respiration, but very few moist râles, and the larynx in the third stage of laryngeal phthisis, with the epiglottis involved. Each sitting of treatment gave him much relief, but his general condition failing he was unable to attend the clinic, and all his symptoms growing so much worse, that on March 7th I performed tracheotomy to relieve the pain from which he suffered so much, being unable to eat, drink, or sleep. The operation gave immediate relief to the larynx, and his improvement was most satisfactory for eight days, when he succumbed to an attack of acute tuberculosis, within twenty-four hours of its onset.

Case XXIX.—L. Turner, New York, æt. 33; married. Family history good. Came to me December 17, 1877, with the history of a neglected cold, two years before, developing into chronic lung trouble, and for three months she had suffered from pain and distress, referable to the larynx, with painful deglutition, etc. The lungs were in the third stage of catarrhal phthisis, with cavities at right apex; the larynx in the third stage of laryngeal phthisis, the epiglottis being involved in the ulcerative process. The treatment gave the most flattering relief to the subjective symptoms, and there was a decided improvement in the appearance by laryngoscopic examination; but an attack of acute miliary tuberculosis occurring four months after I first saw her, resulted in death six days after the onset of the attack, but the relief to the laryngeal symptoms remained.

This embraces only a portion of the cases seen, and only those which have presented conditions later than the first stage. All the bad cases are given as far as possible. Many cases have come to the clinic but once or twice, and of course no continuous record of them has been obtained.

The histories embrace 29 cases: in the second stage 8 cases; in the third stage, epiglottis not involved, 11 cases; in the third stage, epiglottis involved, 10 cases. Of the 8 in the second stage, 4 were cured, with a chronic laryngeal catarrh remaining; 4 simply relieved, irregular in attendance; all suffered from chronic pulmonary disease. Of the 10 in the third stage, with epiglottis unaffected: cured, 1; cured, with chronic laryngeal catarrh remaining, 6; relieved (on one of whom tracheotomy was performed), 4. In this group the disease was caused by chronic lung disease in 8; by syphilitic asthenia, 1; by Bright's disease, 1; by anæmia and occupation, 1. Of the 10 suffering from the epiglottic form of the disease,

2 were cured; one with chronic laryngeal catarrh, one with aphonia from cicatrices, and also a considerable trace of small warty growths in the larynx, due to the excessive cell-proliferation characteristic of the disease; on one I performed tracheotomy, with very marked relief; he died, however, on the tenth day from acute miliary tuberculosis; seven were only relieved somewhat of the subjective symptoms. Of the causes of the disease in this group, one was due to malaria and the direct effect of occupation—a tanner; and nine to lung disease.

Grouping the 29 cases: there were cured, 1; cured, with chronic laryngeal catarrh remaining, 11; cured, with aphonia from warts and cicatrices remaining, 1; relieved to a more or less extent, 16.

Of these 13 cases virtually cured of the laryngeal disease, 5 were in the third stage of tuberculosis, with cavities; 2 were in the second stage; 3 in the first stage; 1 had Bright's disease and chronic catarrhal pneumonia; 1 malaria; 1 chronic catarrhal pneumonia.

The points, in closing, that the writer desires to emphasize are:

1st. Laryngeal phthisis may develop from a simple catarrhal inflammation, if there exists an impaired state of health from any cause.

2d. The progressive stages are catarrhal infiltration, catarrhal ulceration, and follicular inflammation, and tubercle plays no part in its primary causation or development.

3d. The disease is far more amenable to treatment than is generally taught, especially if treated in the earlier stage.

4th. Tracheotomy is justifiable as a remedial measure, when local remedies fail to relieve, and before it is demanded by dyspnœa from inflammatory stenosis.

PREVAILING DISEASES AND EPIDEMICS OF THE FIRST QUARTER OF THE YEAR 1879.

By JOHN C. PETERS, M.D.,

CHAIRMAN OF THE COMMITTEE ON EPIDEMICS OF THE PUBLIC HEALTH ASSOCIATION OF NEW YORK, AND OF THE COMMITTEE ON HYGIENE OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

From personal observation, conversation with many of the most prominent physicians, and communications from leading medical men, like Drs. Alonzo Clark, Austin Flint, Fordyce Barker, H. B. Sands, Abraham Jacobi, James R. Leaming, C. S. Wood, and many others, it has become evident that the health of this city has not been nearly as good as in 1877 and 1878; and has approached in mortality those unhealthy years 1875 and 1876.

The exact figures are: 7,576 deaths in the first three months of 1879; 6,664 in the same period in 1878; 6,002 in 1877; 7,633 in 1876; 7,842 in 1875; and 6,552 in 1874.

The principal cause for this variation in the mortality has been the mildness or severity of the winters. We had a mild winter in 1874; very severe winters in 1875 and 1876; mild winters in 1877 and 1878, and a long and rather severe winter, with much snow and ice, this year.

All the statistics have been supplied by Dr. Nagle, of the Bureau of Vital Statistics. The deductions are my own.

All are agreed that scarlet fever has been the only severe prevailing epidemic, although a curious minor plague—that of catarrhal inflammation of the eyes—is now going on.

There were 730 deaths from scarlet fever in the first quarter of 1879; 317 in the same period of 1878; 293 in 1877; 245 in 1876; 186 in 1875; and 330 in 1874.

As 67 per cent. of the cases and deaths from scarlet fever occur in children under 5 years of age, and 24 more per cent., or 91 per cent. in all, happen in those under 10 years of age, it is evident that we must expect an epidemic of scarlet fever every five, seven, or ten years; unless this is prevented by cleanliness, isolation of patients; or, by disinfection, which must rival in care and minuteness the Lister method in surgical diseases.

Next in point of severity and frequency has been pneumonia, which has nearly reached the epidemic proportions that it did in 1875 and 1876, and from the same cause, viz., the length and severity of the winter. The statistics are: 922 deaths in the first quarter of 1879; 833 in the same period of 1878; 753 in 1877; 946 in 1876; 1,071 in 1875; and 763 in 1874.

The allied diseases of pneumonia, viz., *bronchitis*, *consumption*, *rheumatism*, *heart and kidney disease*, have also been on the increase.

There were 434 deaths from bronchitis in the first quarter of 1879; 391 in the same period in 1878; 371 in 1877; 437 in 1876; 396 in 1875; and 349 in 1874.

There were 1,214 deaths from consumption in the first three months of 1879; 1,163 in the same months, viz., January, February, and March, of 1878; 1,054 in 1877; 1,123 in 1876; 1,188 in 1875; and 1,009 in 1874.

Rheumatism, which leads to heart, kidney, and lung disease, has been more prevalent this year than usual, doubtless excited by cold weather, and melting snow and ice. There were 398 deaths from heart disease in January, February, and March, 1879; 294 in the same months in 1878; 244 in 1877; 246 in 1876; 260 in 1875; and 216 in 1874.

Bright's disease, which is caused by exposure to cold and wet quite as much as it is by alcoholism and heart disease, caused 376 deaths in the first quarter of the year 1879; 282 in 1878; 270 in 1877; 327 in 1876; 296 in 1875; and 256 in 1874.

Whooping-cough is tending towards epidemic frequency. The statistics are: 219 deaths in the first quarter of 1879; 63 in the same period in 1878; 92 in 1877; 139 in 1876; 132 in 1875; and 107 in 1874. Whooping-cough, like scarlet fever and measles, prevails among the young, and we have to expect a new epidemic every five, seven, or ten years. Its danger is, of course, increased in cold weather, and absolute disinfection of all the expectoration and vomits is the only means that we have of staying its spread.

Measles, as has often been noticed before, is apt to lessen during the prevalence of scarlet fever. There were only 5 deaths in the first quarter of 1879, against 128 in the same period in 1878; 9 in 1877; 172 in 1876; 18 in 1875; and 94 in 1874.

Small-pox has almost been stamped out by better vaccination and re-vaccination by physicians and the Board of Health. There were no deaths from it in the first quarter of 1879; only 1 in 1878; 5 in 1877; no less than 194 in 1876; as many as 372 in 1875; and only 22 in 1874.

Diphtheria is steadily lessening, and its place is being supplied by a milder form of diphtheritic sore-throat. There were only 224 deaths from it in the first quarter of 1879; against 331 in the same period in 1878; 226, in 1877; no less than 725 in the same three months in 1876; 608, in 1875; and 308, in 1874.

The singular fact here protrudes itself that diphtheria is lessening in the face of an epidemic of scarlet fever, to which it so often allies itself; and in spite of severe weather, which so often precipitates it; and of greater filthiness of our streets, which so frequently aggravates all septic and malignant diseases. But the great nuisance of Hunter's Point has been abated, and also many minor nuisances, both on the east and west sides of the city. As diphtheria is also preeminently a disease of children, it is barely possible that an epidemic has run its course for the present, and may crop up again in severe proportions in the course of a few years, after a greater number of susceptible subjects have been born. But it is very evident that the same defects in sanitary arrangements in houses, which used to cause, or seem to cause, malignant diphtheria, now only excite a milder form of diphtheritic sore-throat, and follicular tonsillitis, which runs its course favorably in four to six days. I have seen diphtheritic sore-throat, repeatedly, in every floor of apartment houses, arising from sanitary defects in the cellar, which apparently would have caused diphtheria a few years ago.

The diseases of the spring, viz., *erysipelas*, *pyæmia*, and *puerperal fever* have also been on the increase. Of these we only have statistics of puerperal diseases, which caused 104 deaths in the first quarter of 1879; 89, in 1878; 103, in 1877; 99, in 1876; 135, in 1875; and 116, in 1874.

Typhoid fever has been slightly on the increase. There were 104 deaths in the first quarter of 1879; 89, in that of 1878; 103, in 1877; 97, in 1876; 135, in 1875; and 116, in 1874.

Malarial diseases have caused 78 deaths in the first quarter of this year, mainly in the Twelfth, Nineteenth, and Twenty-second Wards, all of which are in the extreme upper parts of the city. But I have met with a severe case in Twenty-second Street, between Broadway and Fourth Avenue, in the person of a hypochondriac, who had not been out of the house for fifteen years, nor below the third story of that house; so that severe intermittent fever can evidently be generated in the middle of the city, either from exhalations from drain-pipes, or from the use of ice which has been collected from swampy regions, or from damp cellars, or from foul drinking water, or some other conjectural cause.

The greater quantity of snow and ice, coupled with great neglect in cleaning the street crossings, also caused almost an epidemic of fractures, dislocations, and bodily injuries from falls.

Changes in the weather are undoubtedly the great causes of mortality, viz., the extreme cold of winter, and the intensity of the heat of summer, and especially the rapid changes from one to the other.

Against these the people must protect themselves as best they can, especially against the extremes of cold, by proper diet and clothing.

It is almost impossible to calculate the number of cases of catarrh, pneumonia, pleurisy, rheumatism, croup, apoplexy, consumption, bronchitis, heart-disease, kidney and uterine disease, which might be prevented by proper attention to bed and body clothing, both by night and by day.

For these the health authorities are blameless, and physicians and their clientèle are culpable.

We may safely assume that the number of deaths from bronchitis, pneumonia, catarrh, influenza, croup, diphtheria, consumption, rheumatism, heart and kidney disease will attain its maximum in December, January, February, and March of each year; will decline somewhat in April, May, and June; reach their minimum in July, August, and September; and again increase in October, November, and December.

But it may be safely stated that much malignant sore-throat, pneumonia, consumption, bronchitis, etc., may be produced by the simple inhalation of foul air in badly ventilated rooms and houses which are constantly pervaded by the smells of cooking, or from foul clothes and boots and shoes, or from unclean cellars and kitchens, drain-pipes, and from the aromas from foul streets, gutters, sewers, docks, and foul grounds.

In old times malignant and so-called typhoid-pleurisy, sore-throat, and pneumonia, were thus produced in vast epidemics, and they are not so very uncommon now, even in comparatively good-looking houses.

There is very little doubt, also, that much severe, obstinate, and even fatal, throat and lung disease is caused in delicate and susceptible persons by the very impure gas which is furnished by some of the gas companies.

Of the great class of infectious and contagious diseases, it is impossible to speak too highly of the exertions of the Board of Health, and physicians, and the populace generally, in the eradication of small-pox.

The great fever-nests have also been comparatively broken up, and typhus and typhoid fevers have long been reduced to their minimum, so that New York has often furnished fewer of these diseases than much smaller towns and even villages.

Diphtheria has diminished largely, either from unknown causes, or from a better preventive and curative treatment.

But there is every reason to fear that scarlet fever, measles, whooping-cough, have not been brought as much under the control of sanitary science as the progress of medical art has rendered possible.

Disinfection in these diseases is either not properly understood, or consistently enforced for a sufficient length of time, or else must be considered imperfect.

All these diseases progress most rapidly in badly ventilated houses, which are always infested with the smells of cooking, or from unclean persons or things.

Every excretion from the skin, nose, throat, lungs, stomach, bowels, and kidneys in these disorders, should be disinfected at once; the person, hair, and bed and body clothing, carpets, curtains, floors, walls, etc., must be cared for. And after this the patients, however well they may seem, should not be allowed to join their associates, at home or abroad, in churches, schools, or other places of assembly, until their persons and clothing are rendered absolutely free from infection.

For this physicians and parents are first responsible, but a large amount of proper advice and control is to be expected from the health authorities.

But the greatest amount of care by individuals and physicians will not prevent the spread of these diseases, as long as foul streets, gutters, sewers, etc., are allowed to poison the air.

That these have been shamefully neglected, there is not the slightest doubt, although the difficulty of removal of filth from the city is fully appreciated.

The enormous extent of our country, and the productiveness of much of its soil, seem to render the great bulk of city offal and manures valueless; to say nothing of the extreme offensiveness of garbage and street sweepings.

But it would seem that there are barren spots enough near the city, to render such products welcome if they could be transported with less expense and offence.

There are cities, however, which distribute all their street-sweepings and garbage to near barren lands with the best results; but it seems easier, if more wasteful, to dump them into the rivers, or tow them down to the sea, than to otherwise dispose of them. They can be made most useful and healthful on cultivated lands, but it is doubtful whether their deleterious qualities can ever be overcome if used to fill up low lands upon which dwellings are to be built, or to fill up streets or docks. However much these foul materials may be covered over with clean earth, or ashes, it is very probable, nay, absolutely certain, that such localities will remain forever unhealthy.

It seems not impossible that a good system of disinfection of garbage and street sweepings might be carried out at the dumping places, so that these naturally foul materials might be carried away by rail or boat.

There must be many places on our river, sea, and sound-shores to which such materials might be carried comparatively free of offence.

The pure unadulterated and offensive material is carried to some of the sandy wastes of Long Island, with profit, doubtless, by some wealthy persons; but with very great nuisance, which might easily be abated at a small expense, no greater than that caused by throwing a slight covering of clean soil over each open car. This would absorb sufficient of the fertilizing material to pay for the outlay.

Progress of Medical Science.

Treatment of Pertussis.—In the treatment of this disease Birch-Hirschfeld speaks highly of inhalations of weak solutions of carbolic acid, combined with constant residence in a room whose air is kept loaded with carbolic-acid fumes by means of frequent sprinkling with a twenty per cent. solution of the acid. The patients should only be allowed to exercise in the open air for about an hour a day, and that only in fine weather. This treatment was first employed in the Blind Asylum in Dresden, where it proved very successful in a severe epidemic of the disease. None of the patients presented any symptoms of carbolic-acid poisoning while under treatment. During the first two or three days of the treatment no diminution in the number or violence of the convulsive attacks was noticeable; but after that an improvement invariably set in, the attacks becoming progressively less severe and less frequent. As a rule, the convulsive stage ceased after one week of the treatment; but in a few cases it dragged on into the second week. A slight bronchial catarrh usually persisted for several weeks. It was a noticeable fact in this epidemic that, when the sprinkling was discontinued on the fourth day, the attacks on all the patients under treatment at once became more frequent and violent, but again diminished in number and severity as soon as the sprinkling was recommenced. Birch-Hirschfeld has since employed this method of treatment in eighteen cases, some of them being in very young children, and in all the results were equally satisfactory. In one instance, in which a child one year of age and another two years of age were simultaneously under treatment, they were allowed to sleep in a room in which no carbolic acid was used; although the convulsive stage began with great violence in both of these cases, it lasted respectively only nine and eleven days.

Another method of treating the disease, which is recommended by Dr. Neubert, of Leipsic, consists in the use of inhalations of a one per cent. solution of salicylate of soda, administered by means of a spray apparatus. He administers the inhalations every hour or two hours, the patient being placed in the horizontal position, and made to draw in deep breaths with widely-opened mouth. Dr. Neubert has only employed the inhalations in two cases occurring in the same family; but his success was so striking that he hastens to lay it before the profession. In both cases various methods of treatment had been tried for ten days; but the attacks were becoming more and more violent. Under the inhalations one of the children recovered very rapidly; in the other child the vomiting ceased immediately, and the attacks fell in five days from forty-eight to ten per diem, and disappeared entirely in four een days. *Med.-Chir. Rundschau*, January, 1879, and *Jahrbuch. für Kinderheilkunde*, October, 1878.

On Talalgia and its Treatment.—M. Bucquoy states that he has employed the salicylate of soda successfully in the treatment of that very obstinate affection characterized by pain in the calcaneum, which is not unfrequently met with in gouty and rheumatic subjects. The affection is not attended by swelling or change in the color of the skin; but the pain produced by pressure on the central part of the heel is sometimes exceedingly intense. He begins with one drachm of the salt per diem, increasing the quantity if necessary to two drachms, and even more. In large doses he states that it sometimes has a hypnotic action analogous to that of chloral.

M. Panas draws attention to the fact that the pain of talalgia is seated in the very centre of the heel, at a distance from the bursa mucosa of the tendo Achilles, and that it does not correspond to any important nervous twig. The pain is deep-seated, circumscribed, does not radiate into the lateral or posterior surfaces of the calcaneum, and seems to be located in the bone itself; it is sometimes, however, referred also to the articulations of the os calcis. M. Panas first met with the affection in a gonorrhœal subject. The rheumatic diathesis is the primary cause of the affection; as an exciting cause, he mentions the frequent pressure of the heel in the ground on walking.

M. Desprès regards talagia as a malady peculiar to walkers; he calls it the "policeman's disease." Sometimes the patient is compelled to walk entirely on the front part of the foot, and a sort of tabes equinus is the result. M. Desprès treats the affection with punctiform cauterizations, morphine, arsenic, bromide of potassium, etc.; he also prescribes shoes so made as to disseminate the points of pressure. For the rhumatic element he has also administered the salicylate of soda in doses of about one drachm and a half per diem, but frequently without success.—*Lyon Médical*. No. 5, 1879.

Hæmatinic Properties of Dialyzed Iron.—In the present state of the discussion as to the value of dialyzed iron, the experiments of Dr. Amory, the results of which are given below, will be of interest, as tending to define more clearly some of the effects of this drug. In five cases which presented very marked symptoms of anæmia, a careful estimate was made of the globular richness of the blood, and this observation was repeated at various times during the administration of the chalybeate under consideration. The results were uniformly an increase of the red globules, accompanied by a corresponding diminution of the subjective symptoms. In several instances, when the administration of the iron had been discontinued, or

had been irregular, a retrogression was observed by the hæmacytometer and reported by the patient. Dr. Amory does not claim that these observations are sufficient to settle the question, but he thinks they are encouraging, and he prefers this to the more astringent salts of iron. The solutions of dialyzed iron are not uniform; some are useless. That used in these experiments had a specific gravity of 1042, and had no free acid.—*The Boston Medical and Surgical Journal*, April 3, 1879.

Syme's Amputation for Club-Foot in the Adult.—Dr. Stephen Smith reports a case of double Syme's amputation in the adult for club-foot, which was attended by excellent results. At the time of the first operation an attempt was made to save the left foot by excision of the cuboid bone, but was unsuccessful, the patient afterward asking for amputation. In presenting this case to the class Dr. Smith took occasion to urge the superiority of this operation over Chopart's or Pirogoff's, or amputation of the leg, as being a safer operation, and giving a more serviceable stump. —*The Hospital Gazette.*

One Hundred and Fifty Operations for Extraction of Cataract.—Charles Higgins, F.R.C.S., presented to the Royal Medical and Chirurgical Society a report of 150 operations for extraction of cataract, of which 76.6 per cent. were successful, 16 per cent. partially successful, and 7.3 per cent. failures. One hundred and four cases were operated on by small flap, 25 by linear section, 21 by oblique corneal section. Iridectomy at the time of extraction, or as a preliminary operation, was strongly recommended. Mr. Macnamara said that he did not place much reliance on iridectomy, but advised the removal of the *entire* lens, if possible, without rupturing the capsule. In the prognosis he trusted much to the state of the pupil and its power of dilating under atropine. He had seen very perfect results from the old flap operation. Mr. Spencer Watson called attention to the method of operating by lacerating the capsule before the corneal section as offering less difficulty; also, the lens was less liable to be displaced into the vitreous humor. Iridectomy was generally advisable; he preferred the operation upward. Mr. Higgins agreed with Mr. Macnamara that the whole lens should be removed; but this was more easily done after iridectomy, which should be as small as possible. There is difficulty in removing the lens entirely in the early stage by the flap operation. He dislikes to introduce instruments beyond the anterior chamber. In most of his cases the upward section had been made.—*The British Med. Jour.*, March 15, 1879.

Blood Cell Counting.—Drs. Henry and Naucrede have furnished an interesting report of their experience in employing Hayem and Nachet's hématimètre, and Gowers's hæmacytometer. The principle of both these instruments consists in diluting a known quantity of blood with a known quantity of fluid and then counting the number of blood-corpuscles contained in a cell of a certain depth and superficies. Gowers's instrument was described by him as follows: "The hæmacytometer consists of (1) a small pipette which will hold exactly 995 cubic millimetres; (2) a capillary tube which contains exactly 5 cubic millimetres; (3) a small glass jar in which the dilution is made; (4) a glass stirrer for mixing the blood and solution; (5) a brass stage-plate carrying a glass slip, on which is a cell one-fifth millimetre deep, the bottom of which is divided into one-tenth millimetre squares. Upon the top of the cell rests the cover glass. The procedure is very simple. 995 cubic millimetres of the solution are placed in the mixing-jar; 5 cubic millimetres of blood are drawn into the capillary tube from a puncture in the finger, and then blown into the solution. The two fluids are then mixed by the stirrer, a small drop placed in the centre of the cell, and covered by the covering glass. In a few minutes the corpuscles sink to the bottom of the cell, the number in ten squares is counted, and this multiplied by ten thousand gives the number in a cubic millimetre of blood. The average of healthy blood is 5,000,000 per cubic millimetre, or 100 in .00002 cubic millimetre or two squares (hæmic unit)." In experimenting with two of these instruments, Drs. Henry and Naucrede soon found that they behaved very differently, although the care taken to prevent error in manipulation was so great that it was impossible to attribute it to that source. Upon measurement, it was found that the cells were inaccurate, one being $\frac{1}{150}$ inch deep, the other about $\frac{1}{175}$ inch. The two cells were to each other as 5 to 7, and the difference in the count should therefore have been 40 per cent. In reality, there was only 15 per cent. difference, and the authors suggest as an explanation of this discrepancy that, *up to a certain point*, the depth of the cell has a direct influence upon the result; beyond this point the depth of the cell is of minor consideration.

In order to make the conditions of each count identical, the authors finally used a *ground* glass cover, which was marked so that the same side was always applied to the fluid. It is important to use the same cover-glass in the same position, because these glasses possess flaws and curves, and the discrepancies resulting therefrom may be very great.

The great source of inaccuracy, however, is in the measurement of the blood and diluting fluid. By counting a great number of squares, any inequality in the distribution of the corpuscles may be compensated for to a great extent, but in two successive measurements and counts of the same blood, an extreme variation of 790,000 per c. mm. was found. No one measurement of blood can be relied upon as trustworthy, but at least two should be made, and more if possible. Drs. Henry and Naucrede (both in perfect health) found 5,566,272.5 as the average number of red corpuscles in 21 counts for one, and 5,939,862.5 as the average of 26 counts for the other, the difference seeming to depend upon weight and size. It was also found by a series of experiments, that too much stress has been laid upon the manner of puncturing the finger so as to cause the flow of blood.

The authors can perceive no advantage in Gowers's instrument over that of Hayem and Nachet, beyond the facility it afforded for reckoning percentages, and this is more than counterbalanced by the greater ease with which counts are made in the smaller squares of Hayem and Nachet.—*The Boston Med. and Surg. Journal*, April 10, 1879.

A New Medical Journal.—*The Medical Herald* is the name of a new monthly forty-eight paged double-columned octavo journal lying upon our table.

It is published in Louisville, Ky., and edited by Dr. Dudley S. Reynolds, Professor of Ophthalmology and Otology in the Hospital College of Medicine, Medical Department of Central University. The journal is simply an enterprise of its editor, who aims to make it satisfactory to himself and interesting to his readers.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 24, 1879.

MALPRACTICE.

THE malpractice suit against the Manhattan Eye and Ear Hospital, of which we gave an account in our last number, has not only terminated favorably for the hospital, but it has also been the means of securing for the medical profession a decision which will protect it much more than it ever has been protected from unjust assaults. The counsel for the hospital, Mr. Wm. Allen Butler, made an elaborate argument for dismissal of the complaint.

This argument was based upon a decision given by the Supreme Court of the State of Massachusetts, which, in effect, decided that if a hospital had exercised due diligence in securing skilful and careful medical men for the treatment of its patients, it was not liable for any malpractice of which those medical officers might be guilty. Judge Lawrence reaffirmed this decision with regard to the State of New York. For the first time, therefore, in our history, hospitals are protected from suits of this kind, for it is not to be conceived that any respectable hospital will not exercise due diligence in securing careful medical officers. At any rate, in any such future suit, the only proof necessary will be that such was the case. In this particular instance the judge went further, and stated that there was no evidence to sustain the allegation of the plaintiff, but, on the contrary, there was overwhelming evidence as to the carefulness and skill of the surgeons. As we said last week, the profession is to be congratulated that there was no difference of opinion among its own members, the plaintiff being unable to produce a single medical witness to controvert the testimony of the medical staff of the hospital and other physicians who testified. Inasmuch as this decision involves very important points, and is of great interest to the profession, we have given it this extended reference:

The Manhattan Eye and Ear Hospital has been at the expense of securing this decision by engaging the services of one of the most distinguished members of the New York bar to defend their cause. It seems to us that the other hospitals of the city might well consider the propriety of paying the expense of litigation, the termination of which has protected them from similar accusations. We should be glad to hear from the directors of the hospitals of this city upon this point, for the institution in question is poor and utterly without means to defray the expense of a trial that has been hanging over it for two years.

AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

THE American Association for the Cure of Inebriates held its last meeting in this city, May 13th and 14th. The attendance was not large, but the Association is composed of men who are thoroughly interested in the work, and who feel gratified with the progress which has been made in the diffusion of right ideas in regard to inebriety. The Association is based upon the view that inebriety is a disease as distinguished from the habit of excessive drinking, which is a vice, and that it is distinguished mainly by two features, periodicity and transmissibility. By periodicity is meant the tendency for the attack to occur at intervals, either regularly or irregularly; and by transmissibility is meant the tendency for the disease to be transmitted from parents to children. The Association holds to the doctrine, which it believes is confirmed by practical experience, that confirmed inebriates cannot, as a rule, cure themselves; that they must be kept out of the temptation to drink for a limited period, varying from a number of weeks to a number of months, or even several years. They hold that it is not practicable to put patients belonging to that class upon their honor, for the power of the disease is greater than the desire to keep a promise. There have been practical difficulties, both legal and professional, in the carrying out of the plans of the Association, just as there are practical difficulties in all new enterprises. The Binghamton Asylum, for various reasons, which need not be detailed, has not been a great success. These failures, however, are no discredit to the principle upon which the Association is founded, and which is believed to be sound in science, justified by results, and promises to be the universally accepted doctrine of the next century. The recent criticisms of Bucknille upon inebriate asylums in this country were partial and imperfect. Some of his statements are true, but they are not *all* the truth. They tell but one side of a complex subject. Some of the best and most successful institutions, like those in Chicago and Fort Hamilton, he did not visit. The results of experiments on the part of the Association during the last nine years seem to make clear the fact, that where proper State laws exist upon the subject, and in an asylum which is properly conducted, about one-third of the cases can be permanently cured. If this result shall be confirmed by the future, the showing, cer-

tainly, will be a most encouraging one. For in the treatment of insanity no such results are claimed; and of nervous diseases generally, take them as they come, functional and organic, under the best treatment of modern times, it is doubtful whether one-third are permanently cured. Statistics upon the subject, as upon all subjects, are liable to mislead the unwary. It is difficult to follow out the histories of those who leave asylums. But in some institutions especial pains are taken to keep upon the track of those who have been inmates, and information thus obtained is of scientific value.

It is to be hoped that the Association will continue its work until the true foundation of inebriety is touched and laid bare, so that not only the medical profession, but the entire people may be able to see it as it is and act wisely for its removal.

MEDICAL CERTIFICATES.

We have received a copy of *The Atlantic Review*, a very enterprising local paper published at Atlantic City, N. J., and devoted largely to advertising the unexampled advantages of that seaside resort. The present number is put forward as a climax of editorial enterprise in that it contains certificates from about three hundred Philadelphia physicians to the remarkable value of the place. The names, titles, and addresses of the doctors are given with great fulness, and the testimonials are written with a generous breadth of endorsement that reminds us of the grateful epistolary tributes to Hostetter's Bitters and Helmboldt's Buchu. One gentleman praises the air, another the sea, a third the accessibility of the place, and a fourth the baths. The remarkable effect of the resort upon children, especially in their second year, impresses itself upon a fifth, and all carefully add title and address to the testimonial. "Brain-wearied men and delicate females," "those suffering from chronic disease," "from loss of tone in the digestive system," from phthisis and bronchial complaints, from general debility, and those in convalescence, are all rapidly and surprisingly invigorated at this unassuming retreat. We are assured that the place has advantages much superior to those of the torpid and enervating climate of Florida. In fact, here at last is a place where the seeds of disease die out and the fires of youth are kindled again.

It is more or less pleasing, in this connection, to notice that this widely advertised three hundred—and the edition of the *Review* is an especially large one—does not include the Regulars alone. The Secretaries of two Homœopathic Societies join with the Professors in the Philadelphia colleges in hearty endorsement of the baths and boarding-houses, the atmosphere, the soil and the something, they don't know what, which destines Atlantic City to create an era in sanitary therapeutics. Bolus and globule act equally well here; regular and homœopath are emblazoned side by side in the enterprising columns of *The Review*.

Exactly why it was on or about April, 1879, that the piercing intellect of Philadelphia's three hundred medical men was thus moved to a simultaneous approval of Atlantic City, history will probably never know; but though the reasons for the date are obscure, the primary cause of the event has been told us. We quote: "The marvellous effect of the climate of Atlantic City upon their patients has induced these physicians for the sake of mankind to publish voluntarily over their own signatures [also their titles, addresses, and everything else but the office-hours] the proof of our city as a health resort. . . . . It is the grandest thing that has ever been published in the history of the place. . . . . We are glad to say that proprietors of boarding-houses are subscribing generously to this issue, and that others have promised to join in the good work." Now we suspected this on first glancing at the testimonials—and the office addresses. The love of mankind was at the bottom of all, a passionate yearning for the bettering of the race not to be controlled by the hackneyed and unsympathetic restrictions of the national code of medical ethics. This same sentiment is ever cropping out among our "eminent" men. We have had it in New York, and Appollinaris Water was the boon too great to go unendorsed. And so the Philadelphia doctors, unable to control the impulses of benevolence, have furnished the certificates to Philadelphia's Coney Island; "the sad, sweet music of humanity" rises in more cheerful strains, and "the grandest thing" in the history of Atlantic City has been accomplished. We trust it may be a pleasant memory to the three hundred, if patients fail and fees grow small, or when age comes on and the silent tomb is near, to feel that they have assisted in proclaiming to humanity, over their own signatures and addresses in full, the unspeakable advantages of Atlantic City, and in thus having created an epoch of no inconsiderable grandeur in municipal and boarding-house history.

More seriously, however, it seems as though this matter of endorsing medicines and health-resorts should be definitely attended to. There can be no doubt that it violates the code and is opposed to the general sentiment of the profession. The custom has been stopped here and in Chicago, but it is constantly developing itself again. Either it should be summarily put an end to, if possible, or consent to do it generally should be given, and to the latter alternative we do not believe the profession will agree. Once have it understood that a medical recommendation is a legitimate thing for a public journal, and no disciplining body can draw the line between proper endorsements and the most flagrant advertisements. There are too many of these Philadelphia gentlemen to make it possible to call them to account. It is not unlikely that some of the names are inserted unwarrantably;

and indeed they have placed themselves in a light that is quite as ridiculous as it is unprofessional. Nevertheless, such performances should not go unnoticed, and it will be extremely discreditable if they are repeated.

PREVENTION OF EPIDEMICS.

To guard against invasion by epidemic diseases is one of the duties of the present hour. Last year a large portion of our country was invaded by a pestilence which produced ravages more terrible, if possible, than those of war, and the medical profession has been stirred, since those eventful days, to renewed activity concerning quarantine regulations and general sanitation. We have had reason to be proud of the efficient quarantine that guards the entrance to this port, and have no cause for believing that in the future its vigilance will in the least be abated. There is one point, however, which seems worthy of mention, and that is the fact, lately brought to light, that if by any means an infected vessel once reaches the dock, there is no legal power by which it can be removed. A bill has been introduced into the State Senate, now in session, intended to remove this loophole of escape; and if it be true that there is no statutory provision to meet the exigencies of such an invasion, whether wilful or through apparently unavoidable circumstances, we hope our law-makers will lose no time in seeing that such a statute is provided—and provided in such shape that, if occasion arises, it can be executed without a moment's delay. It is a question that touches the vital interests of this port, of this State, and of adjoining States, and we trust the deficiency in the law will at once be remedied.

M'DOWELL, THE FATHER OF OVARIOTOMY.

At the Annual Meeting of the American Medical Association, held in the city of Detroit, Michigan, in 1874, Dr. J. M. Keller, of Kentucky, offered a resolution endorsing the action of the Boyle County Medical Society (Kentucky), and the Kentucky State Medical Society, toward the erection of a monument to Dr. Ephraim McDowell, of Danville, Ky., who was the father of ovariotomy, and performed his first operation in his own town in the year 1809. The resolution was unanimously adopted. At the Annual Meeting held in the city of Louisville, Ky., in 1875, the Special Committee, of which Dr. J. Marion Sims, of New York, was Chairman, and Drs. Washington L. Atlee, of Pennsylvania, W. T. Byford, of Illinois, and J. M. Keller, of Kentucky, were members, reported, among others, the following resolution: "*Whereas*, it is universally acknowledged that the late Ephraim McDowell, of Kentucky, was the originator of the operation of ovariotomy." Then followed resolutions devising plans for the establishment of the McDowell Memorial Fund, and remarks by Dr. S. D. Gross, of Philadelphia, regarding the justice of the claims of Dr. McDowell to the origination of the operation, all of which was endorsed and adopted by the Association.

This is a brief history of the nucleus around which have since gathered the donations from the medical profession of this country, more especially of the commonwealth of Kentucky, and to-day we are able to chronicle the accomplishment of the work, and the erection of a suitable monument which confers "honor upon whom honor is due." The name of Ephraim McDowell, who was born in Rockbridge County, Va., November 11, 1771, performed the first ovariotomy in 1809, and died in the year 1830, will receive the homage due to a man who introduced one of the greatest surgical operations the world has ever seen, and one which has and will ever continue to bring unmeasured benefits and blessings upon woman. In the movement now represented by a plain shaft of granite, the medical societies of the State of Kentucky, the American Medical Association, and the members of the medical profession throughout the country, have done themselves lasting credit.

He did not live to be old; but the great question is, not how many years a man has lived, but how he has employed them. For an account of the proceedings upon the occasion, we refer our readers to the excellent report from our special correspondent.

Reports of Societies.

AMERICAN MEDICAL ASSOCIATION.

THIRTIETH ANNUAL MEETING,

Held in the City of Atlanta, Ga., May 6, 7, 8, *and* 9, 1879.

REPORT OF SECTIONS.

SECTION ON PRACTICAL MEDICINE, MATERIA MEDICA, AND PHYSIOLOGY.

DR. THOMAS F. ROCHESTER, of Buffalo, N. Y., Chairman.

DR. W. C. GLASGOW, of St. Louis, Mo., Secretary.

TUESDAY, MAY 6TH—FIRST DAY.

THE Section was called to order at 3 P.M. by the Chairman.

The first paper read was by DR. N. S. DAVIS, of Chicago, Ill., and entitled

CLINICAL AND METEOROLOGICAL RECORDS.

The object of the work of obtaining clinical and meteorological records was to obtain the actual etiology of acute diseases. Dr. Davis has been an active worker in this department, and his present report was a continuation of that already made to the same Section at the annual meeting held in Chicago in 1877 (see MED. RECORD, vol. xii., p. 378). Beneficial results were still being obtained, and the field of observation was widening.

The paper was referred to the Committee on Publication.

EXPERIENCE OF CONSUMPTIVES IN COLORADO, AND SOME OF THE AËRO-HYGIENICS OF ELEVATION ABOVE THE SEA, WITH CONCLUSIONS,

was the title of a paper written by DR. CHARLES DENISON, of Denver, Colorado, and presented by Dr. John P. Logan, Chairman of the Committee of Arrangements.

Some difficulty being experienced in reading the paper, the reading, on motion, was discontinued, and the further consideration of the subject was postponed until 3 P.M. on Wednesday.

The Section then adjourned to meet on Wednesday May 7th, at 3 P.M.

WEDNESDAY, MAY 7TH—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

The first order of business was a continuation of the paper on "Aëro-hygienics of Elevation above the Sea," by Dr. Denison, of Colorado.

DR. DENISON asked that the Section recommend the Signal Service Bureau to prepare charts to be published with his paper, and on motion his request was granted.

The motion to refer the paper to the Committee on Publication gave rise to discussion, but the paper was finally so referred.

ON THE USE OF WATER IN THE TREATMENT OF DISEASES OF THE SKIN,

was the title of a paper read by DR. L. D. BULKLEY, of New York. It contained the results of the large experience of the author in the use of water in the form of spray, baths, affusions, etc., etc., more especially in the treatment of chronic diseases of the skin. It was discussed by DRS. F. P. PORCHER, of Charleston, S. C., and J. V. SHOEMAKER, of Philadelphia, Pa., and referred to the Committee on Publication.

ADDRESS BY THE CHAIRMAN.

The Chairman's address before the Association in general session was presented by the Secretary.

DR. T. B. LESTER, of Kansas City, Mo., was called to the chair.

DR. T. S. HOPKINS, of Augusta, Ga., moved that the address by the Chairman be referred to the Committee on Publication. The motion gave rise to discussion, which was participated in by DR. LYON, of New Orleans, who made special reference to the portion recommending the establishment of a national quarantine as a preventive of yellow fever. He said that the treatment of yellow fever was as well understood as was the treatment of any other serious disease; that yellow fever did originate in New Orleans, and that there was never a year that there was not yellow fever in that city that originated there. Dr. Lyon contended that quarantine laws did no good, and as proof he said, that during the late war, when there was not and could not be any communication between New Orleans and the West Indies, there was not a single year but there were cases of yellow fever in New Orleans.

He contended that the disease was not contagious, and that it would in future, as it had done in the past, continue to originate in that city. He believed in local sanitary measures instead of the quarantine.

DR. HOPKINS, of Georgia, agreed with Dr. Lyon that yellow fever was of local origin, and that quarantine regulations were useless in preventing the disease.

DR. BROWN, of Texas, asked Dr. Lyon if quarantine did not keep the fever out of Texas.

DR. LYON replied that it did not, and asked the gentleman why it did not keep it out of Jackson, Mississippi, which was surrounded by men armed with shotguns.

The question was not answered.

DR. A. W. DE ROALDES, of New Orleans, said that in a large majority of years yellow fever originated in New Orleans. He believed that proper sanitary measures would prevent epidemics in that city. He did not favor a national quarantine law.

DR. ROCHESTER said he had not treated a case of yellow fever in twenty-eight years. He did not doubt that there were occasional cases occurring sporadic in New Orleans, but he believed that the quarantine would prevent the terrible epidemics.

DR. FOREMAN, of the U. S. A., said that while the fever might originate in New Orleans, there were cities where it did not originate, and we needed the quarantine against the places in which the fever originated.

The motion to refer the address to the Committee on Publication was carried.

The Section then adjourned to meet on Thursday, May 8th, at 3 P.M.

THURSDAY, MAY 8TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman.

The first paper was read by DR. G. F. COOPER, of Georgia, and entitled

VERATRUM VIRIDE AND ITS USES.

It was an elaborate résumé of what was known concerning that drug and its uses. On motion it was referred to a sub-committee to be appointed by the Chairman.

DR. W. C. GLASGOW, of Missouri, followed with a paper on

PLASTIC BRONCHITIS.

A review was made of the literature of this subject, and several cases were reported which had fallen under his care and observation.

On motion, the paper was referred to a special committee to be appointed by the Chairman.

INFLAMMATION OF THE HAIR-FOLLICLES OF THE BEARD,

was the title of a paper read by DR. J. V. SHOEMAKER, of Philadelphia, Pa. The peculiar features of the affection were dwelt upon, and certain points in relation to differential diagnosis were fully considered.

The paper, on motion, was referred to a special committee to be appointed by the Chairman.

There being no further business before the Section, it adjourned.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

DR. E. S. LEWIS, of New Orleans, La., Chairman.
DR. ROBERT BATTEY, of Rome, Ga., Secretary.

TUESDAY, MAY 6TH—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman.

TUBO-OVARIAN GESTATION (CASE) OPERATION AT THE FIFTH MONTH—DEATH,

was the title of the first paper, and read by DR. ROBERT BATTEY, of Ga. The paper consisted of a detailed account of the clinical history, the diagnosis, the operation, and the autopsy. At the request of the

author, it was withdrawn from the Section, with permission to publish in some medical journal.

Dr. Battey employed the écraseur to open the sac, and believed it to be the best instrument that could be employed, not excepting the galvano-cautery. He believed that the treatment of extra uterine gestation could not be governed by any fixed rules.

ELECTROLYSIS OF FIBROIDS

was the title of a paper presented by Dr. E. Cutter, of Massachusetts, and read by Dr. Dunster, of Michigan. It was merely an appendix to a paper read before the same Section at its meeting in Buffalo, 1878, and published in the *Am. Journal of Med. Sciences* in the same year. [See Medical Record, vol. xiii., p. 493.] It was referred to the Committee on Publication.

LACERATION OF THE PERINEUM—TREATMENT BY KEEPING THE BOWELS OPEN, INSTEAD OF CONFINED, AFTER THE OPERATION.

The regular business before the Section having been transacted, the Chairman called upon Dr. E. S. Dunster, of Ann Arbor, Michigan, to suggest some subject as a topic for discussion. Dr. Dunster responded by announcing the above, and remarked that Dr. Thompson, of Washington, had drawn attention to that plan of management by a report of favorable results obtained in fifty-four cases—in no one instance had there been failure to get good union. About two years ago Dr. Dunster had occasion to operate on a case of complete rupture of the perineum, and, as a part of the preparatory treatment, ordered a laxative. The patient, by some mistake, took an overdose, and the consequence was that during the operation there were fluid discharges flowing from the rectum. After adjusting the sutures and bringing the cut surfaces into apposition, he noticed the *absolute absence of any strain upon the line of the wound* when a fæcal evacuation occurred. The case did well.

He operated upon the next case according to the old plan, and the wound, notwithstanding the care of a skilled nurse, tore open when the first movement of the bowels took place. Dr. Dunster then related two cases in which the bowels remained loose during the after-treatment, and in which complete success was obtained. In one there was a large rectocele, and the patient had from one to three fluid movements, daily, from the bowels. The stitches were removed on the ninth and tenth days, and although the pain and nervous excitement were quite irritating, the union was perfect and the success was good.

He had become convinced that, upon the whole, of course there were exceptions, it was a wiser and a safer method than the plan of constipating the bowels.

Dr. M. A. Pallen, of New York, remarked that the plan of securing looseness of the bowels after operation for rupture of the perineum, was the one which he had adopted for many years. He had recommended the plan in a paper published in 1874, and renewed the recommendation in a paper published in 1875.

Dr. King, of Pittsburg, suggested that tincture of opium could be combined with a saline cathartic, and in that manner both soluble bowels and relief from pain and nervous excitement could be obtained.

Dr. Albert H. Smith, of Philadelphia, remarked that, upon theoretical grounds there was great force in Dr. Dunster's remarks. His experience, however, did not confirm the claimed value of the method, although he wished that it might.

Dr. Dowell, of Texas, believed that all the difficulties alluded to might be avoided by administering a full enema just before removing the sutures. Discussion was continued by Drs. Taliaferro, of Georgia, Cole, of California, and Parvin, of Indiana.

Dr. M. A. Pallen, of New York, then presented

A NEW FORM OF PESSARY

for the correction of uterine displacements.

Dr. H. F. Campbell, of Augusta, Ga., exhibited a modified stem pessary.

The Section then became agitated upon the subject of pessaries, and discussion was continued until the lateness of the hour disappointed a number of speakers.

The Section then adjourned to meet on Wednesday, May 7th, at 3 P.M., and the subject of pessaries was made a special order.

Wednesday, May 7th—Second Day.

The Section was called to order at 3 P.M. by the Chairman. The minutes of the previous meeting were read and approved.

NEW INSTRUMENTS.

Dr. H. O. Marcy, of Boston, Mass., exhibited and described Jennison's exploring and indicating sound in its complete form. [See Medical Record, vol. xiii., p. 493.]

Comments were being made upon the instrument, when the Secretary submitted that it was *patented*, and therefore had no right in the Section. The Chairman decided the point of order well taken.

Dr. Marcy also exhibited Dr. Chadwick's gynecological table, and described its convenience and variety of use.

TREATMENT OF UTERINE DISPLACEMENTS BY THE STEM PESSARY

was the title of a paper presented by

Dr. E. Cutter, of Massachusetts, and read by the Chairman. The author recognized the dangers attending the use of an intra-uterine pessary, but believed that there were cases in which the displaced organ could not be held in position by any other form of instrument. The stem pessary employed by him was ordinarily about two and a quarter inches long, sometimes shorter, and was attached to a hard-rubber elbow that was held in place by a band passing around the body of the patient.

The paper was referred to a sub-committee, consisting of Drs. Dunster, of Michigan; A. H. Smith, of Pennsylvania; and Cross, of Arkansas.

NEW INSTRUMENT FOR OPERATION FOR VESICO-VAGINAL FISTULA, WITH CASES.

Dr. E. B. Turnipseed, of South Carolina, read a paper upon the above subject, which drew the thanks of the Section, and was referred to the Committee on Publication.

The instrument, when complete, embraced a new self-retaining speculum, retractors, large apparatus (used in stitching) bearing a smaller comb-shaped apparatus set with needles, which were clamped when the operation was completed; curved needles, gold triple plated with hard-rubber clamps, with springs; trimmers, dilators on the principle of changeable valves, and a hysterotome.

IMPROVED METHOD OF OPERATION FOR LACERATED PERINEUM.

Dr. M. A. Pallen, of New York, illustrated, by means of diagrams, his method of operating for lacerated perineum, which consisted essentially in

transplantation of the flap dissected up so as to lengthen the vagina.

KOLPOKLEISIS IN A CASE OF PROCIDENTIA.

Dr Pallen also described this operation, and illustrated it by means of diagrams.

VAGINO CERVIPLASTY.

Dr Pallen also described and illustrated a plastic operation involving the vagina and the cervix, and as a substitute for amputation of the cervix uteri. The possibility of the operation had been denied by Dr. Emmet, because of the non-existence of elongation of the cervix uteri in the nonparous woman. To the operation Dr. Pallen gave the name vagino-cerviplasty, and recommended it for certain cases of apparent cystitis, painful coition, etc., when the cervix dipped into the vagina one inch anteriorly, and perhaps an inch and a half or an inch and three-fourths posteriorly. He discussed the subject at great length.

The Section then adjourned, to meet on Thursday, May 8th, at 3 P.M.

THURSDAY, MAY 8TH—THIRD DAY.

The Section was called to order at 3 P.M. by the Chairman. The minutes of the previous meeting were read and approved.

Dr. Bartlett, of Wisconsin, was called to the chair, and the Section entered upon the consideration of the

ADDRESS OF THE CHAIRMAN.

Dr. A. H. Smith, of Philadelphia, alluded to

CHANGE OF PRESENTATIONS AND POSITIONS OF FŒTUS

prior to labor. Those changes could in many cases be effected with ease and advantage. His efforts to convert a posterior position of the occiput into an anterior one, and maintain it, had been uniformly abortive. There was something peculiar in those cases which made them very obstinate. He did not bandage the abdomen after turning the child in utero.

LIGATION OF THE CORD.

Dr. Smith thought that the question whether the cord should be ligated early or late after labor was an unimportant one. His practice was to ligate it as soon as pulsation ceased.

PROLAPSE OF THE CORD.

Dr. H. O. Marcy, of Massachusetts, referred to Dr. Garland's method of treating prolapse of the cord by rotating the child in the uterus, thus winding the funis around its body.

Dr. Morris, of Ohio, doubted the propriety and the success of turning in the eighth and ninth months.

Dr. Lewis, Chairman, explained that the manipulation was effected with greater ease and safety than in the earlier months of pregnancy.

The address was referred to the Committee on Publication.

On motion by Dr. Warner, of Boston, Mass., the Section requested Dr. Battey to return his paper on tubo-ovarian pregnancy to its custody, and referred it to the Committee on Publication.

PESSARIES.

The discussion on pessaries was opened to-day by Dr. A. H. Smith, of Philadelphia. He made special reference to the action of the posterior ligaments—the broad, the lateral, and the anterior ligaments of the uterus—and spoke in high terms of the theory underlying the efficient Hodge pessary.

Dr. Pallen, of New York, took issue with Dr. Smith, and claimed that no man had ever found at post-mortem a condition of ligament that would permit displacement of the uterus. There was no such thing as a ligament of the uterus. The term was a misnomer.

The etiology of displacement was *primarily*, derangement of the pelvic circulation; *secondarily*, laceration of the perineum or other conditions which removed sustentative circumferential support; and, *thirdly*, purely mechanical influences acting from either above or below. He denied the possibility of displacement occurring as the result of straining upon an inflamed ligament.

Dr. Pallen continued the discussion at great length, after which the Section adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 1, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

(Continued from No. 20, p. 478.)

POSTURE OF THE PATIENT.

The next point to consider was, what position of the patient was most favorable for the operation of internal traction. As a rule it should be one which would permit the viscera to gravitate toward the upper part of the abdomen, provided such a posture would not interfere with advantageously employing taxis and flexion, adduction, and rotation of the thigh. Practically, however, there was rarely or never any difficulty in combining these various desiderata, although the writer was of the opinion that the value of the aid rendered by getting the thigh in the position just mentioned had been greatly overestimated. Even a slight elevation of the hips (such as placing them upon a pillow, for instance), was all that was necessary in many instances, since this was sufficient to cause withdrawal of the viscera to a considerable extent. The raising of the hips upon the shoulders of an assistant, as in one of the cases before narrated, was recommended by some, while Prof. Gross advised that the patient should be turned over upon the opposite side from the hernia. Mr. Winslow advocated the knee-elbow position while taxis was being made, according to the practice of some gynæcologists in uterine displacements. Finally, it was sometimes desirable to place the whole body on a steep inclined plane with the head downward, as had been done in Number Three and others of Dr. Hamilton's cases. The writer mentioned that this procedure was of old date, and gave a brief sketch of its history. One of the best authorities, Percival Pott, had said that the nearer the patient's position was to that of a man standing on his head, the better. Velpeau, although not attaching any great importance to such a posture, plainly stated that Laurence was in error in holding that no change was thereby caused in the position of the viscera, in consequence of their being so tightly packed in the abdominal cavity, and acknowledged that the procedure did not deserve the oblivion into which it had fallen, or the ridicule which had been bestowed upon it by some. When such were the views of Laurence, it was natural that he should be of the opinion that it was impossible for the measure to be of any service, and Bryant also believed it to be useless, as did Sir Astley Cooper. Dewitt, Erichsen, Gross and Ashurst, on the

contrary, all spoke more or less favorably of it. It was doubtless true that it would fail in a certain proportion of cases, but nevertheless Dr. Hamilton could not but regard it as a fact that this method, in conjunction with judicious taxis, gave better results than any other at present known to science. It had been offered as an objection to it that the inverted posture would be likely to do harm by exciting inflammation; but this held true much more in regard to taxis than it. He had never known it to give rise to pain; while this could not always be said of taxis. In the early stage of strangulation, withdrawal of blood from the part was undoubtedly of service, and it was then that leeching, the application of ice, etc., might prove useful; but if this were the case of all, the more benefit would the inverted position be. There was also this additional advantage about it, that there was no danger whatever of its being followed by gangrene, which had been known to result from the application of ice when maintained for too long a period. There was never, really, any need to keep up the use of ice long, however, since if it did not act promptly there was no hope of its doing any good at all.

After a careful consideration of the subject, and an extensive practical experience in regard to it, Dr. Hamilton's conclusions were as follows:

1. Hernial apertures are not under the control of the muscles.

2. Posture does not relax the apertures when the seat of the hernia is in the sac itself, nor when it is at the internal ring in inguinal hernia.

3. Neither warmth nor cold, nor any other sort of local application, are capable of relaxing these apertures.

4. Neither do chloroform or other anæsthetics affect hernial apertures, except, perhaps, in cases where the hernia is very recent.

5. In short, hernial apertures can seldom be affected at all by any means brought to bear upon them, whether local or general; but this is not requisite for relief, since the strangulation is not the result of contraction of these apertures, but of the pressure of the distended hernia upon them.

A second series of conclusions in regard to the postural method of treatment were as follows:

1. Taxis is of prime importance.

2. Internal traction is only second to this in value. It is to be effected by securing the paralysis of the abdominal muscles and exciting peristalsis in the intestine.

3. Chloroform, hot-baths, and other similar agents are the best means for accomplishing muscular relaxation, peristalsis, and anti-peristalsis.

4. Ice can only relieve the "button-holing" when this is due to congestion, and when it is applied very early. Opium is also of a somewhat limited application.

5. Emetics may be of service by causing an upheaval of the viscera, and also, probably, by exciting peristalsis.

6. Purgatives act by causing peristalsis above, and anti-peristalsis (sometimes) below the seat of stricture.

7. Stimulating enemata and enemata of tobacco also induce peristalsis, and are both direct and indirect in their effects.

8. All positions of the patient are beneficial in which the viscera are drawn upward; and that is likely to be of the most service which causes the most efficient inward traction, at the same time that it does not interfere with the application of taxis.

Prof. Alfred C. Post being called upon to open the discussion, said that the strangulation was due to a want of proportion between the size of the canal and of the protruded parts, and he agreed with the author of the paper in the statement that it was not the result of contraction of the apertures, but rather of the pressure of the distended mass upon the apertures. It was a well-known fact that hernias did not, as a rule, become strangulated when they were recent. There was one variety, however (not to speak of traumatic hernia), in which the strangulation occurred simultaneously with the hernia itself. This was the congenital form, in which the *tunica vaginalis*, owing to a want of adhesion between its sides, remained open above, and so continuous with the abdominal cavity until adult life. Many years ago the first case of this kind which had been recorded in New York came under his care at the New York Hospital. It occurred in a seaman in consequence of his straining himself while working at the capstan, and the condition had lasted for three days when he was brought to the hospital. There was a tumor in the rectum which resembled very closely the ordinary swelled testicle, and there was a good deal of discussion among the surgeons in regard to the diagnosis. Of the six or eight who saw it, no one agreed positively with him (Dr. Post) in the opinion that it was a strangulated congenital hernia.

Dr. Valentine Mott refused to accept the statement of the man that the trouble originated from a strain, and believing that it was really due to a blow from a capstan-bar, pronounced it a case of traumatic swelled testicle. Notwithstanding this opinion, however, Dr. Post performed an exploratory operation, when his diagnosis was confirmed; but the interference was too late, and death soon resulted from peritonitis. He was told that, in speaking of the case afterward, before his class, Dr. Mott stated that he himself had *judged* wrong, and that a certain young surgeon had *guessed* right. Prof. Knight, of New Haven, also told him of a similar case, and he mentioned this variety of strangulation on account of the bearing which it had on the question of operation.

While in recent hernias the apertures were small, in the old ones they had become large; but still at the time of strangulation the protruded part increased in size, out of proportion to even these enlarged apertures. As regards the matter of reduction, he thought that there was no question about the advantage of the pulling process over one of pushing; just as it was much easier to pull a large thread through the eye of a needle when one had once gotten hold of the end of it, than it was to push it through at first. Some years ago a case of ordinary strangulated hernia was brought to the New York Hospital, and Dr. Kearney Rodgers was about to operate before a class of students, when he (Dr. Post) asked that he might first try the effect of inward traction. A stout man was directed to raise the patient's hips upon his back, by carrying his knees across his shoulders, when in a few minutes the hernial tumor entirely disappeared. Since then he had seen many similar instances. He did not wish to throw any discredit upon the method of taxis, however, as this was often of the greatest assistance, in conjunction with the postural treatment.

When the protruded part was distended with gas, acupuncture was often of the highest service; and when there was congestion which prevented the return of the intestine, local depletion was demanded. In this connection he would relate another case that occurred under his notice in the New York Hospital. On the day that the late Dr. Ives was buried, a patient was brought in with strangulated inguinal hernia. As the man was suffering a good deal of pain, and there

appeared to be considerable congestion about the part, he applied some leeches before going out to attend Dr. Ives's funeral, expecting to operate on his return. When he came back in a couple of hours, however, he found that spontaneous reduction had occurred.

On motion of Dr. HOWE, the further discussion of the paper was postponed to a special meeting to be held at the call of the Chair; and after attending to some unfinished business the Academy then adjourned.

Correspondence.

THE MONUMENT TO EPHRAIM McDOWELL.

Its Dedication in Danville, Ky., on May 16th.

ORATION BY SAMUEL D. GROSS, M.D., LL.D., D.C.L., OXON.

The letters read, speeches made, and other incidents of the occasion.

(Special correspondence of THE MEDICAL RECORD.)

THE Kentucky State Medical Society held its annual session in Danville, commencing on May 13th, and continuing through three days. The meeting was one of the largest the Society has ever held, more than two hundred doctors from the State and elsewhere being in attendance.

The chief event of the meeting was the dedication of the monument to Dr. Ephraim McDowell, the Father of Ovariotomy, who performed his first operation in Danville in 1809. The idea of the monument was conceived by the late Dr. John D. Jackson, of Danville; but it was chiefly by the exertions of Dr. Lewis McMurtry, his successor, and Dr. Turner Anderson, that it was carried out. The subscriptions to the funds were made largely by the medical profession of Kentucky.

The monument is a handsome granite obelisk, thirty feet high, bearing the several inscriptions:

"Ephraim McDowell, M.D., born in Rockbridge County, Va., Nov. 11, 1771; came to Kentucky in 1783; attended the University of Edinburgh in 1793 and 1794; located at Danville in 1795; performed his first ovariotomy in Danville in 1809; died in Danville, June 25, 1830."

"To the memory of Ephraim McDowell, who, in inaugurating a great surgical operation, became a great benefactor to his race."

"Erected by the Kentucky State Medical Society, 1879."

"Honor to whom honor is due."

The monument stands in the old graveyard at Danville, to which the remains of McDowell, now resting in a field on his old homestead, near the town, will soon be brought.

Dr. Washington L. Atlee, of Pennsylvania, had accepted the invitation to deliver the oration upon the occasion of unveiling the monument. Upon his death, Dr. McMurtry, the Chairman of the Committee of Arrangements very fittingly invited and secured Dr. Samuel D. Gross, of Philadelphia, to perform that duty.

The dedicatory exercises were held in the Presbyterian Church of Danville, on the evening of May 14th. The edifice, which is a very large one, was completely filled by the members of the Society, and numerous visitors from the community, which is one of great culture, as well as by visitors from abroad, attracted by the fame of the orator and the interest of the occasion.

Besides Dr. Todd and other officers of the Society, there were seated on the stage the Governor of Kentucky, James McCreery; J. Stoddard Johnson, the Secretary of State; Dr. Kimball, of Massachusetts; the ovariotomist, Dr. L. P. Blackburn; Dr. D. W. Yandell, Dr. Lewis A. Sayre, the President of the American Medical Association; Dr. Dunlop, Dr. Edward Richardson, Dr. Lewis McMurtry, Dr. R. O. Cowling, Dr. V. P. Gibney, and others.

Dr. McMurtry introduced Dr. Gross as one needing no introduction from a Kentucky audience, and he was received with great enthusiasm.

The delivery of Dr. Gross's oration occupied one hour and a quarter, and was read with great effect by its venerable author. Though the subject was necessarily technical at times, it was received with marked attention by the mixed audience. It is the opinion of professional judges that the McDowell oration is one of Prof. Gross's most masterly efforts, ranking fully with, or surpassing his memoir upon Robley Dunglison, which had been considered among the best of his many contributions in this field of literature. It must hereafter be looked upon as the official record of McDowell's actions and the history of the operation which he introduced. The Kentucky State Medical Society has provided for the immediate publication of a memorial volume of the dedicatory exercises, in which the address will appear in full.

At the close of Dr. Gross's oration, Dr. Lewis A. Sayre, of New York, made a few remarks, in which he said that not only as a private member of the medical fraternity, but as the President of the American Medical Association, he had come to Danville to represent the profession of the United States upon the occasion when a monument to McDowell was to be dedicated. He would not attempt to add to the words of the great orator of the evening, but would simply hope that McDowell's example, and the monument erected to his memory, would stir others to great deeds for the benefit of humanity.

Succeeding Dr. Sayre, Dr. D. W. Yandell read selected letters from a number which had been sent to Dr. McMurtry and himself, in answer to invitations to be present upon the occasion of the memorial exercises. Among these were letters from T. Spencer Wells, Knowlsby Thornton, T. Gaillard Thomas, T. G. Richardson, Theophilus Parvin, Horatio Storer, Thomas Bryant, and Oliver Wendell Holmes.

Dr. R. O. Cowling, of Louisville, had been appointed by the State Medical Society to present to Dr. Gross a memento of McDowell and of the occasion which had brought him to Kentucky.

The object chosen was the knocker which had hung on the door of the great ovariotomist during his residence in Danville. It is in itself a handsome work of art—an antique bronze of very handsome pattern. It has been preserved in the town during the past fifty years as an object of curiosity, and was happily secured for the State Society by the Committee of Arrangements from its owner, Dr. Dunlop, the newly elected President, to be presented to Dr. Gross in the name of the Society on the present occasion.

DR. R. O. COWLING'S ADDRESS.

DR. COWLING said:

Dr. Gross: The Kentucky State Medical Society thanks you for the beautiful oration you have just delivered upon Ephraim McDowell. Surely hereafter, when history shall recall his deeds, and dwell upon his memory, it shall relate how, when he was fifty years at rest,

the greatest of living surgeons in America came upon a pilgrimage of a thousand miles to pronounce at his shrine the noble words you have spoken.

The Society does not wish that you should return to your home without some memento of the occasion which brought you here, and which shall tell you also of the admiration, the respect, and the affection it ever bears for you.

I have been appointed to deliver to you this simple gift, with the trust and belief that it will always pleasantly recall this time and be a token of our feelings towards you. We wished to give you something directly connected with McDowell, and it occurred to us that this little memento of the dead surgeon would be most appropriate. It is only the knocker which hung upon his door, but it carries much meaning with it.

The sweetest memories of our lives are woven about our domestic emblems. The hearthstone around which we have gathered; the chair in which our loved ones have sat; the cup their lips have kissed; the lute their hands have swept—what jewels can replace their value? Do you remember the enchantment that Douglas Jerrold wove about a hat-peg? How at the christening of the child they gave it great gifts of diamonds, and pearls, and laces, and when the fairy godmother came, and they expected that she would eclipse them all with the magnificence of her dowry—how she gave it simply a hat-peg? They wondered what good could come of that. The boy grew to become a man. In wild pursuits his riches were wasted, and at last he came home and hung his hat upon that peg. And while the goodman's hat was hanging there, peace and plenty, and order and affection sprang up in his home, and the hat-peg was, indeed, the talisman of his life.

I wish that the magician's wand were granted me awhile to weave a fitting legend around this door-knocker, which comes from McDowell to you, Dr. Gross. There is much in the emblem. No one better than you knows how good and how great was the man of which it speaks. It will tell of many summons on mercy's mission which did not sound in vain. Ofttimes has it roused to action one whose deeds have filled the world with fame. A sentinel, it stood at the door-way of a happy and an honorable home, whose master, as he had bravely answered its signals to duty here below, so, when the greater summons came, he as trustfully answered that, and laid down a stainless life.

It belongs by right to you, Dr. Gross. This household genius passes most fittingly from the dearest of Kentucky's dead surgeons to the most beloved of her living sons in medicine. She will ever claim you as her son, Dr. Gross, and will look with jealous eye upon those who would wean you from her dear affection.

And as this emblem, which now is given to you, hangs no longer upon a Kentucky door-way—by this token you shall know that all Kentucky door-ways are open at your approach. By the relief your skill has wrought; by the griefs your great heart has healed; by the sunshine you have thrown across her thresholds; by the honor your fame has brought her; by the fountains of your wisdom, at which your loving children within her borders have drunk—the people of Kentucky shall ever open to you their hearts and homes.

The applause which greeted the remarks of the speaker, and the sympathetic attention with which they were received, showed that he had thoroughly interpreted the feelings of the assemblage.

Dr. Gross appeared much affected during the delivery of the address, and at its conclusion, in a most feeling manner, made his reply.

THE REPLY OF DR. GROSS.

"I am much overcome, gentlemen of the Kentucky State Medical Society, by this mark of your approbation. I am not the great man your speaker has declared me to be; but I gratefully appreciate the feelings which have prompted his words.

I claim to be but an earnest follower of surgery, who, during a period which has now extended beyond half a century, has striven, to the best of his ability, to grasp its truths and to extend the beneficence of its offices. I am not to be placed by the side of McDowell for what I may have done in our art; but if this reward be a measure of the appreciation I hold for the good-will of the people in this commonwealth, I may claim it for that.

The years of my life which I passed in Kentucky represent the most important era in my career. They witnessed many of its struggles, and much of the fruition of its hopes. To the warm hearts of the many friends it was my good fortune to secure within these borders, do I owe it that those struggles were cheered and rewards beyond my deserts were secured.

I take this emblem now offered me as the most valued gift of my life. It shall be received into my home as a household-god, environed by all the memories of goodness and greatness to which your speaker has referred, and, above all, recalling this scene. Dying, I shall bequeath it among my most important possessions to the family I may leave, or, in failure of that, to be preserved in the archives of some society.

I thank you again, gentlemen, and I wish I were able to tell you better how much I do thank you.

At the conclusion of Dr. Gross's remarks, the meeting adjourned amidst great cheering, and the members of the Kentucky State Medical Society crowded around Dr. Gross, and, with many an embrace, testified to the warmth of their individual feelings towards him.

RAPID LITHOTRITY WITH EVACUATION.

MY DEAR VAN BUREN:—I have only just seen your interesting communication on "Rapid Lithotrity with Evacuation," in the N. Y. MEDICAL RECORD of March 22, 1879, and I venture to send you direct a brief remark or two thereupon.

First. I observe that you speak of Dr. Keyes's modification of my lithotrite, by which it will do its work without any clogging whatever, and add that "my (Sir H. T.'s) objection that the original Bigelow's instruments were enormous and unwieldly is therefore not tenable." Let me just say, that my objection to the enormous lithotrites of Bigelow remains, of course, as strong as ever, and I am only too pleased to hear that you have recognized the same evil and have remedied it with lighter instruments. We join, therefore, —and I am sure it could not be otherwise—in shunning large unwieldy lithotrites.

My second remark relates to your adoption of some observations in the *Lancet* regarding what the writer calls "abandonment of my old positions;" a matter, after all, of no very great importance. The observation was an editorial one, and designed to be adverse criticism of myself personally, not of my mode of operating. I felt it, therefore, useless on my part to write a rejoinder. But the whole criticism was founded on the writer's overlooking a single circumstance in connection with the subject, which I do not expect you or any one else to discover, without reference to the context. But I desire you, as one of my oldest friends on your side of the Atlantic, to be rightly informed, even on such a matter as this. In the passage from my lectures, quoted by the critic, as recommending that the aspirator should not be too much employed, I was expressly describing *lithotrity without the use of*

an anæsthetic agent; and at the close of this section you will find the following passage, which, no doubt, he did not observe: "If, however, you find it necessary to execute a large crushing, *and the patient is, as he then ought to be, unconscious,* it is certainly desirable to remove the débris and small fragments, and relieve the patient of the pain and irritation they will produce in passing naturally; and this apparatus is then invaluable for the purpose."*

But I had at that time already commenced to use ether, which was coming again into fashion here, never liking chloroform, and consequently used the aspirator much more freely. And thus I say, in that same edition: "Other means, Clover's apparatus, for example, which is the best of all, may be employed in a good many cases. I use it more than I formerly did, and with advantage."

Lastly, my dear Van Buren, pray forgive my saying that these terms of abandonment of position, change of front and strategical position, etc., adapted as they are to military men, whose sole business is to maintain certain lines they have held forever and must at the peril of their lives maintain, do not accord with the aims of men who "live and learn." Once more let me quote from one of my first lectures a few words which, I think, I need never change, although others may be changed, if I live and work, as I hope to do, some time longer: "You may rely upon it, with regard to any subject whatever, whether politics or religion, or our own proper profession, if we hold the same opinions at forty years of age as we did at twenty—and, perhaps, looking forward, I may say, if we hold the same opinions at sixty as we do at forty, we live to very little purpose. It is an error to look for a life-long 'consistency' in matters of opinion from men who think for themselves, in whatever department their teaching may be. You must expect them to progress, or they will be bad teachers—just as I hope you are progressing now."

By the way, I should like very much to see and try a Keyes' modified lithotrite. I wonder whether he would look me out a good medium specimen, such as he would like me to try. I will gladly be his debtor. Believe me, my dear Van Buren, . . .

HENRY THOMPSON.

P. S.—A new edition of the same lectures is now going through the press, in which these subjects are much more fully treated. I hope to send you the first copy in a week or two.

LONDON, May 1, 1879.

* Clinical Lectures on Diseases of the Urinary Organs. By Sir H. Thompson, etc. Given in 1875-6. Fourth edition. London: Churchill, 1876.

THE DWIGHT INQUEST.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your last week's number, under the heading of "The Dwight Inquest," you refer to the opinion of the undersigned, who were his physicians, and use the following language: "The theory of congestive chill was not very strongly supported by the evidence, and only negatively so by the autopsy. Pernicious ague is often, indeed, a boon to those perplexed by obscure and malignant symptoms, as well as a scapegoat for inefficient observation. It is sometimes equally difficult to swear that it has or has not existed, and perhaps on this account it served a tolerable purpose in the present case."

You will permit us most emphatically to repel the imputation you cast upon us. We have had no occasion to make a "scapegoat" of pernicious ague, nor to resort to any subterfuge whatever in relation to the case of Col. Dwight. He was under our care and treatment for thirty-five days, during which time his disease was observed carefully and anxiously. Malaria, as an essential element in it, was early recognized and the proper treatment resorted to. It consequently could have been no afterthought to attribute his death to the pernicious influence of malarial poison.

Dr. Delafield made no issue with us. He expressed no opinion on his part, nor did he dispute ours. With the carefulness which should characterize all pathological investigations, he simply reported that to *his* mind there was not evidence of malarial disease; and there he courteously and considerately left it.

If, as you say, "the whole affair reflects anything but brilliancy upon the profession and the performers," we beg leave to deny any agency on our part in producing such a result. There was no diversity of opinion with us who had the case of Col. Dwight in charge, nor are we conscious of a single act or opinion in the matter that would derogate from the standing of the profession in general or of our own. We were compelled to defend our diagnosis and treatment before a coroner's jury, composed entirely of medical men, the coroner also being a regular practising physician, and we are quite confident of our ability to sustain it anywhere.

When the time arrives that it is proper so to do, the profession shall have the case with its interesting points through the columns of some medical journal, and we will quietly abide the good sense and sound judgment of our professional peers.

GEO. BURR, M.D.,
J. G. ORTON, M.D.,
DAN. S. BURR, M.D.

BINGHAMTON, May 19, 1879.

[We did not intend to cast imputation upon any one, but, from the facts then and up to this time in our possession, we are of the same opinion still.—ED.]

New Instruments.

A COMBINED GYNÆCOLOGICAL TABLE AND INSTRUMENT CASE.

BY FRANK P. FOSTER, M. D.,

PHYSICIAN FOR DISEASES OF WOMEN TO THE OUT PATIENT DEPARTMENT OF THE NEW YORK HOSPITAL.

FOR the past two or three years I have used with great satisfaction an examining table, the chief features of which may be described as follows: when not in use it forms a closed case three feet long, two feet wide, and about three feet in height—forming rather a handsome article of furniture, not at all suggestive of the purposes for which it is chiefly meant. The greater portion of it serves to hold instruments and other appliances—one-half of this portion being taken up by a series of drawers, and the other half forming a closet.

The upper part of the table consists of a couch folded together somewhat after the manner of a bagatelle table. The central section of this couch extends the whole length of the closed case—three feet. To either end of this portion is hinged a lid one foot wide, making the couch, when opened for use, five feet long, furnished with hair cushions covered with

leather. In this state it is a simple horizontal couch, of convenient height and dimensions for examining patients of either sex in the reclining posture. (See Fig. 3.) The patient's head may rest upon a small separate cushion, which cushion, when the table is not in use, is contained in a third lid, which serves to fill up the space between the two hinged lids above referred to. At the rear of the table is a hinged step, (Fig. 1, A), resting, when in use, on swinging brackets.

For an examination with the patient lying on the back, the central portion of the couch may be raised to any convenient pitch, as shown in Fig. 1. The stirrups, or foot-supports, are simply inserted into sockets in the frame of the couch, so situated that the distance between the feet may be varied according to circumstances. The shape of the stirrups is correctly shown in Fig. 1—incorrectly in Fig. 2.

For an examination in Sims's posture, one end of the cushion upon which the hips rest (the end corresponding to the operator's left hand, as he faces the patient, is raised, so that that portion of the couch slopes towards the right. Partial pronation of the body is thus facilitated, without the unpleasant effects sometimes produced by a table having a lateral pitch throughout its whole length. Moreover, from the hips resting at a higher level than the trunk, a slight lateral bending of the spine is caused, bringing the vagina more nearly parallel with the rays of light which are depended on for illumination—reaching the room, as they generally do, from a point somewhat higher than the table. In an examination of this sort, the stirrup for the right foot projects from the side of the table—the one for the left foot, diagonally from the corner, as shown in Fig. 2.

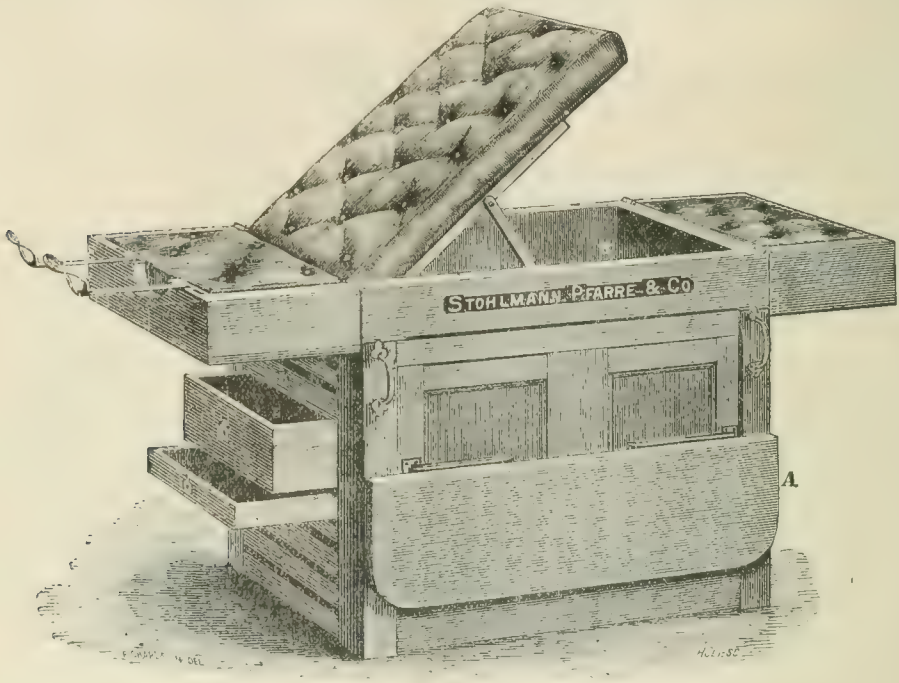


Fig. 1.

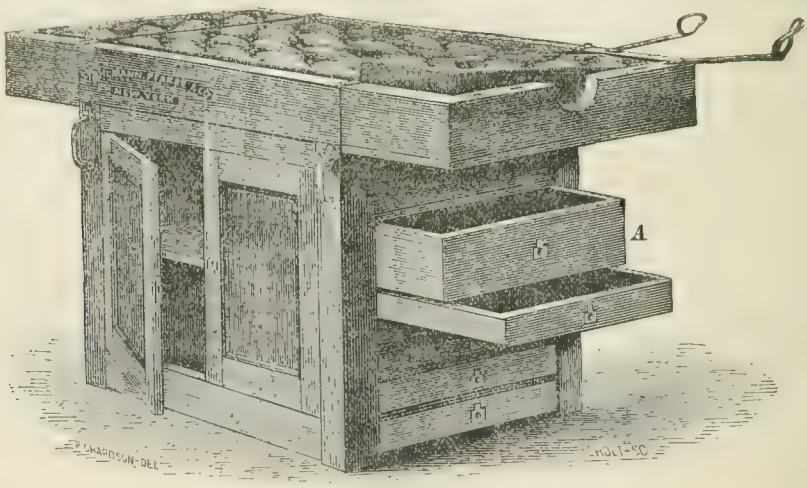


Fig. 2.

For the knee-elbow posture, the patient's knees may rest upon the step, the middle lid, with its cushion, being interposed, as shown in Fig. 3. For the knee-chest posture, the table is arranged in the main as shown in Fig. 1, but the middle lid, with its cushion, is placed at B. The patient's knees rest upon this, and the trunk upon the declivity formed by the central portion of the couch.

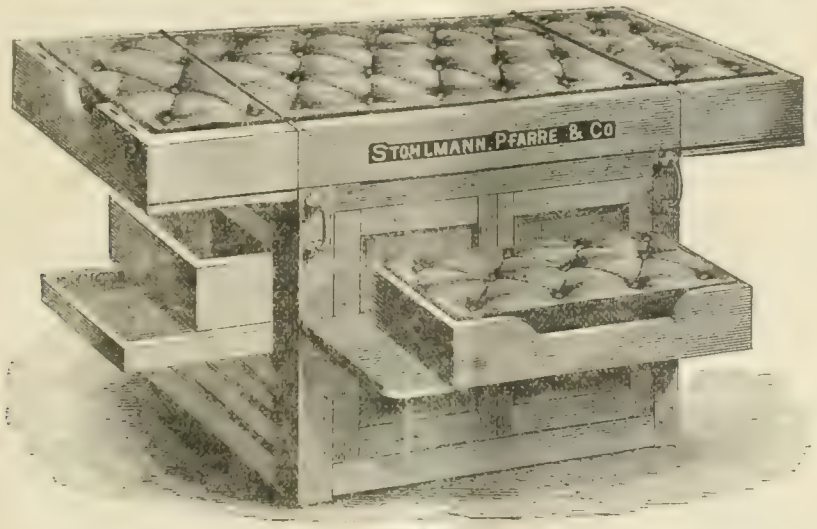


Fig. 3.

The deep drawer (Fig. 2, A) may be conveniently partitioned into compartments for bottles, jars, cotton wads, a vessel of warm water, etc.; the others are for instruments. From the fact that the end of the couch overhangs the body of the table, these drawers may be opened without obliging the operator to retreat from the patient.

This brief description may be supplemented by viewing the table, which is made by Messrs. Stohlmann, Pfarre & Co.

TENACULUM SCISSORS.

By GEORGE E. ABBOTT, M.D.,

NEW YORK.

A few weeks since, while Dr. T. Addis Emmet was removing some sutures from a perineum upon which he had previously operated at this hospital, he spoke of the desirability of an instrument that will cut the sutures more accurately than can be done with the common scissors.

In certain cases the sutures are so deeply imbedded that the surgeon must be guided entirely by the sense of touch in his efforts to cut the wire with the common scissors, and under these circumstances even the most careful operator will at times cut the shaft of the suture, as at × in Fig. 2, instead of the loop at *Z*, and the succeeding search for the little loop is then very annoying. In one case, while in doubt whether he had the loop or the shaft between the blades of the scissors, the doctor took a tenaculum, introduced it into the loop, drew it forward slightly, and then cut the wire.

It occurred to me that the tenaculum and scissors might be combined, and with one or two suggestions from my friends this idea has been carried into effect in the tenaculum scissors represented below. The instrument, which was made by Tiemann & Co. of this city, has been tested by Dr. Emmet, and found to work very successfully.

A A' represents one handle and blade of the scissors; *B*, the other handle jointed to *A* at *D*. *C C'* represents the other blade moving upon *A A'*, and attached to it by means of the *U* clamps *G H*, but detachable from it for purposes of cleaning. *E E E* is a "Y joint" connected to the handles *A* and *B*, and to the blade *C C'* at *F*. By closing the handles *A* and *B* the "Y joint" will throw the blade *C'* forward, cutting upon *A'*.

While operating, the shaft of the suture may be used as a director if necessary. The blade *A'* is engaged in the loop of the suture, which is then cut in the manner described above. Before cutting, however, the

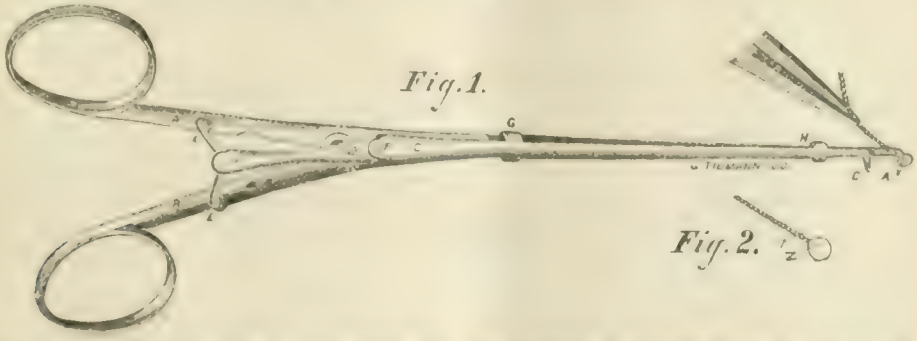


Fig. 1.

Fig. 2.

scissors should be withdrawn slightly, when, if the blade be upon the shaft only, as at × in Fig. 2, it will slip upward and may be withdrawn entirely; but if it is engaged in the loop it cannot be withdrawn, and the suture may be cut correctly, as at *Z* in Fig. 2.

This principle might also be used for scissors to operate in deep or narrow cavities, the blades being bent or curved in any desired direction.

WOMAN'S HOSPITAL, N. Y., April 14, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 11 to May 17, 1879.

MCPARLIN, THOMAS A., Major and Surgeon. Relieved from duty in Department of the East, and assigned to duty as Attending Surgeon in New York City. S. O. 111, A. G. O., May 10, 1879.

PAGE, CHARLES, Major and Surgeon. Relieved from duty in Department of the Platte, and assigned to duty as Post Surgeon in Fort Monroe, Va., and to report by letter to Comdg. General, Dept. of the East. S. O. 114, A. G. O., May 14, 1879.

MOORE, JOHN, Major and Surgeon, when relieved by Surgeon Smith to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

SMITH, J. R., Major and Surgeon, when relieved from duty at Fort Monroe, Va., by Surgeon Page, to report to the Comdg. General, Dept. of Texas, for duty as Medical Director. S. O., 114, C. S., A. G. O.

TOWN, F. L., Major and Surgeon. Having reported in person at these headquarters, pursuant to S. O. 58, C. S., A. G. O., assigned to duty at Fort Walla-Walla, W. T. S. O. 49, Dept. of the Columbia, May 1, 1879.

WOLVERTON, W. D., Major and Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival report by letter to Surgeon General. S. O. 114, C. S., A. G. O.

GIBSON, J. R., Major and Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

CARVALLO, C., Capt. and Asst. Surgeon. Relieved from duty in the Dept. of the Missouri, to proceed to Washington, D. C., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

MOFFATT, P., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and assigned to duty in the Dept. of the Columbia. S. O. 114, C. S., A. G. O.

CLEARY, P. J. A., Capt. and Asst. Surgeon. Relieved from duty in the Dept. of the Missouri, to proceed to New York City, report to the Army Medical Board for examination for promotion, and upon its conclusion report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

MUNN, C. E., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to Boston, Mass., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

DICKSON, J. M., Capt. and Asst. Surgeon. Relieved from duty at Fort Klamath, and assigned to duty at Fort Stevens, Oreg. S. O. 47, Dept. of the Columbia, April 29, 1879.

EWEN, C., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and assigned to duty in Dept. of the Missouri. S. O. 114, C. S., A. G. O.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to Washington, D. C., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

ADAIR, G. W., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to Utica, Mich., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the South, and assigned to duty in the Dept. of the Platte. S. O. 114, C. S., A. G. O.

WILCOX, T. E., 1st Lieut. and Asst. Surgeon, upon expiration of his present leave of absence, to proceed to Vancouver Barracks, W. T., and report to the Comdg. General Dept. of the Columbia for assignment to duty. S. O. 114, C. S., A. G. O.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Texas, to proceed to Boston, Mass., and on arrival report by letter to the Surgeon-General. S. O. 114, C. S., A. G. O.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Relieved from duty in the Dept. of the East, and assigned to duty in the Dept. of the Missouri. S. O. 114, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of Contagious Diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 17, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 10, 1879.	0	3	143	1	46	25	4	0
May 17, 1879.	0	11	159	0	26	31	1	0

DELEGATE TO THE BRITISH MEDICAL ASSOCIATION.— Dr. George M. Beard, of this city, will represent the American Association for the Cure of Inebriates at the next meeting of the British Medical Association to be held in the city of Cork, Ireland, beginning August 5, 1879.

AMERICAN SURGICAL SOCIETY.—At Atlanta, during the meeting of the American Medical Association, steps were taken to organize an American Surgical Society. The movement was initiated by Prof. S. D. Gross, of Philadelphia, and a committee was appointed to report a constitution and by-laws. Dr. Gugas, of Georgia, Chairman; Dr. Watson, of New Jersey, Secretary.

THE THIRTIETH ANNUAL SESSION of the Pennsylvania State Medical Society was held in Chester, Pa., on Wednesday, Thursday, and Friday last. Dr. Andrew Fleming, of Allegheny City, delivered the Address in Medicine; Prof. Ellerslie Wallace, of Philadelphia, the Address in Obstetrics; Dr. C. T. Hunter, of Philadelphia, the Address in Surgery; Dr. R. A. Cleemann, of Philadelphia, the Address in Hygiene; and Dr. James A. Reed, of Dixmont, the Address in Mental Disorders. Committees, specially appointed, reported on "Medical Legislation," on "State Board of Health," on "Female Assistant Superintendents in Female Departments of Insane Asylums," and on "Epileptics who have become Insane." Our next issue will contain a full report of the proceedings in detail.

Original Lectures.

SECONDARY DEGENERATION OF THE SPINAL CORD.—TROPHIC DISEASES OF THE SPINAL CORD.

A Clinical Lecture Delivered at Charity Hospital,

By A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

(Reported for The Medical Record.)

Lecture II.

Gentlemen:—I propose first to-day to present a number of cases which illustrate certain changes consecutive to brain disease, and known as *secondary degeneration of the spinal cord.*

You are doubtless already familiar with certain appearances presented by this class of patients, for disorders of exaggerated motility as the result of hemiplegia are anything but rare. There are several varieties of very striking post-hemiplegic disorder which follow a large effusion or cerebritis, and may occur either as a result of congenital disease or as a subsequent feature of cerebral hemorrhage.

The first patient presented to-day is a baby eleven weeks old, who has a left hemiplegia of intra-uterine origin. It is rare that an opportunity is offered to see a patient at this stage of the disease from which he is suffering in which the trouble is recognized perfectly. You will notice that the limbs upon the left side are powerless, flaccid, and limp, and while he kicks vigorously and gesticulates violently with the right leg and arm, the extremities on the left side remain stationary. It is also noticed that the skin of the affected side is cold, and even at this stage the muscles are found to have undergone a commencing change. A hemiplegia of this kind, as the result of traumatic cerebral hemorrhage, may be produced by pressure incident to forceps delivery, although the skull of the fœtus, as we all know, can endure a great amount of pressure without injury to its delicate contents.

But it occasionally happens, as in this case, that a hemorrhage into the meninges occurs, and a condition is developed which resembles in many respects the adult hemiplegia, but the prognosis is very unfavorable. For in many of these cases a form of secondary degeneration is apt to supervene, and the child becomes deformed, distorted by contractures, and almost helpless, as is illustrated in the next case I show you, a girl fifteen years old.

In this patient you will observe a variety of hemiplegic disorder, which might be called post-paralytic chorea, or to the movements of the hands the term athetosis might be applied. In this case the difficulty is congenital, and there has been, probably, a large cerebral hemorrhage, with descending degeneration, which has involved, to a very decided degree, both lateral columns. You will observe that her feet are distorted and present the appearance seen in an aggravated case of talipes varus; that there is a spastic rigidity which cannot be overcome by ordinary force; that both legs as well as the arms, and also the face, are the seat of jactitations which are decidedly increased when she is spoken to or required to perform any voluntary action. When I hold her wrist, you will observe that there are alternate movements of flexion and extension of the fingers. These movements she is entirely unable to control. The movements of the muscles of the face resemble somewhat those seen in chorea, but are associated with trembling, which is not the case in the latter neurosis. When I tap any of the tendons of the upper or lower extremities there is a marked increase of the tendon reflex. There are, as yet, no sensory disturbances; the functions of the abdominal organs are apparently normal, and her general condition is very good. None of these movements can be said to be essentially choreic, although the disease, doubtless, is very often confounded with that common disorder of early life.

The next patient, a man thirty years old, I present to illustrate a more advanced stage of this condition beginning in early infancy. His deformity is unilateral. You will observe that his entire left side is terribly distorted; that his mouth is drawn to one side; and that his extremities are in a constant state of violent movement. In none of the cases already shown you has there been any muscular atrophy, except that which might arise from the contracted condition of the limb; but there are cases which resemble these in which there is unilateral trouble due to want of development. In this case, E. B., a woman, who has been an inmate of the hospital for twenty years, you will observe a condition which is in striking contrast, in many of its features, with that seen in the other patients, although it might be taken as an example of congenital spastic hemiplegia (hemiplegia infantilis spastica). This girl presents a very marked illustration of unilateral atrophy. A careful measurement shows that the arm and hand, as well as the lower extremity, are only about one-half the size of their fellows, while the same side of the trunk is undeveloped and presents a marked difference in size. In this case, undoubtedly, the opposite side of the brain is atrophied, as in the cases reported by Van der Kolk, and more recently by Taylor, and in addition to the bodily deformity there is low mental development and epilepsy, and the convulsions begin in the paralyzed members. This then is one of the kind of cases described by Bourneville as partial epilepsy. In the next patient may be observed a condition which usually appears later in life, and as the result of a cerebral lesion; there is a destructive process which descends through the tracts of white matter across the pyramids, and down into those parts of the lateral columns to which I alluded at my last lecture as the columns of Fleischig, or the crossed pyramidal columns, and though this is an ordinary termination of certain brain lesions of adult life, it resembles very closely the congenital degeneration. Lesions affecting the internal capsule have been found to be those most likely to be followed by descending degeneration of this kind, and as a consequence many of the symptoms previously described are found. The first indication (often overlooked) of such a descending process occurs usually within a very few days or a few weeks after the cerebral hemorrhage, and is preceded by some general symptoms of cerebritis.

Some of the cases are characterized chiefly by marked contractures of the paralyzed members, while in other cases tremor and disorderly movements predominate. The first local signs of the former complication will be pain which shoots down the shoulder and arms of the paralyzed side, while evidences of neuritis are very often discovered by the pain which follows pressure upon the brachial plexus or the median nerve.

Very gradually, but surely, the fingers become flexed, afterward the hand and forearm. In other cases the

elbow is drawn to the side, while in still others the deformity described by Charcot and Strauss as the *contracture-en-flasque*, finally remains. These contractures seem to involve chiefly the upper extremities, but in some cases the degeneration may descend so as to affect the lower as well. As a condition, observed especially in cerebral hemorrhage occurring in young subjects, and as a rare feature of adult hemiplegia, it will be found that there is simply a rigidity more marked at the elbow- and knee-joints, but it is possible by passive motion to flex and to extend the arm and the leg.

With regard to the variety symptomatized by post-paralytic movements, I may say, that such disorders of movement may be exceedingly numerous, partaking either of the tremor of sclerosis, of the jerkings of chorea, or of the continuous athetoid movements described by Gowers. With regard to prevention and treatment of this condition there is not much to be said, and more depends upon the immediate management of the patient who has suffered from cerebral hemorrhage than upon subsequent treatment.

Of course, in spite of all we can do, it is very possible for cerebral softening to take place, arising primarily from inflammation about the clot, especially in portions of the brain where the cerebral blood-supply is limited, such as the region supplied by the middle cerebral artery. In cases in which it is possible to control the occurrence of inflammation about the clot, we can, in most instances, bring our patient through without the development of any secondary changes.

Any increase in the frequency of the pulse and elevation of the temperature should be promptly met with local derivatives and cardiac sedatives. In those cases in which the temperature is high from the beginning, there is reason to fear the existence of extensive softening, and in such we must be prepared for secondary degeneration. If the degeneration does begin, in spite of our precautions, I find that it is unwise to use electricity in any form. I may here state that I have seen post-paralytic conditions which I believe were dependent entirely upon central cerebritis, caused by the injudicious and premature use of electricity.

The actual cautery may be used over nerve-trunks, should there be pain such as has been already alluded to.

I have found it of the greatest benefit to the patient to wrap the limb carefully with cotton-batting, which should in turn be covered with oiled silk. After the contractures have already appeared, but little can be recommended in the way of treatment. Tenotomy is useless unless the deformity greatly affects the comfort of the patient, the flexion of the finger being so great in such instances as to cause the finger-nails to penetrate the palm of the hand.

Electricity is of little avail. Temporary comfort may be given by soaking the limbs ten or fifteen minutes daily in water as warm as the patient can bear without actual suffering, while general hot-baths are recommended. In cases in which the contracture depends more upon spastic tendinous rigidity than upon actual muscular change, this method of treatment offers unusual advantages. I have found that the tremor is best controlled by the use of conium and the avoidance of general excitement.

TROPHIC DISEASE OF THE SPINAL CORD.

The next class of cases to which I wish to invite your attention are those in which the morbid processes are supposed to be confined to the anterior part of the spinal cord, although their pathology is still a question of dispute.

PROGRESSIVE MUSCULAR ATROPHY.

The first patient is one who exhibits a very interesting and rare form of progressive muscular atrophy. In addition to the muscular wasting, which is bilateral, there exists disorder of the vaso-motor nerves upon the right side of the body. From the fact that he speaks English imperfectly, and is somewhat stupid, it has been found impossible to obtain a very clear account of his early symptoms, but we will assume that, according to the rule, the disorder began with wasting of the muscles of the hand and the forearm, and subsequently involved the muscles of the arm and of the back. In this case you will observe that the upper extremities are alone affected.

This disease, which begins with atrophy, followed by paralysis, prefers the upper extremities, while another form of trophic disturbance, known as *poliomyelitis anterior*, or clinically as essential spinal paralysis, as a rule, invades the lower extremities, and the paralysis *precedes* the atrophy.

In progressive muscular atrophy the course of the disease is usually very slow, the muscles of the palm of the hand and the adductors of the thumb undergoing atrophy in the beginning, so that the hand deformity remains, which has been called *main-en-griffe*, or "claw-hand."

This patient, you will observe, presents this deformity, and, in addition, there is decided atrophy of the flexors and extensors of the forearms as well as the biceps. When he flexes his forearm you will observe that what there is left of the biceps is but a small, rounded lump, while the tendon stands out prominently.

You will also notice a peculiar tremulous condition of the healthy muscles, and those just beginning to be involved in the morbid process. This very characteristic tremulousness has been called *fibrillary* or *vermicular* tremor. The latter term has been applied because it describes the appearance presented by the irregular contraction of muscular filaments when the skin is struck, as though worms were crawling beneath the integument.

The muscles of the back will probably become next involved in the wasting process, and in one case recently under my observation the scapulæ were so prominent that I could easily place my fists in the deep cavity between them.

It is the rule, in these cases, to discover certain trophic changes affecting the skin and its appendages, so we quite commonly find diseases of the nails, eruptions, and other cutaneous lesions; but this man presents something in addition to these. It has been found that he sweats profusely upon the right side of the body, which, you will observe, is more atrophied than the left, while the left side is quite dry.

By careful experimentation I have found that when ammonia is held to his nose the right eye almost immediately becomes suffused with tears, while the left eye remains almost entirely unaffected.

When salt is placed upon the tip of the tongue an abundant discharge of saliva from the right corner of the mouth occurs almost at once.

Dr. Claddek has painted with cantharidal collodion two spots of the same size upon either side of the chest, and you will observe that upon the normal side only very slight changes have taken place, while upon the right, or affected side, a blister was formed almost immediately, and it has been slow in healing.

The next case which I present is one in which the atrophy is not so pronounced as in the others. The patient has phthisis, which is not an uncommon com-

plication of this and other affections of the spinal cord. The tendency of the morbid process is to extend upward. The larger motor cells in the upper part of the cord, and in the medulla oblongata, are ultimately involved, various disturbances of the lower cranial nerves take place, and the patient finally dies of asphyxia. Sometimes death occurs from glosso-labio-laryngeal paralysis, which by some is supposed to be the same disease process affecting another region of the cord.

The duration of the disease is variable. Some of these patients recover, while in other cases the disease lasts from five to twenty years, the atrophy meanwhile involving fresh groups of muscles with more or less rapidity.

In the private case already referred to, the disease has lasted for two years, and the atrophy has involved nearly all the muscles of the upper part of the body.

In another patient I have recently seen the disease has progressed but very little during the last ten or twelve years.

A combination of symptoms following disease of both the anterior and lateral columns of the cord has been described by Charcot, and for some time the symptoms of primary lateral sclerosis and progressive atrophy were sadly mixed; but if you meet with a patient presenting an early atrophy with preceding loss of power and some rigidity, complicated, perhaps, with tremor and involvement of both upper and lower extremities, the existence of atrophic antero-lateral disease may be suspected.

Diagnosis.—The only other trophic diseases with which this can be confounded are certain forms of spinal paralysis, and in young subjects the disease known as pseudo-hypertrophic paralysis, and occasionally it is closely simulated by lead paralysis.

In the first case shown to-day the atrophy was *preceded* by the paralysis, while in the last case the age of the patient precludes any possibility of error in diagnosis. In lead paralysis the atrophy involves all the muscles of one limb if it reaches the stage in which it can be mistaken for the disease under consideration, and there is usually anæsthesia; besides, if you will bear in mind the fact that there are other signs of general plumbic poisoning, I think you will usually be able to make a correct diagnosis.

Treatment.—The only remedy with which I am acquainted, which affords any hope of success in the treatment of this class of cases, is electricity, and I prefer the faradic current, when it is possible to produce contractions. If it is not possible to do this, the galvanic current may be employed.

In certain rare cases, if the extensors are atrophied, I have been in the habit of using the rubber muscle, which gives support to the hand, and in that manner have increased the good effect produced by the battery.

PSEUDO-HYPERTROPHIC MUSCULAR PARALYSIS.

The next patient, a girl 10 years old, is suffering from a disease which is more rare than the preceding, but is one that belongs to the same group. It is the disease known as pseudo-hypertrophic muscular paralysis, first described by Duchenne, and since that time by Continental and American writers; among the latter my friend, Dr. Poore, of New York, who has done much to systematize the labors of others. This child is one of two in the same family, who are affected in this manner; her sister, now at the Randall's Island Hospital, and almost helpless, presents well-marked advanced symptoms of the established disease.

You will observe that she is a well-nourished girl, and, but for the fact that she cannot stand, which is a recent feature of the case, you would hardly suppose that anything was the matter with her; but when she is supported and attempts to walk, her legs are spread apart, and there is a waddling gait, resembling somewhat the movements of a duck.

When her clothes are removed you will observe a peculiar deformity, which is one of the most striking features of the disease; I allude to the lumbar spinal curve. This extreme condition of lordosis gives the child a pot-bellied appearance, while if a plumb-line is held at the seventh cervical spine and the lead is allowed to rest upon the floor, you will notice a degree of anterior spinal curvature which is more excessive than that presented in any disease with which I am acquainted. You will also notice that while her thighs are smaller than they should be, her nates are full, quite hard, and that the muscles of the calf are also indurated in the same way. When the flabby condition of the muscles of the upper extremities is compared with the affected condition of those of the lower extremities, it will be noticed that a curious change has taken place, and you may attempt to pinch the latter, but it is impossible to take such a fold of tissue between your fingers at this locality as elsewhere.

When her stockings are removed, the skin at first presents a mottled pink color, but after it has been exposed to the air, it becomes blue and dusky. This is an appearance of the skin seen in connection with many other trophic nervous disorders. There is, apparently, no disorder of sensibility, and the functions of the bladder and bowels are normal. These facts point to a normal condition of the parts behind the anterior columns. The thigh muscles have undergone decided atrophy, which is not an unusual feature of pseudo-hypertrophic paralysis, and probably increases the appearance of the deformity which, in reality, does not depend upon actual enlargement of the muscles. The muscles, seemingly, have increased in volume, but in reality they have undergone only a fatty change—a fatty substitution.

This disease is rarely seen after childhood, and this girl's sister, who is 17 years of age, is the oldest case I have ever seen. The development of the disease, in many cases, is unrecognized until the time comes when the child should walk. Unlike the essential paralysis of infants, there is rarely any initial fever or convulsions at the beginning, and the first symptom noticed is a gradual loss of power.

In cases in which death has occurred, croup, pneumonia, and other diseases, some of which seem to have no connection with the paralysis, have produced the fatal termination.

So far as I know, no cures have been effected by any method of treatment; although electricity has been recommended by Duchenne and others.

CHRONIC POLIO-MYELITIS, OR CHRONIC ADULT SPINAL PARALYSIS.

The last patient presented to-day illustrates another form of paralysis and atrophy. In this case there was a gradual loss of power at the beginning; and now, after a period of several years, we find her bedridden and helpless.

The disease from which she is suffering is known as chronic polio-myelitis, or chronic adult spinal paralysis. In adults and in children there may be also an acute form of the disease, beginning with fever and convulsions, in which there is almost sudden paralysis, followed by wasting of the muscles, but unattended by any sensory changes whatever. The acute form of the disease is not uncommon, especially

among infants; but the patient before you gives a history of a much more rare and tedious train of symptoms. She is a woman between forty and fifty years of age, and for several years has been engaged in the hospital as a helper. In her work she was almost constantly exposed to dampness, as she was obliged to wash the floors of the halls of the wards.

At the very commencement of her disease she suffered slightly from pain in the back, not of a serious character, however, and it was supposed to be rheumatism; and from that time there has been a gradually increasing feebleness of her lower extremities. On examination, they appear greatly diminished in size.

The *extensors* of the foot seem to be most prominently involved by the atrophy, so that through slow contracture of the posterior tibial muscles there is a condition of beginning double talipes.

There is loss of electric contractility, while reflex excitability of the soles and the tendon reflex are normal.

Of late there has been some anæsthesia of the lower extremities. This symptom, however, has been present only during a few months.

There seems to be no trouble with the bladder, and though she has had frequent passages from the bowels, I do not consider that she has any paralysis of the sphincter ani.

Within the last year the morbid process seems to have extended upward, for there is now some difficulty in breathing, her respiration becoming disturbed after very slight exertion.

There is no cardiac difficulty, and there seems to be only a very slight action of the chest-walls. There is neither ataxia nor disturbance of co-ordination. There is subjective coldness of the lower extremities, and a certain amount of mottling, such as I have shown you in another case.

Sinkler, who has recently published cases of this form of paralysis, is disposed to think that in some respects it is identical with the ascending paralysis of Dejerine, and from the respiratory disturbances in this case I am inclined to agree with him.

I regret that I have not a case of the acute form of the disease to show you now. There has been but one case of acute adult spinal paralysis in this hospital during the past five or six years, though upon Randall's Island I have some infantile cases, which I will bring before you upon another occasion. This form of trouble is quite common in general practice among children.

In these cases the resulting deformities are confined almost exclusively to the lower extremities, consisting ordinarily of talipes equinus, associated with excessive atrophy.

Treatment.—As in all other forms of atrophoparalytic diseases, our main reliance in treatment must be upon electricity.

I will here give you a word of caution regarding the selection and use of electric currents. We too often find that cases are pronounced hopeless after a distinct muscular contraction has been produced with electricity, when, after all, the observer has defeated his chances of successful observation in regard to the occurrence of subsequent contractions by the use of a too powerful current.

There are many cases of spinal paralysis in which muscular contractions may be produced by a mild current, and in those cases the careless practitioner is apt to smother any latent electric contractility by using too many galvanic cells.

It is not well to be in a hurry, nor to attempt to accomplish too much at first, for a muscle may contract once under a stimulus, and not immediately respond a second time.

A second excitation may so enfeeble the muscle that the beneficial results from the first application may be entirely neutralized. It is, therefore, well to begin with a minimum galvanic current, produce one or two contractions, and then allow the muscle to rest for a day, when it will be found that still more marked contractions will follow the use of electricity. When the impaired muscles may be easily aroused by the galvanic current, it will be found that the faradic current may be used with benefit, while in the beginning it will be without effect. It is well to avoid giving pain in the use of eelctricity, for I have often found that painful applications have done more harm than good. By frightening the patient, they also aid in defeating the chances of recovery.

In addition to electricity, cod-liver oil, the syrup of the iodide of iron, and strychnia, may be given with advantage, although in the condition when the muscle is in reality separated from the influence of the cord, no treatment can be so efficient as that of a local character.

Original Communications.

SOME POINTS IN THE TREATMENT OF TYPHOID FEVER.

By SAMUEL PETERS, M.D.,

COHOES, N. Y.

(Read before the Rensselaer County Medical Society, April 15, 1879.)

The treatment of typhoid fever has been, and is, a subject of much controversy, which is likely to result in good. When we think of the course pursued in its management for so many years after it was first made known as a distinct disease—the exhausting treatment; the ignorance or neglect of ordinary rules of hygiene; and, again, the idea that the disease could be *broken up*, or, at least, *cut short* of its regular course; and this to be accomplished only by the most heroic practice called antiphlogistic, which meant at that time that the system must be torn down in order that it might be built up; when we think of such instruction and such practice, we do not wonder that a salutary reaction followed (a reaction only too limited), and that Dr. Graves, of Dublin, desired the epitaph written on his tombstone, "He fed fevers."

The agony of a patient with fever *then*—parched with thirst, starved with hunger, choked with crude drugs in massive doses; and his comfort *now*, present a striking contrast. But while a patient's chances of recovery now are much better—while it is less dreadful in all respects; yet it is in any view a frightful disease, carrying off, as is estimated in England alone, 20,000 persons annually. The estimate in this proportion for even Europe and America would be appalling, and the question forces itself upon us, Can this number be diminished? We answer emphatically, yes. I believe it is being diminished every year by means of our better understanding of its etiology as well as its treatment. Yet I fear we have not reached that point of success which even our present knowledge will warrant, imperfect as it is, owing to the fact that many are heedless, or, to use a milder term, unthoughtful, not enforcing the means already known; and many, perhaps, omit to avail

themselves of a proper knowledge of the facts that have been worked out.

In considering the question of treatment, we shall assume a few facts without offering much proof:

First. That typhoid fever is self-limited, its course being completed in about 21 to 28 days. On this point I believe all authors essentially agree.

Second. That the tendency is toward asthenia—exhaustion from waste of tissue—too rapid oxidation; the waste exceeding the supply. The *mode* of dying is another consideration, and is secondary and consequent upon this rapid waste, often very complicated. Liebermeister and others attribute the immediate cause of death to the excessive heat, producing either paralysis of the heart or paralysis of the brain. Nevertheless, this excessive heat is the result, certainly, of rapid waste, and these paralyses are simply among the various modes of dying. A typhoid patient may die from apnœa, from hypostatic congestion of the lungs, or from syncope caused by general exhaustion of the nervous system, affecting the heart, blood-vessels, respiratory muscles, and indeed every organ of the body. To counteract the modes of death is to counteract the tendency, which, as we have said, is asthenia. This doctrine we are safe in assuming, as it is universally admitted, and is as old as Hippocrates.

Third. We assume that the digestive and assimilative powers of a typhoid patient remain intact—weakened probably in some degree, though not materially, for we find such patients are capable of digesting even large quantities of properly selected and properly prepared food. Upon this point there is also very general agreement. I am aware that the Germans, as a rule, have not fully indorsed this belief; that they have been charged with starving their patients, fearing the injurious effects of food. It will therefore be necessary to briefly examine our assumption of the ability of the stomach to perform its functions. Niemeyer admits the justice of this charge against the Germans, and then distinctly affirms his belief that, contrary to this notion, the stomach and lacteals are ready and willing to benefit by a proper supply of good nutriment. Some careful observers contend that even *solid* food is well appropriated. Prof. Samuel D. Turney, of the Starling Medical College, Ohio, as long ago as 1872, announced this very emphatically, and afterward reaffirmed the same opinion in the *London Practitioner* in the latter part of 1877. On the same point we may refer to an article from the editor of the (London) *Medical Press and Circular* for March 20, 1878, who very philosophically argues in favor of reviewing our old notions in regard to solid food. Papillaud, of Lisbon, takes the same position. Dr. Edward Warren, of Paris, says he is "convinced that solid food is often a desideratum," MEDICAL RECORD, vol. xi., page 47. Other confirming testimony might be adduced, but I will simply quote a few words from a short paper on this subject which I published in the London *Practitioner* for 1878, as indicating my own opinion: "Over and over again I have found that the ingestion of tender meats or bread and milk has exercised a beneficial influence," etc. However it may be with solid food, we are certainly safe in assuming that proper liquid food, at least, is generally well tolerated, digestion and assimilation being very well carried on.

An examination of the opinions of writers on the treatment of typhoid fever, shows that two classes exist. The first class believe in what they call the specific treatment, including principally the systematic use of cold baths, quinine, digitalis, and mercury, which, from statistics carefully collected, seem to result in the lowest percentage of deaths. This class contains many that are eminent in the profession, including a large number of Germans as well as French, English, and American practitioners of note. The second class adhere to the ordinary or common treatment, though differing somewhat among themselves, as opinions and observations differ; the difference consisting principally in one part advocating the careful, though persevering and bold use of drugs, with the hygienic and supporting aids; the other part seek to eschew to a considerable extent drugs or other very active measures, relying more especially upon hygenic means, together with a quite active support of the body by means of nourishment, a line of treatment very properly called *expectant.*

I wish to say in passing that the definition of the word *expectant* seems to be quite loose, and indeed wrong, as used by Dr. H. C. Wood in his Materia Medica, under the head of "Caloric," including within its meaning every treatment used previous to the systematic use of cold baths. The meaning is, "waiting for the efforts of nature." Certainly his use of it is wrong. "Waiting" was surely not a very marked characteristic of most of the old practice.

We will endeavor now, as briefly as possible, to examine these various lines of treatment, divested of prejudice as much as one can be after an experience of nearly thirty-five years in watching the disease and noting interesting points.

For the past few years the journals and other publications have been very well filled with discussions of the various antipyretics, until the question of their value has been quite well decided. The indications and contraindications may not as yet be all fully determined; however, there can be no great difficulty in applying them, with hopes of no inconsiderable amount of good. The extent, however, to which some, armed with the thermometer, are being carried away in the use of these agents, is perhaps to be regretted. They are likely to be used by many too indiscriminately, for while they are powerful agents for good, they are equally powerful for evil. There may be danger of falling into an extreme, as has too often happened in medicine as in other things. The fever thermometer has admittedly become an exalted little instrument, invaluable truly in diagnosis and prognosis, but it should not be made the principal guide in therapeutics. When its rule becomes as rigid as "the laws of the Medes and Persians;" when it declares everything else at our command secondary; when it fosters the belief that *heat* is the only important part of the fever for us to attend to,—we may be giving it too much sway.

The question, to what extent does the excessive heat of the body *per se* injure or react upon it, is not yet fully settled. Some think the parenchymatous degenerations found after death are *not* due solely to the excessive heat. Dr. Grimshaw, of Dublin, denies such an effect. Prof. A. L. Loomis makes this remark in his excellent Lectures on Fevers, published in the MEDICAL RECORD for 1876: "As yet, there are no facts to prove this assertion, for the same parenchymatous changes are found in the bodies of those who have died of diseases, the course of which was *not* marked by high temperature, and did not extend over a period of more than 48 hours." Dr. Warren, of Paris, late surgeon-general, writes to the Egyptian army that "the heat developed in typhoid fever and the virulence of the disease itself, do not sustain a necessary and invariable relation." Other very strong arguments are adduced by Dr. Warren, and may be

found in the MEDICAL RECORD, vol. xi., page 45. Whatever view, however, we may choose to adopt, there is no doubt that the antipyretics are capable of retarding at least the advancement of these degenerations in some mysterious way, and are therefore not to be forgotten, at least in those cases that seem threatening under other modes of treatment.

Very favorable results are shown in the statistics given in Ziemssen's Cyclopedia,—the mortality in some of the German hospitals being reduced from about 27 to 11 per cent. Dr. H. C. Wood, in his Materia Medica, page 616, has collected the statistics from 41 different reporters on the antipyretic treatment, and I find the average mortality is 10 per cent.—one per cent. less than that named above. I am inclined, however, to attribute a share of this diminished mortality in Liebermeister's report to the *omission* of his previous proneness, in common with other German practitioners, to the use of powerful drugs; his attention being given particularly to watching the effects of the antipyretics *alone*. However this may be, I cannot avoid expressing the belief, after carefully testing and examining the subject, that the general, almost exclusive use of the antipyretics, which is becoming so fashionable, "will have its day" like many other other things, then settle down to a proper medium *between extremes;* in other words, that the thermometer is not the only nor even the best guide to treatment. In substantiation of such a belief, I offer the following reasons:

I. It is not proved that heat is the destroying agent. This point has been already anticipated.

II. The mortality under supporting and expectant treatment compares favorably with the antipyretic. Liebermeister, on page 227, vol. i., of Ziemssen, in summing up the comparison of mortality under antipyretic and previous treatment, makes it, as previously stated, 11 per cent. against 27.3 under the latter. This is certainly a very striking difference, and in itself convincing. Yet a little examination may lead us to rather different conclusions regarding the absolute necessity of antipyretics. It will be observed that this large mortality was under the old active treatment between 1843 and 1864—the treatment of 37 years ago down to 15. Since that time we know there has been much improvement in the management of this disease in Germany as well as in other countries, especially in the matter of more active support as well as in hygienic rules; so that we cannot doubt this high mortality would now be very much less. Again, as the compiler himself admits, the diagnosis was imperfect during that period, all the mild cases of typhoid being then excluded from the reports. This would reduce the mortality also. Liebermeister, however, has since published an article showing that this fact would not materially alter the figures. Nevertheless, the difference between 11 and 27 per cent. argues strongly in favor of a systematic antipyretic course, especially, as before remarked, in those cases or in those epidemics known to be threatening.

But let us now compare the figures resulting from a mild, supporting treatment—figures that appear to be reliable, and that have been collected with considerable care. Aside from my own practice, which has been fortunate, leading me almost imperatively to observe and note what I saw in medical publications, comparing all that I thus met with my own observations, I find a practice corresponding with my own in the main yields like flattering results.

Dr. George Johnson, F.R.S., Prof. of Medicine in King's College—Physician to King's College Hospital (London *Practitioner*, vol. xv., page 108), shows a mortality under supporting treatment of 4¾ per cent. The same authority also gives another report of fifteen cases—no deaths. Dr. Lucien Papillaud, in a paper presented to the Royal Academy of Sciences of Lisbon, 1869 (*Boston Med. Journal*, vol. lxxxi., page 132), shows a mortality of 3¾ per cent. under essentially the same practice. Dr. Lazzell (Transactions of West Virginia, *Phila. Med. Reporter*, vol. xxxvii., page 176), under the treatment—to use his own words—of "the less medicine the better," says that a number of the last cases were treated on lime-water and milk, and *all recovered*. Dr. Grimshaw, of the Dublin College of Physicians, "believes that the mortality in the hospitals in which cold water has been tried, is *much higher* than that of the Dublin Hospitals" (*Reporter*, vol. xxxiv., page 196). Dr. Chas. A. Lee reports 4 per cent. in 1859 (*American Journal of the Medical Sciences*, page 335). This was in an epidemic that occurred in Westchester County, New York. Dr. Flamarion "does not see that this method (cold baths), which at first promised so much success, now gives results more favorable than those obtained by Valleix, Bouillaud, Andral, and Louis," and gives his own mortality rate at 1⅓ per cent (*Braithwaite*, Part 72, page 18). Under "Negative and Expectant Treatment," in the Lowell Hospital, from 1840 to 1847, the mortality was 4¼ per cent. (Barclay on Fevers). The mortality at the Massachusetts General Hospital for 1829 was 4 per cent.; for 1831, 7 per cent.; for 1836 to 1838, 55 cases—*no deaths*. The reports from Pennsylvania Hospital for four years, ending in 1854, show less than 6 per cent.

This is all I have been able to find in my own library, which were more or less the result of expectant and supporting treatment. The average of the eleven reports given is 3.2 per cent. This, it will be seen, is 7.8 per cent. less than that of Liebermeister's under his most skilful antipyretic treatment.

III. The effects of antipyretics cannot be properly watched except in hospitals. It is admitted that this is not a strong objection, because contenders will say very pertinently that this does not weigh against the favorable results of antipyretics. Nevertheless, it is a matter of importance in private practice both in city and country, especially in the latter. The antipyretic treatment requires the closest care and attention, especially in noting its effects upon the heart, blood-vessels, and, indeed, upon the system generally; otherwise, serious injury might result. A physician only can be trusted. The best attendant will surely fail.

IV. The use of cold baths particularly involves a considerable amount of extra trouble as well as expense. This, like the last, is a minor objection; yet all will perceive it has its application, especially in country places and among the poor.

V. The apparent good effects of antipyretics, as observed in *some* of the German hospitals, may not prove equally favorable in other countries, or in particular localities or epidemics. A striking fact upon this point is, that the hospitals of Vienna, after a thorough trial of systematic bathing, have decided against it; the results proving unsatisfactory, mortality averaging as high as 20.8 per cent., according to Dr. H. C. Wood's table. Mortality at Ulm, under same treatment, 19 per cent.; at Rheinau, 19; at Stettin, 11; at Ostpreussen, 24, where previously it had been, under ordinary treatment, only 10 per cent. Dr. Grimshaw, before named, has used baths, and says "he will never use them again." Parisian physicians, "so far from establishing the value of cold baths as compared with other remedial agents, have really proved that the

mortality is somewhat increased by them," (MED. RECORD, vol. xii., page 128.) Dr. Pepper, of the University Hospital of Pennsylvania, thinks that "cold bathing cannot be regarded as a mode of treatment with propriety."

VI. Relapses, and various other injuries and dangers, are more frequent under the antipyretics. Various writers sustain this point, and some have already been quoted. Relapses are always to be dreaded in typhoid fever. Liebermeister acknowledges their greater frequency, and says: "It appears that the proportion of relapses, and the number of deaths are both actually increased under the use of cold water." The difference, as he states, is 2·4 per cent. in the relapses, and 8 per cent. in mortality. Biermer testifies to the same fact, as does Lindwurm. The cause of this, as supposed by Liebermeister, is "that this treatment in so far interferes with the normal course of the disease as to retard the development, destruction, or expulsion of the poison as a whole; or entirely to prevent these changes in a certain portion of the poison." Most observers believe hemorrhages are more frequent after baths. This, however, is denied by Liebermeister. Dr. Schultze, of the Heidelberg Hospital, an advocate of baths, says "they cause a considerable increase of hemorrhages by 4.3 per cent." Again, he says, "the different forms of delirium and complications are *much* increased." And again, he says, "neuralgias, and pains in the feet and muscles of the lower extremities appear frequently." Bed-sores and chest affections are, perhaps, less frequent when baths are skilfully used. The percentage is, however, very small.

Hitherto we have spoken more particularly of baths. For quinine, we may remark that in large doses it is about as certain an antipyretic as baths, and while open to some objections, when used in the largest doses, and is therefore rejected by a few, its reputation is very well maintained; Liebermeister prefers it to baths, if but one antipyretic agent is to be used. Undoubtedly a larger number of contraindications will be found than are at present known, and its indications better understood, especially in the pyrexia. Some precautions, however, are to be remembered. Prof. Lindwurm cautions against its use in large doses in *weak heart*. Prof. Binz shows that large doses are capable of producing death by paralyzing the heart; hence the necessity of watching the condition of this organ before and after the administration of antipyretic doses. Niemeyer abandoned large doses. Dr. Peacock of London reports against it, as does Dr. Edward Warren of Paris, Barclay, Hughes Bennett, and others. My own experience is limited, having found the treatment alluded to in this paper generally sufficient. I can say that I have never observed any evil effects from its use, except that it appears to aggravate the diarrhœa. Dr. H. C. Wood and Roberts Bartholow speak distinctly of its irritant action upon morbid states of the intestinal mucous membrane, yet I do not remember to have observed any mention of this in any writings on typhoid fever.

Digitalis is an acknowledged antipyretic, and like the others is not to be given when there is any considerable degree of cardiac weakness. Liebermeister says: "The rule for its application is just the opposite to what it is in disease of the heart. The impending paralysis of the heart is not prevented by the use of this drug, but seems rather to be favored thereby." The temptation to resort to it in *all* cases, as a "heart tonic," renders this caution doubly important. Certainly there is reason to fear that this powerful remedy may sometimes be misapplied in typhoid fever.

VII. The last objection we will name is that antipyretics are not necessary in a large number; perhaps we may say in a *large majority* of cases of typhoid. We know that the disease is self-limited; that it cannot be cut short; that heat is an inevitable symptom; that we are to support early the otherwise rapidly wasting body; that digestion and assimilation are fortunately on the side of the patient. We may therefore lean confidently upon the excellent hygienic rules well known to us, avoiding drugs and all strong agencies as much as possible. I cannot help thinking these are truisms; some of them very old, none of them really new, yet well worthy of our thought and attention, and as we have seen, not wholly devoid of promise.

One point of the first importance in the management of a case of typhoid fever, is the selection of a large, airy, quiet room. If any point in hygiene is important, it is that of perfect quietude. No person should be admitted except the attendant and physician. A few strange faces in the room for only a brief time will very likely insure a restless night, as well as a higher temperature. Even friends and intimate acquaintances should not be admitted, though they promise to remain silent. If my patients have no other luxury, they *can* and *shall* have this one. Grant it, and a careful, quiet attendant, and the thermometer will surely indicate a lower scale. Next, always prepare everything for disinfecting immediately all excretions, and all the soiled clothing before they are removed, to effectually prevent any further spread of infection. All this is advisable, though we may not indorse the full doctrine of contagion. In the meantime carefully seek for the source whence the patient was first infected, and we will often be happily rewarded with success. The source once found, will be a pleasing subject for thought, and *useful* thought, too. Lastly, assure the patient of his ultimate safety; speak to him confidently, count the days for him, encourage him by assuring him that he can have the disease but once, etc., etc.

I am aware that we are not writing for children, but I like to expend words on such a theme; therefore I shall have full pardon.

Cleanliness is, as all know, important. Especially should the teeth be often and thoroughly cleansed from sordes and foul secretions, which would otherwise be left to form a continual fountain of putrid, poisonous matter. This is to be thoroughly done by the attendant, if the patient is unable to do it for himself.

His position should be often changed, to aid in preventing hypostatic congestion of the lungs and other organs. This little manœuvre is unquestionably of great utility—much more than the time it takes to mention it. Even the brain, I believe, sometimes suffers from this hypostatic force of the blood. I further believe the *weight* of the various organs may discomfort and injure them, when the patient is allowed to maintain one position for weeks. The heart certainly cannot afford this.

I desire now to speak of the question of washing the body, so commonly recommended. I do so with great diffidence, because I shall find myself at variance with most—perhaps I should frankly say, *all* authors. However, we will venture it. Do not be constantly scrubbing the skin, either in health or disease, especially in the latter, when the powers of life are going through with a most trying struggle. It costs vitality something to rudely scour the whole surface frequently. If we were once aquatic animals, we

are not now. Even a full bath a few times a day is not as objectionable as this, the disturbance not being half so great. Where the patient desires it, it becomes another thing, and will very likely do good if not repeated too often.

In regard to alimentation, I need scarcely say it is immeasurably important. It is a radical principle in typhoid therapeutics, based upon experience and the combined testimony of the largest number of those most experienced. We would as soon think of saving a man's life without tying or compressing a severed artery, as to think of treating typhoid without diligent support. Rapid waste is steadily and surely going on from beginning to end. Combustion is intense, involving the tissues everywhere. As Niemeyer well says, "No sort of exercise will use up the body so rapidly as a fever does, and most fatal cases of fever are due to insufficient material being furnished for the replacement of that used up." "Food and sustenance," says Aitken, "are the real preventives of delirium, and the best stimulants of the nervous system." Invariably do we see a patient who has been well fed, get up from a typhoid fever but little emaciated. More than this, such ones convalesce more rapidly. There can be no doubt in the propriety of even crowding the patient to take nourishment, especially if he is listless or refuses. I am sure by so doing many a life has been saved.

The kind of food has been a subject for much discussion, but it is now pretty generally settled that *milk* should form the basis. It is at once abundant, cheap, always ready, no cooking process needed, and it contains all the elements of support and nutrition which the system requires; nature's own compound, and like herself *perfect;* adapted to all ages, as well as every stage of the disease. It may be given clear, or, perhaps, preferably with lime-water, and if it produce a fulness at the stomach, failing to digest properly, it may be aided with pepsin, as recommended by Dr. W. H. Thomson, of New York. The quantity should be, if possible, from three to six pints in twenty-four hours. I once had a case, a lady of large frame and plenty of adipose tissue, that drank every day four quarts by measure of clear milk. I was frequently inquired of as to the probability of her recovery. I answered that she *could not die*, because she was able to appropriate so much nourishment. She recovered, of course!

For the diarrhœa there is probably nothing equal to a milk diet, and as a support to the nervous system it can scarcely be surpassed. It must not be forgotten, however, that it fails to agree with all cases; that it requires in some instances to be given in smaller quantities, the deficiency to be made up in other food. Occasionally a case will be found wherein it must be discontinued altogether. Very rarely indeed, however, must this happen. Solid food, as before said, is often agreeable, such as tender meats, stale bread, etc. Grapes and peaches I have always found acceptable, notwithstanding their interdiction by Liebermeister.

Beef-tea, so fashionable the world over, is at best *poor stuff*. It easily ferments in the stomach, and must then surely increase the diarrhœa as well as the tympanitis, by filling the intestines with gas (Ziemssen, Johnson, Liebermeister), and further, we know it contains little nourishment. I have generally found eggs objectionable also, especially if taken raw in the form of egg-nog.

Inunctions of the whole cutaneous surface, several time a day, with fresh lard or olive-oil, with or without lime-water, are highly useful. Many are aware of their beneficial influence over the extreme heat of scarlet fever. They are equally valuable in typhoid fever. They reduce the heat quite perceptibly; keep the skin moist, open, and active; sheath the sensitiveness of the cutaneous nerves, and thus promote rest. I find they are highly praised by Dr. Thomson, of the University of New York, who has marked a fall in temperature of from one-half to a full degree. He further believes it relieves the thirst by "restoring the functions of the skin, which enables it to add water to the system when needed, as well as to abstract it when the circulation is too full." He is quite sanguine in the belief of its good effects also in cases of general anasarca when the skin is tense and thus rendered incapable of performing its functions. Furthermore, he thinks these inunctions prevent bed-sores (MED. RECORD, vol. x., page 709). Dr. Edward Warren also indorses these views fully.

Drugs are often useful. A discreet physician finds some use for them to subdue, now and then, an excessive diarrhœa, or cough, or active delirium, or other symptom. But many believe, with myself, that in fevers and most other self-limited diseases the old maxim is appropriate, "Throw physic to the dogs."

Antipyretics have their place, as we have tried to show, especially quinine; but remember they are not *always* called for when the thermometer gives an alarm.

Turpentine is a most useful remedy in the later stages. Opium and acids are occasionally called for, etc., etc.

A long list of names could be appended to the above sentiments, but we will close with the excellent words of Dr. Aitken: "It is, above all, necessary to guard against the habit of trying always to be doing something."

PLACENTA PRÆVIA — INDUCTION OF LABOR — AN ILLUSTRATIVE CASE.

By EDWARD L. PARTRIDGE, M.D.,

NEW YORK.

APPROXIMATELY, the mortality in placenta prævia, as indicated in the statistics collected by Sir James Simpson, Dr. William Read, and Dr. Trask, and in the recorded and related experience of many other noted obstetricians, may be stated to be between twenty and thirty-three per cent. as regards mothers; while between fifty and seventy-five per cent. of the children have perished.

The induction of premature labor, as a method by which this large mortality may be diminished, is a practice which has been advised and adopted within a very recent period of time. A no less reliable writer than Dr. T. Gaillard Thomas is responsible for the statement that he believes that, previous to fifteen years ago, "no work, essay, or text-book" advised this method of treatment. Previous to this time, it is true that in many cases premature labor occurred spontaneously, and in other cases the means adopted to control hemorrhage—such as the tampon—had the effect of exciting uterine action; but it remained for Greenhalgh in England, and Thomas in this country, to clearly show that the induction of labor, perhaps not even at the time when a hemorrhage was taking place, but in *any case* in which the *existence of placenta prævia was ascertained*, was the chief factor in the successful treatment.

The principal advantage of this over other methods arises from the fact that the entire labor is under the immediate observation and control of the attendant,

while the danger of a sudden and fatal hemorrhage previous to his arrival, if he decides to wait until the natural termination of pregnancy, is a grave one.

These statements, I think, afford a sufficient reason for relating the following illustrative case:

On April 12, 1879, I was called to see Mrs. S., and obtained from her this history. She had borne six living children, and was now thirty-seven years of age. Her labors had always been characterized by her medical attendants as tedious, but were never complicated. Her last menstruation was from July 6th to 8th, and she was therefore approaching the end of the ninth month. On January 10th she was attacked with pneumonia, and was sick a little more than two weeks. On January 25th, 26th, and 27th she observed a moderate discharge of blood, unattended by pain, which was sufficient to stain her clothing, but was not worthy of being called a hemorrhage. Six weeks ago a similar discharge appeared, which continued three days. Four weeks ago she sustained a severe hemorrhage, and, in a few hours, lost more than eight ounces of blood. Rest in the recumbent posture checked the discharge, though it continued in moderate quantity for three days, during which time there escaped some coagula.

On the morning of April 9th, she took castor-oil, and in the evening of the same day, while having a movement from her bowels, she was seized with a sudden and profuse hemorrhage. This continued to be excessive, and she remained constantly in her bed. Any movement would aggravate the flow. Up to the morning of the 12th inst., during this attack, she thinks she lost more than eight ounces of blood. She passed several clots as large as half an orange, but had felt *no pain* of any kind. Her statements were not exaggerated, as they agreed with those of her husband, and both were persons of intelligence.

When I saw her on the 12th, she exhibited, to some extent, the effects of the loss of blood. The pulse was slightly accelerated, and the face and mucous membranes of the eyelids and lips somewhat blanched, still she "felt well." Local examination revealed the os high in the pelvis. The cervix was very soft and about two inches in length. Two fingers could be passed within it and the structure of the placenta detected in all directions. The discharge of blood at this time was in quantity as if she was menstruating. Fœtal movements were vigorous. During the next few hours nothing of any importance occurred. In the evening Drs. J. Williston Wright and J. H. Fruitnight saw the patient in consultation with me. The latter gentleman had attended the patient in the past, but understanding the requirements of such a case, and living at a considerable distance from her, had kindly referred her to me.

The proposition to induce labor and deliver her at once was accepted by all of us as the best treatment for the case. An enema served to empty the rectum of a large fecal accumulation. A more complete examination revealed the strong pulsations of the fœtal heart at 152, most distinct in the right hypogastrium, but quite perceptible to the left of the median line. The uterine souffle was most marked above the line of the umbilicus toward the patient's right side. Palpation showed the child's head inferiorly and a little to the left of the median line; the breech could be felt to the right, superiorly.

Chloroform was administered and the patient kept partially under its influence. At 9 P.M. the middle-sized Barnes's dilator was inserted, distended, and in ten minutes removed from the vagina into which it had slipped from the os.

The large dilator was introduced and was in position about twenty minutes, when its usefulness ceased, owing to the dilatation of the os, and it was removed. Each dilator served not only to effect expansion of the os, but also to dissect up the placenta for a little distance beyond the margin of the os, so that there ensued no hemorrhage after their removal.

The chloroform was now pushed until complete anæsthesia was produced.

It was determined to perform internal version, and I passed my hand into the vagina and cervix and began to rapidly separate the placenta from its uterine attachment. At first this was done in all directions, with the hope that at some point its margin would be reached at no great distance from the os, but not finding the placental border within easy reach, and profuse hemorrhage commencing, I chose to advance in the direction (toward the mother's left) which, owing to the child's position in utero, offered the most ready access to the feet. Passing my hand between the membranes and the uterus, until near the fundus, the left foot was easily distinguished and seized through the membranes. Version was readily accomplished, the arms brought down, and delivery completed at 9.45 P.M. The placenta came with the child. There was very little liquor amnii. The length of time from the introduction of the first dilator until completion of labor was forty-five minutes, and the time from the introduction of the hand into the vagina until the termination of delivery, less than ten minutes. About four ounces of blood was lost.

The child weighed eight pounds, and had a pulse of about eighty at birth. Within a minute respiration was established with natural heart's action. During the process of dilatation about eight slight uterine contractions took place, the uterus straightening up and becoming hard. During the extraction of the child, the uterus acted forcibly, and, after delivery, never for a moment showed any disposition to relax. Ergot was administered subsequently. There was no condition of shock resulting from the rapid delivery.

An hour and a half later the patient was asleep with a pulse of eighty. Convalescence was normal in every respect and the child was strong and active.

The placenta—which was centrally situated with almost mathematical accuracy—was of large size and nearly circular. Its greatest diameter was ten, and its shortest eight and half inches. In its centre, at the point of implantation over the os, there was an accumulation of white fibrous tissue. The umbilical cord measured fifteen inches.

The oft-quoted statement made by Nagele concerning placenta prævia, that "there is no error in nature to be compared with this, for the very action which she uses to bring the child into the world is that by which she destroys both it and the mother," will always remain full of meaning. I cannot but feel, however, that when the induction of labor is recognized and practised as the *important* element in the treatment of this complication, statistics will place "unavoidable" hemorrhage in a very different position from the formidable one which it occupies in the literature of the past and in the mind of the practitioner.

It is as important to decide upon the proper *time*, as upon the best means to effect delivery.

The arguments in favor of this method of treatment, which have been offered by Greenhalgh, Thomas, and Parvin, cover the entire ground, and there seems to be little to add now except statistics to confirm them. Owing to the infrequent occurrence of placenta

prævia, an accumulation of cases from which to draw deductions can come only in many years.

It is certainly the duty of practitioners to report faithfully both successful and unsuccessful cases in which induction of labor is employed, until there can be no doubt in any mind concerning the utility of the operation in this class of cases, which, in the past, has excited much anxious attention from general practitioners and renowned obstetricians.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

INTERESTING CASE WITH REFERENCE TO DIAGNOSIS—JAUNDICE—MARKED FEBRILE MOVEMENT—DIMINUTION IN THE SIZE OF THE LIVER—DELIRIUM-DUODENITIS—RECOVERY.

THE following case was especially interesting with reference to diagnosis and severity of symptoms: A female patient, a native of Ireland, aged 33 years, a widow, and a domestic, was admitted to the hospital on the 13th of January. Nothing definite could be obtained with reference to her previous history. At the time of admission she had a well-marked febrile movement, the temperature being 105¾° F. At the same time she was very deeply jaundiced. Physical examination gave negative results, except with reference to the liver and spleen, both of which were somewhat enlarged. In addition, there were cerebral symptoms; the woman was mildly delirious. The tongue was coated, was brown and dry, and except for the jaundice the patient presented very much the appearance of one suffering from typhoid fever.

On the night of January 14th the delirium became so violent that it was necessary to remove the patient from the ward to one of the cells.

On the 15th of January the patient was again rational and was transferred to the ward. The temperature during this time continued high.

On the 16th of January physical examination was made, and it was found that the liver, instead of being enlarged, was diminished in size.

On the 17th of January her temperature was 103° F., and she was again delirious.

On the 18th of January her temperature was 102° F., the tongue had commenced to clean and was moister, the jaundice had diminished, her mental condition had improved, but the liver still remained small.

On the 19th of January her temperature in the morning was 99½° F., and in the evening 100° F., and she was perfectly rational.

On the 20th of January her morning temperature was 99° F.; evening temperature 99½° F., and she was feeling nearly well.

When first admitted the general condition of the patient was such as to indicate a probable fatal termination of the case, and such prognosis was made during the first two or three days of her sickness. The disease naturally suggested was acute yellow atrophy of the liver. For, soon after admission, there was rapid and marked diminution in the size of the liver, and the jaundice and the cerebral symptoms were well-marked. Against that diagnosis was the fact that there had been neither gastric nor intestinal disturbance. It was remarked that in all the cases of acute yellow atrophy of the liver which had been observed there had been some disorder of the stomach and bowels, and notwithstanding the jaundice, the high temperature, and the cerebral symptoms, the marked diminution in the area of hepatic dulness, the visiting physician was not willing to say that the patient was suffering from acute yellow atrophy of the liver.

The progress of the case, it was thought, made the diagnosis quite clear, and it was regarded as one of *duodenitis*.

The symptoms were much more severe than those developed in ordinary attacks of duodenitis or gastro-duodenitis, but in that respect it was thought that it might safely be regarded simply as an exception to the general rule. For, occasionally cases of apparent duodenitis at least were seen, which gave such a history as the woman before us.

It was farther remarked that if there was good reason to suppose the patient had a fatty liver, it would make the explanation of the case much easier. For, when duodenitis was developed in connection with fatty liver, the symptoms were much more marked, especially the cerebral symptoms. But the liver was of small size, so small that another condition was suggested—namely—cirrhosis.

In most women, dressed according to common custom, the free border of the liver is below the free border of the ribs, but in the patient before us the free border of the liver was above the free border of the ribs.

It was thought to be quite possible that the patient was suffering from cirrhosis of the liver, which possibly might explain why the symptoms of duodenitis had been so much more severe than in ordinary cases.

The experience was such as the visiting physician had had before, and had led him to the conclusion that it was well not to be in haste with reference to making a diagnosis of acute yellow atrophy of the liver. The treatment was almost nothing.

Quinine was administered when the temperature was the highest, the patient was nourished chiefly with milk, and the disease was allowed to run its course. The case was regarded as one which served well to illustrate how severe the symptoms of duodenitis might be.

Progress of Medical Science.

CHAULMOOGRA OIL IN PHTHISIS.—The value of chaulmoogra oil has been tested by I. Burney Yeo, M.D., in nine cases of phthisis, and the results of his investigations published in the April number of the *Practitioner*. The oil has a nauseous odor and taste, and is solid when cold, rendering it necessary to mix it, after warming, with some diluent, as almond oil. Of the nine cases, three are dead; one passed from observation, after taking the oil for a fortnight, without any improvement; one found it impossible to continue it on account of the gastric disturbance it produced; one appeared to get decidedly worse during the administration of the oil, became very feverish, his temperature rising to 104°, then, on the discontinuance of the oil and the substitution of the hypophosphite of lime and cod-liver oil, he mended considerably; one, after taking the oil for two months, was no better, and was allowed to discontinue it, as he complained that it made him sick; one discontinued his attendance after the first fortnight and sent

word that he was "not so well;" and one improved considerably. These trials are not claimed to be conclusive, but they certainly are not very encouraging. It is proposed to give it one or two more trials in the form of *perles*, and in as favorable and early cases as come within observation.

Sulphur as a Topical Application in Diphtheria.—Mr. Stuart, of Danse, N. B., used sulphur for destroying diphtheritic membranes on the tonsils with sufficient success to induce him to report the case, hoping that others may be tempted to test the value of the remedy. The sulphur was applied every hour by means of a quill, and the membrane on the right side had disappeared by the next day; on the left side no trace of it appeared on the third day. The membrane first became blackened, and then detached; but Mr. Stuart does not offer an explanation of the *modus operandi*. In spite of the rapid disappearance of the membrane, the patient suffered subsequently from a slight attack of paralysis of the larynx and pharynx. Shortly afterward his elder brother became affected with the disease, but made a good recovery under maternal treatment with sulphur. Another case has since been treated successfully in this manner by Mr. Stuart, with the exception that swabbing the throat with sulphur and water took the place of blowing the powder on.—*The Practitioner*, April, 1879.

Animal Heat.—The source of animal heat has always been an interesting question to physiologists and one difficult of satisfactory elucidation by experiments. Nevertheless, Dr. A. Flint, Jr., thinks he is justified in drawing the following conclusions from his own observations and those of others:

1. It is probable, and indeed almost certain, that nearly all the animal heat is produced by oxidation, in the body, of certain elements, which are chiefly nitrogen, carbon, and hydrogen.

2. It is probable that this oxidation does not take place entirely in the blood, but that its seat is in the various tissues, and that it is connected with the general processes of nutrition and disassimilation. Heat is thus evolved, and the final products of the chemical actions involved are mainly urea, carbonic acid, and water. It must be remembered, however, that the oxidation is not necessarily a process identical with combustion out of the body, but that it is probably connected with a series of intricate molecular changes, which cease with the life of the tissues, and of which we can only recognize the final results, viz., calorification and certain chemical products.

3. Recognizing the products urea, carbonic acid, and water as representing probably the evolution of a certain amount of heat, we cannot account for the heat actually produced in the body by the amount represented by the urea and carbonic acid discharged. If we admit that hydrogen is oxidized in the body, resulting in the evolution of heat and the production of water, this will enable us to account for all the heat actually manifested as heat, leaving an excess which may be converted into force.

4. My experiments show pretty clearly that when no food is taken, and when, food being taken, muscular work is performed, so that there is loss of body-weight, water is actually produced in the body. This, and this only, enables us to account for all the heat evolved under these conditions. There is no reason to suppose that the processes involved in the production of heat are radically changed in their character when enough food and water are taken to maintain a uniform body-weight.

5. Animal heat is produced mainly by the waste of the hydrogen, carbon, and nitrogen of the tissues, the waste of these elements being supplied by the food. Probably the oxidation of carbon and hydrogen is a more important factor in calorification than the oxidation of nitrogen; at least, it is certain that the heat-value of the oxidation of carbon and hydrogen is greater than that of the oxidation of nitrogen, and the heat thus produced is very much greater. Of the two elements, carbon and hydrogen, the oxidation of which produces animal heat, the heat-value of the hydrogen is by far the greater.

6. It is probable that there is always a certain amount of oxidation of hydrogen in the body, and that this is necessary to maintain the animal temperature; and it is almost certain that this occurs during prolonged absence from food, and when the production of heat is much increased by violent and protracted muscular exercise. It may also be that there is an active and unusual oxidation of hydrogen, as well as of carbon in fevers.—*American Journal of Medical Sciences*, April, 1879.

Ununited Fracture of the Humerus.—A case of ununited fracture of the humerus, which had resisted all efforts to make it unite, was successfully treated by Dr. Le Moyne, Pittsburg, Pa., by double splice and clamp. From the lower fragment a piece was removed, leaving a V-shaped depression, into which was fitted the wedge-shaped extremity of the upper fragment. A clamp of steel wire, bent at right angles a short distance from either extremity, was now fitted to the bone, a hole being drilled in either fragment for the bent extremity of the clamp. Apposition was perfect; splints were applied, and the patient kept at rest. The next day, however, the clamp had shifted, and some displacement ensued. Wires were now passed around the bone, so as to secure the clamp to both fragments, splints re-applied, and the wound dressed with oakum and balsam of Peru. The operation was performed on the 23d of October, fifteen months after the receipt of the original injury. On November 26th the dressings were completely removed for the first time, and some union found; by December 9th the union was firm and complete. About December 20th, an attempt was made to remove the wires and clamp; but they were so firmly imbedded in the provisional tissue, and the wound appeared so healthy, that the wires were cut short and they were left in position. When last seen, the wound had almost closed; the mobility of the elbow-joint was somewhat impaired, but improving.—*The American Journal of Medical Sciences*, April, 1879.

Duboisia as a Mydriatic.—The local effects of duboisia myoporoides, when applied to the eye, are similar to those of atropia; but they are more promptly produced, and disappear more rapidly. Its greater tendency to produce constitutional disturbance, however, should cause it to be carefully used. Nearly every patient into whose eyes a four-grain solution had been dropped complained of dizziness within a short time after its instillation, usually noted after rising from their chair. They do not, however, complain so much of dry throat as those treated by atropia. Where persistent use of atropia has failed to tear loose posterior synechiæ, but little effect has followed the employment of duboisia. On the other hand, it gave much satisfaction in two cases where atropia called forth marked conjunctivitis. One was a severe iritis, the other a case of cataract, where, owing to capsulitis following extraction, it was desirable to maintain dilatation of the pupil.—Wm. F. Norris, M.D.: *The American Journal of Medical Sciences.*

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, May 31, 1879.

DUTY ON CINCHONA ALKALOIDS.

For some time an effort has been made to secure the passage of a bill by Congress which shall remove the duty from the cinchona alkaloids. The effort thus far has for some reason failed. It being a question in which the medical profession is directly interested, the nominal influence of that great body has from time to time been sought in favor of the enactment of such a law. It is, we believe, the prevailing opinion among medical men that the duty on these articles should be removed; and the representative body of the medical profession in this country, the American Medical Association, has at various annual meetings declared itself in favor of such a measure, perhaps without knowing exactly why, or how, the crockery in this china-shop should be broken. At the last meeting of the American Medical Association, held in the present month at Atlanta, a delegate from Philadelphia presented a bit of fine ware in the shape of a memorial, or petition, or communication from his county medical society, asking the Association to reverse its former action, and declare itself in favor of allowing the law to remain unchanged. The communication was immediately tabled; and not only that, but the gentleman upon whose motion it was laid upon the table, at once moved and secured an unanimous affirmative vote of this delegated body, containing representatives of the profession from a large number of the United States, upon a resolution asking Congress to remove the duty upon all alkaloids of cinchona. This action on the part of the profession had its effect, for upon the following day, a monopoly, represented by the three largest manufacturing companies in this country, appeared before the Association wearing the old threadbare suit in the form of a communication addressed to the Chairman of the Committee of Arrangements, stating that if the duty on quinine was removed, they could no longer continue its manufacture. That communication was also laid upon the table, thus showing that the profession had little fear its wants in that direction would not be supplied. Neither the profession nor the people need fear that the alkaloids of cinchona cannot be obtained, should the duty be removed at once and these firms cease manufacturing them. But they would not stop their work. It is doubtless true that the cinchona alkaloid can be as well and as cheaply made here as in any other country; that the duty simply increases the profits; and that no makers with established apparatus and processes will stop if the duty is removed. But suppose they do stop, it will not harm the therapeutic interests, because the cinchona-barks they use would remain in Europe, or go directly there, and the same quantity of alkaloid-salts would at once be accessible at lower prices. This is true, simply because the duty now enables manufacturers here to pay higher for barks than they would bring in Europe, thus rendering our makers injurious competitors with the cheap makers in Europe, while the higher prices paid here for barks are transferred to the cost of the consumer in the product. Again, if the makers in this country should stop their machinery, the cinchona market of the world would lose the competition of a powerful monopoly supported by a direct tax on the consumer, and all Europe would get barks cheaper, thus enabling it to produce alkaloids at lower prices, and in the same aggregate quantities. All the cinchona-barks produced and producible at the present low prices are made into alkaloid salts, and probably will be, and the salts are all consumed, and it is a matter of small moment to this country where the salts are made, so they are made. It is, however, of very great importance that they should be had cheaply; and if our makers should stop now, with the duty on, and not deal in either the barks or the salts, the latter would probably be sold cheaper in this market than they now are. As an evidence that this is true, our makers have for a long time been large importers of these salts, and have themselves paid the duties, with a fair presumption that they made money on their importations, as well as a much greater profit on what they manufactured. There are thousands of consumers in this country who suffer from a direct tax imposed upon them by a wealthy monopoly at home, aided by an act of Congress that fixed an iniquitous discriminating duty of 10 per cent. on articles coming via Europe from the east of Cape of Good Hope. We believe that Congress cannot do more to relieve suffering humanity in the United States than would be realized from an immediate removal of all duty from cinchona-barks and their alkaloids. The resistance from monopolies will be great, but the medical profession and the people will sustain their representatives in such a movement.

THE INCREASE OF MALARIA IN NEW YORK CITY.

For some time there has existed an impression that malaria is rather increasing than diminishing in New York, and this has been remarked especially during the past winter. Statistics, so far as they go, tend to corroborate this idea. Thus the total number of deaths from malarial diseases, including also typho-malarial and simple continued fevers, was in the six months, including the winter of 1874–'75, only 118. In the corresponding six months of succeeding years this number gradually increased to 125, 132, and 139, while in the six months ending with March, 1879, the number was 178. The number of deaths in the other half of the same years shows a similar gradual rise.

Now, as the mortality from malarial poisoning is extremely small, it is obvious that under ordinary conditions even a slight rise in the death-rate would indicate a very large increase in the number of cases mildly affected by the disease. Without claiming too great value then for the figures given, we believe it a fair inference that malarial diseases have been and still are increasing in this city. If it be so, the fact warrants some attention. This, indeed, it has already received in some quarters, and speculations and inquiries as to the cause are appearing in print.

It is asserted that there have not been any sufficiently marked meteorological conditions to account for the increase of the disease, also that this increase cannot be laid to upturning of the ground, or to old water-courses, or defective plumbing; for, if anything, there has been improvement in all these things. As a last resort, the theory is broached that the malarial germs are brought to the city by croton-water. The capacity of the lakes from which this water comes has been severely tested of late. They have been drained so low as to lay bare their banks to a considerable extent, and have thus increased the amount of malaria in their vicinity. The idea, therefore, that the poison is conveyed to us through the pipes appears at first to have some plausibility. We are by no means inclined to adopt it, however. It has, in the first place, never been proven that malarial poison can enter the system by drinking-water, it being more likely, in the few cases where this has appeared to be the case, that the bad water was only an exciting cause. To mention no other argument, however, the fact that the mortality from malaria is not notably increased in the summer months, when alone the poison can breed, is marked evidence against the theory.

The truth is that the ways of the malarial germ are often erratic and inexplicable. Although warmth, moisture, and decaying vegetable matter are generally the factors in producing it, these are often insufficient, and other and inscrutable elements must be assumed as exciting or preventing its development. There seems to be such an element in the present increase of the disease in this city.

THE PLAGUE.

The name plague has been applied to a number of malignant and rapidly-extending epidemics, between twenty and thirty of which have been recorded as occurring. The bubo-plague, the form of the disease which has recently visited Russia, is a product especially of the present era, and first occurred with greatest severity in the sixth century. The plague in general, however, according to Dr. D. N. Kinsman, who has given an excellent account of it in the *Ohio Medical Recorder*, has occurred in three different forms during the world's history.

In the first form the poison affects the nervous system especially. The patient is suddenly and violently prostrated, and either rapidly succumbs or recovers.

The second form is the one that attacked Athens and Persia, B.C. 540. The disease was graphically described by Thucydides as follows: "There was headache, fiery redness of the eyes; the tongue and throat were blood-red; the breathing was difficult and of noisome odor; there was sneezing and hoarseness, spitting of blood, vomiting, fluxes from the bowels, and hiccough. The body was reddish, with livid pustules and sores; there was a sensation of great internal heat. The patients could not remain covered with clothing; they longed for nothing so much as to be plunged into cold water, and many, from not being properly attended, plunged into wells and perished. There was great restlessness, so the patient could not sleep. In spite of this terrible condition, there was no visible wasting of the body. The malady at times beginning in the head, shot down into the fingers and toes, and even the private parts, by the losing of which they escaped with their lives. Neither animals nor birds preyed upon the bodies of the dead, and those which tasted died. Some died for want of care, and what was a relief to one was prejudicial to another. Differences of strength or weakness were all swept away by the pestilence. Neither prescription nor diet protected. If fear held them from going near one another, they died for want of help; and if they ventured, they were gone."

The third form, to which we have referred, is attended with intense fever, buboes, and gangrenous sloughs, and has been previously described in this journal. It has appeared as a severe epidemic only four times.

Assuming a certain amount of pathological identity between these forms, the affection can claim no inconsiderable part in the world's history. It has rarely appeared without slaying its thousands, or even millions. It destroyed the hosts of Assyria; the immortal Galen discreetly fled before it; if we may believe historians, it hastened the disruption of the Roman Empire, and was a potent factor in the intellectual and religious changes of the fourteenth century. That it has devastated vast tracts of land, humiliated kings, incited religious as well as medical fana-

ticism, and then destroyed the fanatics, is sufficiently well known. The plague which appeared in the fourteenth century caused the death of 100,000,000 people, its greatest virulence extending over only three years. Those could not have been jovial times. In past years, too, to add to the terrors, the epidemics were almost always accompanied with remarkable terrestrial phenomena: terrific storms, swarms of locusts, earthquakes, and volcanic eruptions.

Passing from its history, we find the cause of the disease to be a specific contagium, which may originate *de novo*, may be transported by fomites, and be multiplied in the body. It has always been thought to have the peculiarity of being destroyed by extremes of heat or cold; and, as a general rule, this is true.

It can be inoculated, but one attack does not protect from another. When the disease has once appeared, there are but two effective measures that can be taken against it. One is fire, and the other an absolute, or "shot-gun," quarantine. It is one of the few advantages of a despotic government that under it such a quarantine can be enforced. It appears that freemen, however, prefer an epidemic to infringement on their constitutional rights.

But though, when the disease has once appeared, we have no sure prophylactic except isolation, and no certain disinfectant except fire, the habits of life have so changed among civilized nations that the plague which springs from filth and grows upon the distress it causes can never again appear extensively among us. With obedience to the laws of hygiene as a prophylactic, and State medicine as a therapeutic measure, the plague which could once hasten the fall of an empire is now less alarming than the measles. This is surely an indication that we have advanced.

Reports of Societies.

AMERICAN MEDICAL ASSOCIATION.

THIRTIETH ANNUAL MEETING,

Held in the City of Atlanta, Ga., May 6, 7, 8, *and* 9, 1879.

REPORT OF SECTIONS.

(Continued from p. 497.)

SECTION ON SURGERY AND ANATOMY.

DR. MOSES GUNN, of Chicago, Ill., Chairman; DR. J. R. WEIST, of Richmond, Ind., Secretary.

TUESDAY, MAY 6.—FIRST DAY.

The Section was called to order at 3 P.M. by the Chairman.

The Chairman appointed as a sub-committee, to which all papers read before the Section should be referred, Drs. W. T. Briggs, of Nashville, Tenn.; W. W. Dawson, of Cincinnati, Ohio; and W. F. Westmoreland, of Georgia.

ON DEFORMITIES OF THE FACE AND HANDS OCCASIONED BY CICATRICIAL CONTRACTION FOLLOWING A BURN.

DR. A. C. POST, of New York, read a paper upon the above subject, with report of cases successfully treated. The paper was illustrated by means of casts and photographs, and showed one of the great advancements made in surgery. The paper was discussed by Drs. I. N. Quimby, of Jersey City, N. J.; W. T. Briggs, of Nashville, Tenn.; and W. W. Dawson, of Cincinnati, Ohio.

DR. H. O. MARCY, of Massachusetts, then read a paper on

ASPIRATION OF THE KNEE-JOINT.

It contained an account of 68 cases and 118 aspirations. The quantity of fluid removed at each aspiration varied from half an ounce to eight ounces, and was serous, sero-purulent, and sero-sanguinolent. Death occurred in only one case. The best results were derived in acute inflammatory traumatic cases. The operation should be performed early; the joint should be reaspirated as often as fluid accumulated, and followed with an elastic bandage, fixation, and rest.

DR. WM. A. BYRD, of Quincy, Ill., referred to a case in which he had successfully aspirated the knee-joint.

DR. A. C. POST, of New York City, referred to a modified process of aspiration in the treatment of inflammation of the knee-joint. It consisted in drawing off the fluid through an aspirator needle, and then distending the cavity through the same needle with a solution of carbolic acid of the strength of 1 to 30. It was upon the principle of hyperdistention, according to Callender, and Dr. Post was disposed to regard it as an important modification.

———, a delegate, referred to the use of Dr. Martin's elastic bandage after aspiration. So far as his experience went, the results obtained had agreed with those reported by Dr. Martin, and had been very satisfactory. In simple cases of dropsy of the knee-joint, where he had aspirated, and then applied the bandage, there had been no return of the fluid. Of course as much benefit in cases in which the fluid was purulent could not be expected.

DR. S. D. GROSS, of Philadelphia, remarked that he had employed aspiration a few times, not only in the treatment of accumulations of fluid in the knee-joint, but also in other joints, and it seemed to him that aspiration should be regarded simply as an auxiliary measure. In all cases, proper attention should be paid to the general condition of the constitution of the patient; and to the aspiration might be added a variety of means which would tend to bring about a condition that could not be established by aspiration alone. To the aspiration, counter-irritation, elastic compression, etc., could be added, with benefit.

DR. I. N. QUIMBY, of New Jersey, preferred to resort to other means than aspiration in cases in which there was only a small accumulation of fluid in the joint.

DR. MARCY, in closing the discussion, remarked that he heartily indorsed the remarks made by Dr. Gross; but the time allotted for his paper did not permit him to enter upon the general consideration of the subject.

DR. E. B. TURNIPSEED, of Columbia, S. C., then exhibited a *new surgical needle, curved, and spring-clamp at the point; also a new apparatus for treating fracture of the clavicle, with cases; and also described a new method of reducing dislocation of the elbow-joint*, with cases.

The new apparatus for treating fracture of the clavi-

cle consisted in broad leathern collars encircling the shoulders, and united behind by straps from the upper portion of the band, and in front by straps from the lower portion of the collars.

The new method of reducing dislocation of the elbow-joint consisted in standing behind the patient, grasping the arm just above the elbow with one hand with the thumb upon the olecranon process, grasping the wrist with the other hand, and, while extension and counter-extension was being made, to suddenly extend the forearm, and at the same time make pressure upon the olecranon with the thumb.

Dr. S. D. Gross, of Philadelphia, remarked that there was nothing more easy than reduction of a recent dislocation of the elbow-joint. The plan suggested by Dr. Turnipseed was substantially that recommended by Dr. Waterman, of Massachusetts, several years ago.

Dr. J. S. Dodge, of Bristol, Ind., remarked that Dr. Turnipseed's method was the same as that taught by Dr. J. W. Greene at the University of Michigan.

Dr. J. C. Hughes, of Keokuk, Iowa, thought the method of treating fracture of the clavicle suggested by Dr. Turnipseed was no better than several appliances already in the hands of the profession. It was, perhaps, very convenient, but he failed to see its special value. Again, with regard to the suggestion made with reference to reduction of dislocation of the elbow-joint, he thought it did not possess the common sense that did the method by lifting the coronoid process out of the olecranon fossa.

Dr. L. A. Sayre, of New York, thought if the front strap was removed that Dr. Turnipseed's apparatus would be improved. It would then be very much like the old-fashioned figure-of-eight bandage, and no better.

Dr. W. W. Dawson, of Cincinnati, O., remarked that no apparatus had ever been devised which could keep the shoulder *outward*, except by making a lever of the arm, which it was impossible to do practically because of the pressure produced upon the vessels and the nerves. He thought the action of Dr. Turnipseed's apparatus was to bring the points of the shoulders nearer to each other, and therefore necessarily increased the shortening.

Dr. A. C. Post, of New York, thought that the apparatus did not possess any special advantages.

Dr. Glenn, of Nashville, Tenn., referred to an operation performed by the late Dr. Paul F. Eve, of Nashville, for fracture of the clavicle, which consisted in cutting down and wiring the fragments together with silver wire, closing the wound, and leaving it to unite. During the last five years of his life he succeeded in obtaining eminently satisfactory results in many cases

Dr. W. T. Briggs, of Nashville, Tenn., remarked that the cases upon which Dr. Eve operated were those of ununited fracture of the clavicle, and that he merely suggested the operation for simple fracture of the bone.

Dr. Glenn remarked that he knew personally of one case in which Dr. Eve performed the operation for recent fracture, and with good success.

Dr. Turnipseed, in closing the discussion, remarked that the strap in front upon his apparatus was intended simply to keep the collars upon the shoulders.

CHRONIC DISLOCATION AT THE HIP-JOINT.

Dr. C. V. Mothram, of Lawrence, Kan., reported a case of chronic dislocation at the hip-joint.

Dr. W. W. Dawson, of Cincinnati, O., exhibited several specimens of

VESICAL CALCULI,

after which the Section adjourned, to meet on Wednesday, May 7th, at 3 P.M.

WEDNESDAY, MAY 7TH.—SECOND DAY.

The Section was called to order at 3 P.M. by the Chairman.

The minutes of the previous meeting were read and approved.

The first paper was read by Dr. I. N. Quimby, of Jersey City, and entitled

CONSERVATIVE SURGERY.

It consisted essentially of a paper formerly read before the Section at the Annual Meeting, held in Chicago, in 1877, the case at that time being incomplete.

Dr. Lewis A. Sayre, of New York, followed with a supplementary

REPORT ON THE TREATMENT OF POTT'S DISEASE BY MEANS OF THE PLASTER-OF-PARIS JACKET.

The report contained a complete analysis of one hundred and eleven cases, with extended reference to opinions expressed by eminent surgeons both in this country and in Europe.

The paper was discussed by Drs. T. Clay Maddux, of Maryland; A. C. Post, of New York; H. O. Marcy, of Massachusetts; E. H. Dugas, of Georgia; I. N. Quimby, of New Jersey; W. A. Byrd, of Illinois; T. A. McGraw, of Michigan; and closed by Dr. Sayre.

On motion by Dr. Maddux, the thanks of the Section were tendered to Dr. Sayre for his valuable report.

AMPUTATION BY OPEN CONE-SHAPE METHOD.

Dr. J. E. Link, of Terre Haute, Ind., read a paper upon the above subject, in which he claimed as advantages a better shaped stump and better results than by any other method; and also claimed that it was a method which originated with himself, and had not been adopted by any other surgeon.

Dr. W. F. Peck, of Davenport, Iowa, remarked that he had seen the same operation performed in Bellevue Hospital, New York, long ago, by Dr. James R. Wood.

The paper was discussed by Drs. Beck, of Ohio; Marcy, of Massachusetts; Byrd, of Illinois; Quimby, of New Jersey; Garcelon, of Maine; Fuller, of Maine; and closed by Dr. Link.

URINARY CALCULUS WITH CONSIDERATION OF ITS HYGIENIC, ETIOLOGICAL, PATHOLOGICAL, AND SURGICAL RELATIONS—WITH FORTY-SIX CASES,

was the title of a paper read by

Dr. H. F. Campbell, of Augusta, Georgia.

The bilateral method was the one employed in all the operations.

The paper was discussed by Drs. Dawson and Mussey, of Cincinnati, O., and Dowell, of Texas.

The Section then adjourned, to meet at 3 P.M. Thursday, May 8th.

THURSDAY, MAY 8th.—THIRD DAY.

The Section was called to order at 3 P.M., by the Chairman.

The minutes of the previous meeting were read and approved.

ÉCRASEUR FOR REMOVAL OF UTERINE TUMORS.

A paper by Dr. William Scott, upon the above subject, was presented by the Secretary.

TREATMENT OF HEMORRHOIDAL TUMORS BY CARBOLIC ACID INJECTION,

was the title of a paper read by Dr. J. R. Weist, of Richmond, Ind., Secretary of the Section. Dr. Weist called attention to that method of treating hemorrhoidal tumors, believing that it was superior to any yet employed. The theoretical objections that had been raised against it were the occurrence of thrombosis and embolism. By a series of experiments, Dr. Weist had reached the conclusion that carbolic acid had almost no coagulable power upon blood within veins. A clear idea of the method and the substance of Dr. Weist's paper, aside from that mentioned, can be obtained by reference to vol. xv., p. 451, of the Medical Record.

Dr. A. C. Post, of New York, referred to Salmon's method, commonly known as Allingham's method, which had been performed many hundreds of times with almost uniform success in the practice of surgeons in this country, and regarded it as probably the most certain and the most safe mode of treatment at our command.

Dr. W. A. Byrd, of Illinois, referred to dilatation of the sphincter by the closed hand so as to allow the pile above to get well at the same time with the cure of the ruptured sphincter.

Dr. W. W. Dawson, of Ohio, remarked that his surgical operations for piles had been uniformly successful. He used the knife for the external, the ligature for the internal pile, and he had not yet had an accident follow the patient. He thought one secret of success was *positive* strangulation of the pile. He had not found it necessary to paralyze the sphincter before the operation. With regard to the new method, if experiments proved that there was no danger from embolism, it might be a good method.

Dr. J. W. Murphy, of St. Paul, Minn., referred to *twenty* cases which he had treated by the use of carbolic acid injections, and with good results in all.

Dr. H. W. Brown, of Texas, remarked that he had been using the new method in preference to either the ligature or the knife. He used the carbolic acid as nearly pure as possible, simply diluting it with a small quantity of alcohol, and he threw only a few drops into each tumor.

Dr. E. Smith, of Detroit, Mich., referred to treatment of piles by transfixing the tumor with a hot iron.

Dr. A. B. Cook, of Louisville, Ky., referred to his successful treatment of hemorrhoids by means of carbolic acid injections, and the form in which he ordinarily used it was one-half carbolic acid, one-fourth glycerine, and one-fourth distilled water. The solution with glycerine should be perfectly clear; if not so it was evidence that the acid was impure, and should not be used. He emphasized the importance of introducing the point of the needle *into* the cavity of the tumor, thus avoiding the sloughing which would follow injection of the cellular tissue.

Dr. Dawson emphasized the non-use of the knife in the treatment of internal piles, and thought that for the removal of old hemorrhoidal tumors something more radical than injections was required.

Dr. A. C. Post thought that no *good* surgeon, at the present time, used the knife in the treatment of internal piles.

The next paper was read by Dr. T. Clay Maddux, of Maryland,

ON THE NATURE OF GONORRHŒA,

and was referred without discussion.

PERITYPHLITIC ABSCESS OPENING INTO THE BLADDER AND THE RECTUM, WITH PATHOLOGICAL SPECIMEN.

Dr. Thos. F. Rochester, of Buffalo, N. Y., presented a pathological specimen of typhlitic abscess opening into the bladder and the rectum, with its clinical history. Of perityphlitic abscess he had had twenty-three cases, and in nearly all he had obtained an autopsy. It was usually excited by disease in the vermiform appendix. The foreign bodies which were found, and so frequently called grape-seeds, fæcal calculi, etc., were in very many instances *gallstones*. In the case reported, the foreign body was originally a gallstone, as shown by analysis. The abscess opened into the bladder and the rectum, and the case was of about three years' duration. The patient asked for an operation, and the propriety of granting his request was fully recognized at post-mortem.

Dr. A. M. Pollock, of Pittsburg, Pa., exhibited and described

A NEW INSTRUMENT FOR THE ADMINISTRATION OF ANÆSTHETICS.

It consists of a spiral cylinder open at both ends so as to freely admit atmospheric air. The specimen exhibited was about 8 inches in length by 4½ inches in diameter, and was made of a simple brass wire coiled spirally. The cylinder was to be enveloped by a towel. Its advantages were economy, cleanliness, and safety.

The Section then adjourned. After the adjournment, Dr. Sayre, at the request of the Section, applied the plaster-of-Paris jacket to two cases of Pott's disease, for the purpose of giving the members a practical demonstration of the method of treatment.

SECTION ON STATE MEDICINE, PUBLIC HYGIENE, MEDICAL JURISPRUDENCE, CHEMISTRY, AND PSYCHOLOGY.

Dr. John S. Billings, of Washington, D. C., Chairman.

Dr. J. T. Reeve, of Appleton, Wis., Secretary.

Tuesday, May 6th.—First Day.

The Section was called to order at 3 P.M., by the Secretary, who announced that owing to the temporary illness of Dr. Billings, it was necessary to elect a chairman *pro tem.* On motion, Dr. J. L. Cabell, of Charlottesville, Va., was elected Chairman.

Dr. A. N. Bell, of New York, announced the death of Dr. Wm. N. Compton, the former Chairman of the Section on Medical Jurisprudence.

Dr. E. Grissom, of North Carolina, paid an eloquent tribute to the memory of Dr. Compton, who died while in the service in the late epidemic of yellow fever. The Chairman appointed Drs. E. Grissom, of North Carolina, J. M. Toner, of the District of Columbia, and F. Pratt, of Michigan, a committee to draft suitable resolutions and present them to the Association in General Session.

THE REGULATION OF MEDICAL PRACTICE BY STATE BOARDS OF HEALTH, AS EXEMPLIFIED IN ILLINOIS,

was the title of a paper read by Dr. H. A. Johnson, of Chicago, Ill.

The paper was a full exposition of the thorough reform effected under the provisions of the new law.

Dr. J. H. Rauch, of Chicago, spoke of the success of the present system of regulating medical practice, and the good it had accomplished for the people gen-

erally, as well as for the profession in elevating its grade.

Dr. Gihon, of the United States Army, believed in the thorough regulation of the practice of medicine by the State, in such a manner as to prevent quacks from imposing upon the public, simply because they could show a diploma.

The discussion was prolonged at considerable length.

STATE MEDICAL SOCIETIES AND STATE MEDICINE.

Dr. S. E. Chaillé, of New Orleans, La., read a paper upon the above subject, which, on motion by Dr. Bell, of New York, was referred to the Association in General Session. [See report of General Session, for Thursday, May 8.]

PSYCHO-PHYSIOLOGICAL HAND,

was the title of a paper read by Dr. E. Seguin, of New York City.

The theory of the paper was that, in cases of idiots, all education of intellect must begin by education of the senses. An interesting case was related.

The Section then adjourned, to meet on Wednesday, May 7th, at 3 P.M.

Wednesday, May 7th.—Second Day.

The Section was called to order at 3 P.M. by the Chairman.

Dr. E. Grissom, of North Carolina, read a fitting memorial on the death of Dr. Wm. H. Compton, of Mississippi.

The resolutions accompanying it were seconded by Drs. Taylor, of Kentucky, and Browning, of Mississippi.

THE NEW PRINCIPLES OF PROTECTIVE (PRIVATE) SANITATION IN ITS RELATION TO PUBLIC HYGIENE,

was the title of a paper sent by Dr. H. R. Storer, of Newport, R. I., and read by Dr. E. S. Dunster, of Michigan.

The paper was referred to the Committee on Publication.

REPORT ON INTERVENTION OF PHYSICIANS IN EDUCATION.

Dr. E. Seguin, of New York, made some remarks upon the above subject.

On motion, the address of the Chairman was referred to the Committee on Publication.

Resolutions relating to the next census and the organization of the profession in all the States were then offered and adopted, and the Section adjourned, to meet on Thursday, May 8th, at 3 P.M.

Thursday, May 8th.—Third Day.

The Section was called to order at 3 P.M. by Dr. J. F. Hibbard, of Indiana, the Chairman-elect.

Dr. S. E. Chaillé, of New Orleans, La., presented resolutions looking toward the appointment of a committee on medical organization. The report was adopted. [See minutes of General Session for Friday, May 9th.]

THE MEDICAL EXAMINER SYSTEM OF MASSACHUSETTS,

was the title of a paper read by Dr. F. A. Harris, of Massachusetts. It was referred to the Committee on Publication.

The Report of Dr. Billings, Chairman of the Committee on the question of hospitals, was read. It was accompanied by diagrams and lithographic illustrations of hospitals for small towns, on approved plans. It was referred to the Committee on Publication, with instructions to consult with Dr. Billings with reference to the manner of publication.

Dr. Alban S. Payne, of Virginia, presented a paper on

THE TREATMENT OF SMALL-POX IN THE STAGE OF INITIAL FEVER,

after which the Section adjourned.

SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

Dr. Hermann Knapp, of New York City, Chairman.
Dr. A. W. Calhoun, of Atlanta, Ga., Secretary.

Tuesday, May 6th.—First Day.

The Section was called to order at 3 P.M. by the Chairman.

Dr. E. Williams, of Cincinnati, was elected Honorary Chairman, and Dr. B. A. Pope, of New York, Vice-President.

IVORY EXOSTOSIS OF THE ORBIT.

Dr. E. Williams, of Ohio, read a paper upon the above subject, which consisted mainly in the history of a case. In future he would attempt to remove the exostosis without removing the eyeball.

IMPAIRMENT OF SIGHT PRODUCED BY EXCESSIVE DOSES OF QUININE.

Dr. O. H. Voorhees, of Memphis, Tenn., read a paper upon the above subject, and referred to cases.

Dr. H. Knapp, of New York, then gave

DEMONSTRATIONS OF ANATOMICAL AND MICROSCOPICAL SPECIMENS, AND OF INSTRUMENTS AND APPARATUS.

SYPHILITIC DISEASES OF THE CORNEA.

A prolonged discussion upon the above subject was held, after which the Section adjourned, to meet on Wednesday, May 7th, at 9 A.M.

Wednesday, May 7th—Second Day.

The Section was called to order at 9 A.M. by the Chairman.

CATARACT.

Drs. B. A. Pope, of New York, A. W. Calhoun, of Georgia, and H. Knapp read papers on cataract extraction, and a general discussion followed, which was participated in by a large number of members.

The Section, at 11 A.M., adjourned, to meet at 3 P.M.

At 3 P.M. the Section was called to order by the Chairman.

The discussion of the subject of cataract extraction was continued.

AN OPERATION FOR THE CURE OF CYSTOID CICATRIX,

was the title of a paper read by Dr. D. S. Reynolds, of Louisville, Ky. In the proposed operation a thread was passed through the cornea; and the author stated that he had never seen keratitis follow the operation.

CURE OF XEROPHTHALMIA BY OPERATION.

Dr. Eugene Smith, of Detroit, Mich., read a paper upon the above subject. The result of the operation was permanent union of the ball and the lids.

Dr. Knapp, of New York, presented *pathological specimens*. One, a case of plastic cyclitis; the other

a ciliary body containing a chip of brass. A brief clinical history was given with the specimens. The Section then adjourned, to meet on Thursday, May 8th, at 9 A.M.

THURSDAY, MAY 8TH.—THIRD DAY.

The Section was called to order at 9 A.M. by the Chairman.

The Chairman read a paper

ON DISEASE OF THE MASTOID PROCESS.

The paper gave rise to prolonged discussion, which was participated in by Drs. Leartus Conner, of Detroit, Mich.; B. A. Pope, of New York; E. Williams, of Cincinnati, Ohio; A. W. Calhoun, of Atlanta, Ga.; E. Smith, of Detroit, Mich.; and A. H. Voorhees, of Memphis, Tenn.

There being no further business before the Section, it adjourned.

STATE MEDICAL SOCIETY OF ILLINOIS.

(Special report for THE MEDICAL RECORD.)

TUESDAY, MAY 20, 1879.—FIRST DAY.

THE Illinois State Medical Society was called to order in Gillett's Opera House, Lincoln, Ill., at 10.30 A.M., May 20, 1879, by the President, DR. E. P. COOK, of Mendota.

The Society was welcomed to the city of Lincoln with a very cordial address delivered by T. T. BEACH, ESQ.

DR. E. INGALS, of Chicago, replied in behalf of the Society, in a manner which called forth unanimous applause.

After adopting the order of business for the meeting, the Society listened to the

ADDRESS OF THE PRESIDENT.

The paper covered a wide variety of topics, chief among which were discussions of the importance of sanitary science and State medicine, the adoption of the metrical system, and the ever-pressing subject of advance in medical education. While enforcing the importance of continual progress in all that can elevate the qualifications and standing of the profession, the orator refrained from insisting upon the adoption of any special measures for the accomplishment of these ends, other than those which the wisdom of those charged with the instruction and guidance of the public inside and outside of the ranks of medicine might devise.

AFTERNOON SESSION.

The business of the afternoon session was commenced with a paper by DR. D. PRINCE, of Jacksonville, on

THE SANITATION OF SMALL CITIES —A RECOMMENDATION OF TILE-DRAINING AND SEWERAGE.

PROF. OWENS, of Chicago, read the *Report of the Committee on Surgery*, consisting of a review of recent opinions regarding the treatment of hemorrhoids, furuncles, atony of the bladder, dislocation of the clavicle, Annandale's operation for the removal of tumors from the nasal passages, the antiseptic property of thymol, treatment of nævus, Hebra's method of dealing with rodent ulcer of the skin, Dupuytren's finger contraction, Callender's treatment of wounds without carbolic spray, surgical pathology of nerves, skeletal measurements, a suit for malpractice in the treatment of a fractured thigh.

The paper was discussed by PROF. E. ANDREWS, who called the attention of the Society to the long recognized fact of the asymmetry of the human skeleton, to the value of ergot in enlargements of the prostate, to the treatment of lupus by scraping—he was in favor of the operation—the finger-nail forming the best instrument. The paper was further discussed by

DR. HALKER, who recommended the treatment of hemorrhoids by injection with liq. ferri persulph. He related a case of nævus on the breast of a young girl, also treated in the same way with success.

DR. PRINCE recommended the treatment of lupus by galvanic cautery. He preferred the same method for hemorrhoids.

PROF. HOLLISTER spoke of the histological changes which cause lupoid growths, and thought that removal of the entire morbid growth was necessary to success.

DR. C. TRUESDELL, of Rock Island, then read a paper on the

TREATMENT OF FRACTURES OF THE FEMUR,

taking issue with the doctrine that such fractures must necessarily result in shortening.

DR. PRINCE thought that equally good results might be obtained with almost any of the ordinary modes of treatment of these fractures.

DR. GILL did not believe in the need of perfect coaptation of the extremities of the fractured bone when the dressing is applied.

REPORT OF THE COMMITTEE ON OBSTETRICS.

DR. C. C. HUNT, of Dixon, presented the report of the Committee on Obstetrics—to the effect that little that was new had appeared in the literature of the subject during the past year. He, therefore, related his favorable experience of the use of hot-water injections in uterine hemorrhage.

DR. INGALS recommended that the injection be thrown into the uterus instead of against the cervix.

REPORT OF THE COMMITTEE ON OPHTHALMOLOGY.

The report of the Committee on Ophthalmology and Otology was read by PROF. S. J. JONES, of Chicago.

STATE MEDICINE.

PROF. LYMAN, of Chicago, read a paper on State Medicine, taking the ground that the ordinary duties of sanitary officials should be restricted to the public places and relations of a community, and that the private life of citizens should not be disturbed by the intermeddling of such officers.

WEDNESDAY, MAY 21, 1879.—SECOND DAY.

Committee on Nominations: A committee on nominations, consisting of one member from each county represented in the Society, was elected.

A committee of three was appointed by the President to recommend action by the Society relative to the passage of the bill now before the Legislature regulating the commitment of the *Insane to Asylums.*

This bill abolishes, in certain cases, a trial court for the commitment of the insane; indeed, in all cases except where such trial is demanded by the patient.

REPORT OF COMMITTEE ON PRACTICAL MEDICINE.

The Report of the Committee on Practical Medicine was presented by the Chairman, DR. G. W. JONES, of Danville. The paper was a well-written and vivacious summary of the diseases and the therapeutical

measures with which general practitioners are most familiar. The reporter adopted in full the "germ theory."

CHLORAL AND THE BROMIDES IN OBSTETRICS.

Dr. Norred, of Lincoln, presented a paper on the use of these articles in obstetric practice, recommending them highly as a means of overcoming unpleasant nervous symptoms in such cases.

MEDICAL EDUCATION.

Dr. E. Ingals, of Chicago, read a report on medical education, urging the limitation of medical charities, and an elevation of the standard of education, so as to reduce the number of practitioners and increase the emoluments of the profession. The writer advised a diminution of the number of the colleges, and their government by strong boards of trustees separate from the faculties, which should consist of numerous professors, well paid by funds secured by endowment, rather than by the fees derived from students, so that they might be independent of all desire to increase the number of students. The period of instruction should be not less than three years, with terms of nine months each. Graduates should be twenty-five years of age, and should have a good English education. The final examination should be held by boards of examiners, independent of the colleges, to be appointed, perhaps, by the State medical societies. A graded course of instruction was advised by the writer.

Prof. Andrews, of Chicago, read a paper entitled

"THE CHIROPODISTS."

According to the doctor, the corn-doctors were improving in skill and respectability in such a way as to promise the final establishment of a specialty as distinct as that of dentistry.

Prof. Holmes, of Chicago, read a paper on

TRICHIASIS.

The usual cause of that disease was chronic conjunctivitis, especially that form which produces contraction of the cartilages of the lids, stimulating the latent hair-follicles of the part. Sometimes the disease was caused by absorption of the inner margin of the lid, bringing its hairy border against the cornea. That, however, was not to be considered true trichiasis. The opinion of the writer was to the effect that simple removal of a portion of the integument of the lid would seldom result in relief of the difficulty. A very good operation consisted in splitting the lid into two flaps—the anterior, containing the integument, with its hair follicles, and the muscles of the lid. The anterior flap might then be moved upward on the posterior flap.

Dr. Hotz, of Chicago, had practised the method of making an incision parallel to the tarsal margin of the lid down to the cartilage, and then stitching the margin of the wound to the cartilage in such a way as to evert the cartilage. That often gave good results.

Prof. Jones, of Chicago, followed with some remarks upon the conjunctivitis which was caused by trichiasis, advocating the use of topical medication in these cases, instead of adopting operative measures, except as a last resort.

AFTERNOON SESSION.

The *Report on Gynæcology* was presented by the Chairman of the Committee on Gynæcology, Prof. Fitch, of Chicago. The paper was a summary of the most recent opinions regarding the surgical treatment of lacerations of the cervix uteri. The author gave a full description of his own favorite method of operation, with notes of illustrative cases.

Prof. Fitch also exhibited a convenient apparatus for vaginal injections, devised by Dr. Lord of Plano, consisting in a modification of the fountain syringe and bed-pan.

REPORT ON NECROLOGY.

The Chairman of the Committee on Necrology, Dr. Worrell, of Bloomington, announced that owing to an accident his manuscript had been left at home. He desired to have the report passed, with permission to insert it in the Transactions of the Society. The request was granted.

Mrs. Prof. Stevenson, of the Woman's Medical College, Chicago, read a very interesting paper on

THE PHYSIOLOGY AND PATHOLOGY OF THE SYMPATHETIC NERVOUS SYSTEM.

The report was too much condensed to admit of any abstraction, and was a model of what may be done in the way of the application of physiological knowledge to the problems presented in the diagnosis and treatment of disease.

Prof. Jewell followed with remarks on the anatomical relations of the sympathetic nervous system.

Prof. Lyman called attention to the importance of addressing remedies to the nervous system in the nervous disturbances of diseases not primarily connected with that system.

TRACHEOTOMY IN CROUP.

Dr. H. Z. Gill, of Jerseyville, read a paper on Tracheotomy in Croup, in which he gave all the accessible statistics of the operation as performed during the past year in the State of Illinois. It was illustrated by the exhibition of colored anatomical plates, and of the instruments used in the operation.

BILLS OF PHYSICIANS—EXPERT EVIDENCE.

The Secretary read a report from a committee to which, at the last meeting, was referred a communication from the Centennial Medical Society of Southern Illinois, calling upon the State Medical Society to take action looking to such change in the laws of the State as shall give the bills of physicians in case of last illness equal preference with the most favored claims against the estate of the deceased. Also to make provision for the adequate compensation of physicians who are compelled to make investigations and to testify in courts of law as experts. The committee presented a collection of legal decisions relative to the matter of testimony—notably the opinions of the Supreme Courts of Alabama and Indiana—and recommended that members of the medical profession should insist upon their rights in such cases whenever they occurred. The committee also recommended that a standing committee should present an annual report of all cases in which such claims might be adjuicated by the courts. As for matter of the last services in case of death, the committee recommended that the profession should use its individual influence with members of the Legislature to secure the necessary legislation.

The Treasurer, Prof. Hollister, presented his report, indicating a very healthy condition of the finances of the Society. The announcement of a balance of $239 in the treasury was received with great applause.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations reported the following: For *President*, E. Ingals, M.D., of Chicago; for *First Vice-President*, G. W. Jones, M.D., of Danville; for *Second Vice-President*, C. C. Hunt, M.D., of Dixon; for *Treasurer*, J. H. Hollister, M.D., of Chicago; for *Assistant Secretary*, Washington West, M.D., of Belleville. Place of meeting for next year, Belleville, Ill.

A full list of committees was also reported. The recommendations of the Nominating Committee were unanimously adopted by the Society.

EVENING SESSION.

DR. N. S. DAVIS, of Chicago, gave an interesting lecture of a semi-professional character, chiefly devoted to the relation of the profession to the community.

EXECUTIVE SESSION.

The Society then went into executive session. The Secretary read a series of resolutions prepared by Dr. Ingals to the effect that the Society request all regular medical colleges to institute preliminary examinations of students—six months terms of lectures, by the regular faculty, and that students be required to study five years before graduating. The resolutions were all adopted.

The Society then proceeded to nominate delegates to the American Medical Association, to the State Medical Societies of Indiana, Kentucky, Missouri, Iowa, Wisconsin, and Michigan.

The Chairman appointed Drs. Lyman, Rauch and Nesbitt a committee to draft a bill regulating the hygiene of school-houses, to report at the next meeting.

DR. WORRALL, of Bloomington, was appointed to report at the same meeting on the antagonism between malaria and phthisis.

A vote of thanks to the citizens of Lincoln and to Dr. Wilbur, of the Asylum for Feeble-minded Children, for their hospitalities to the members of the Society, was passed.

The President-elect, Dr. Ingals, was then introduced by the retiring President, Dr. E. P. Cook.

The Society then adjourned.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Special Meeting, April 14, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

THE RESPONSIBILITY OF THE MEDICAL PROFESSION FOR THE ABUSES OF MEDICAL SERVICES.

AT a stated meeting, held March 24, 1879, DR. F. R. STURGIS, house-physician at the New York Dispensary, read a paper upon the above subject, which was made the special order for April 14, 1879. The discussion was opened by Dr. Sturgis, who stated that the motives he had in view in bringing the subject before the profession were *twofold*. 1. The paper was intended as a purely medical address to medical men, calling their attention to the responsibilities which fall upon them for the abuses of medical charity; to show that trustees of dispensaries and the State Board of Charities had been interested in this subject; to show that there was a proposition to check, to a certain extent, the abuses which existed; to express the opinion that if proper authority was vested in the house-physician the greater portion of the abuses could be checked; but to carry the plan into operation the co-operation of the attending physicians and surgeons was required. Some attending physicians and surgeons had objected to any special plan which looked toward the correction of abuses, and had said that so long as they had cases they did not care whether they were suitable persons for charity or not. If that feeling were general there would be no earthly use in calling attention to abuses of medical charity. But he hoped and believed that the medical profession were sufficiently alive to the fact that in their positions they were, to a certain extent, trustees, and were responsible for the abuses. 2. He hoped that this abuse could be corrected. It could not be done at once; time was required. Certain impressions must be corrected; and to do that, public opinion must be educated upon certain points. Many of the people were under the impression that the physicians were obliged to give them medical advice simply because they asked for it. In order to check abuses, concerted medical action was necessary. He thought it proper that the Medical Board of Dispensaries should have communication with the Board of Trustees, perhaps through the house-physician. The propositions he had laid down in the paper were suggestive rather than any particular plan. He believed that the subject should not be considered so much from a charitable point of view as from a politico-economical standpoint. He also thought that the charity-wheel was overridden to a very great extent, and that the sooner a large percentage of medical charity was swept away the better it would be for a correct understanding of the subject.

DR. O'SULLIVAN believed there was something wrong with the profession in this matter. There had been neglect, indifference, if you wish, to the entire subject. Why was it that the agitation of such questions was left almost entirely to a few? In that particular, physicians as a body were at fault, and failed to energetically push the question. The correction of the abuse must be reached through public opinion. The influence of prominent citizens should be secured; and if a united profession would grapple the subject, he had no doubt that success would be obtained.

DR. H. D. NOYES remarked that the practical points which Dr. Sturgis had brought to our notice in his paper were twofold: 1. The relation existing between the managing boards of public charitable institutions and the medical profession; and, 2. What measures could be adopted to prevent the unworthy from demanding charity in our public medical institutions. Upon the first question we were a few years ago thrown into great excitement by certain occurrences in the Presbyterian Hospital in this city; and the profession then arose in indignation. His own experience in connection with the management of public charitable medical institutions had been such as to lead him to have great respect for the managing boards. He had found that when they were approached in a proper manner, and reasonable propositions were laid before them, they were quite as ready to treat them with consideration as any other class of citizens. In the Eye and Ear Infirmary, an institution with which he had been connected for several years, when it was found that the management was becoming loose, a proposition was made that one of the medical staff should be selected to largely control the management of the institution with reference to the admission of patients. That office was created, and its functions had been carried out during the past five years with admirable results.

No reasonable request made by the medical man had been rejected by the general board of management. There was no doubt that a considerable number of persons who came were totally unworthy of charity, and were able to pay a certain amount of compensation. That was largely due to a faulty public opinion. It was largely a simple outcry of greed, an effort to save at the expense of some one else. It had perhaps also arisen from carelessness upon the part of medical men who attended in these institutions. That such was the case must be admitted; but he asserted that medical men, so far as his knowledge extended, had for years and years strenuously and persistently attempted to eliminate the persons who had no business to come there for medical advice. During the past year extra efforts had been made to keep from the Eye and Ear Infirmary those who did not belong there. Another observation: The medical profession was responsible for abuses in our public institutions in a sense to which allusion had not been made. A great many medical men said thoughtlessly to patients who gave them a little perplexity, "Go to a dispensary." He was unable to state how many times it had occurred to him to hear patients say, "Doctor So-and-so told me to come here." Such abuse was widespread, not only in the city, but throughout the country. While ready to give his services to those deserving of charity, he felt that a very great portion of the abuse of medical charity came from want of consideration upon the part of some physicians, and a desire to get rid of the case by sending it to a dispensary. He thought something like a "board of detection" was necessary in all public medical charitable institutions, in order to correct the abuses and prevent the admission of improper patients. The real remedy existed in the discovery of the facts relating to the financial condition of the applicant, but how they were to be always discovered he was unable to say. Another thought: Every physician in New York treated in his office a very large number of poor patients; but he was sorry to say that, while physicians were usually willing enough to treat people gratuitously, they were too often ashamed to accept a small fee. He believed that much of our difficulty regarding the abuse of medical charity would be obviated if those in high places, as well as those who did not have large incomes, were willing to accept small fees for their advice and treatment.

Dr. H. E. Crampton remarked that until the hospitals and dispensaries could agree upon some definite plan of the management of medical charity we should not arrive at any satisfactory conclusion. He suggested that the simplest plan would be to have a salaried officer, paid by the institution for the district which he inspected, who should visit houses and receive applicants for medical charity, and that only those who came to the dispensary endorsed by such inspector should receive advice and medicine. In that manner all outsiders would be cut off, and all frauds would be more liable to be exposed. It would be a step toward the provident plan.

Dr. Henry remarked that the subject under discussion involved the question whether young men should have the opportunity to live by their profession or not, and also whether there should be any progress in medicine, because the work necessary to such progress must be done by the young men. His impression, based upon nine years' dispensary experience, was that the abuses were, to a great extent, due to physicians themselves, and a willingness on their part to do the work without compensation. He also thought the Boards of Trustees were considerably to blame. He decried appropriation of a single dollar of money to any but thoroughly organized dispensaries wherein medical officers had prominent places. If the profession would discountenance special dispensaries, and centre its influence upon the old and established institutions, the evil complained of could to a great extent be reached.

Dr. Henry then commented at some length upon the "outside affair" at the New York Hospital, and characterized it as the "biggest of humbugs," and an establishment erected "to elevate a few at the expense of many." If it was desired to reach the full inside history of the affair, ask the doctors of the New York Hospital, and "they would *not* answer;" "they were afraid of the influence of the trustees." It was only by having regular institutions, well endowed, and a fair representation of bold, good doctors in the Board of Management, that we should ever have them properly administered.

Dr. C. R. Agnew remarked that the subject was one which must be carefully discussed in order to bring out the general principles involved, and so carry the feeling of the Society, and of the profession in every thoughtful, earnest, and non-selfish effort to correct what was certainly, in the language of the paper, "an abuse." It was not a new abuse, but was one which had floated down the stream of charity ever since attempts had been made by one man to aid his fellow-man who happened to be in a dependent position. The abuse of medical charity had grown, in a great measure, from: 1, the immense burden of pauperism cast upon us; and, 2, the great activity created in the study of medicine within the last twenty-five years, the latter bringing in vast numbers of men who were willing to serve in public institutions in order that they might have improved opportunities to acquire experience.

Dr. Agnew thought that if a move was made in the County Medical Society, simply with the view of securing "bread and butter" for ourselves, we should do injustice to ourselves, and should not accomplish the reform desired. He was sure that by such action our professional brethren would not be the beneficiaries. Success in obtaining a livelihood depended upon certain questions of political economy, and would be settled without much interference upon our part. As many would get a living as the market could afford, and no more. It was our duty to study the question so broadly as to cleanse the market, so to speak, and give the laborer a just opportunity. He thought that could be done by bringing those who were responsible for our medical charities to consider the subject in a thoughtful and scientific manner. He believed that ignorance was at the bottom of the abuse, and that, in general, the managers of charitable institutions were ignorant of the literature of pauperism. One of the first things to be done to correct the abuse of medical charity was *not* to give medical advice, or medicine, or lodging in a hospital bed to an individual who was financially capable of being attended to, and receiving benefit anywhere else. He believed that that principle should obtain in every department of charity, medical or otherwise. Nothing should be given to a poor man for which, if capable, he did not give some equivalent. The same principle should equally obtain in endowed hospitals. There was great danger to the cause of true charity from endowed hospitals. He believed that the door of every hospital or dispensary should be guarded by a cautious, lynx-eyed verger, who should approach the applicant with the spirit of a brother, and carefully uncover his financial condition. Then

the professional brother outside would obtain the benefit arising from the patronage of those who were unworthy of charitable aid. It could not be done by stamping our feet and attempting to coerce them, but by a scientific, painstaking, and patient method. It must be shown to them that there were certain principles upon which medical charity could be conducted without injury to the beneficiaries. That exceptional abuses would occur was inevitable; and they would continue to take place to the end of time. So long as men were in hospitals and dispensaries who were not experts, there would be persons who would studiously and consecutively lie to gain admission. He was entirely opposed to the principle of raising money, by excise or any other method, for medical charity in the city of New York. He thought it would not be persisted in when our institutions were more studiously managed with reference to the real necessities of their beneficiaries.

With reference to corporate dispensaries, it was, perhaps, an idea to be entertained; but he was quite sure if the members of the society could be induced to read the literature of the treatment of preventable pauperism, and the doctors in the dispensaries could be made to do the same thing, many of the abuses would disappear. The right kind of a man at the door of these institutions would be followed by an immense correction, for he believed there was as much veracity south-east of Tompkins Square as there was north-west of Madison Square.

Dr. E. S. Bates believed that, in a great measure, too much charity was a curse rather than a blessing. He also believed that the physician should be compensated for his services in these institutions, the same as was the baker, the butcher, or the nurse, and that by serving without compensation the physician demeaned his profession, and contributed directly to the increase of crime and pauperism. A foundling asylum had been built to prevent infanticide, but the increase of illegitimate children in the city had been very great since it was established, and children found their way there from all parts of the country. For the abuse of medical charity, he believed medical men alone were responsible. If they would demand even a very small fee for their services, many of the institutions could not survive a single day—a result which was a desirable one. By continuing to give service gratuitously to these institutions, the medical men were encouraging pauperism and not relieving poverty. The poor we always had with us, and every honorable medical man was willing to do all in his power to alleviate their physical sufferings; but as medical men we should not continue to do those things which would make us all poor. Although it might not be possible to remove all the abuses, we might, perhaps, correct the medical.

Dr. H. G. Piffard raised the questions, What *should* we do to correct the present abuse of medical charity; and what *could* we do to bring about the desired result? To the co-operative plan suggested by Dr. Sturgis he objected, on the ground that it would give rise to institutions among men who were not indisposed to receive small fees, and would take business away from those who would be glad to render service for small fees, and the result would be, that the class of physicians just above must starve, or enter directly into the same competition. In other words, the greater portion of the younger physicians who had no capital to live upon, would be obliged to have their own private dispensaries.

The County Medical Societies possessed no power to prevent the formation of dispensaries. According to the general law of 1848, any five citizens could organize a charitable institution.

He also thought that by exacting any fee for service or medicine, the dispensaries violated their charter. The tendency, also, of the small-fee system, was to invite patients to go to these institutions, who should go to physicians who were willing to prescribe for a small compensation. If any reform came, it must be by the united action of the medical profession. The suggestion made by Dr. Bates, that dispensary physicians should be paid for their services, was a desirable one, perhaps, but he thought the trustees of dispensaries would not consider the proposition for a moment, when they knew there were hundreds of physicians who were clamoring for the positions, and were willing to work for nothing. Not until every member of the profession would unite in saying that he would not serve without pay, could the rendering of gratuitous services be prevented. He favored the adoption of some system of inspection of applicants as recommended by Dr. Agnew. He also believed that the State should provide for its paupers as it provided for its criminals, and thought that if the dispensaries were under the management of the State, they would be productive of better results than at present were obtained. Dr. Piffard raised the question whether those physicians who held positions in dispensaries were not violating the code of medical ethics by advertising that they would prescribe for the poor gratuitously at stated times.

Many of the positions in the dispensaries were held by members of the profession in good standing who were *not* members of the County Medical Society. If any action was taken by the Society, it must reach its members. If such action affected positions in dispensaries, the society would be injuring its own members for the benefit of those who were regular members of the profession, yet *not* members of the County Medical Society. When all members in good standing in the profession were members of the County Medical Society, some action might be taken by which the entire profession could be governed; as it was, but little could be done. With reference to the New York Hospital Dispensary, the managers knew that it was detrimental to the profession. It was pretty well known that it was concocted to injure the profession, and yet there were men in the profession who assisted the managers in carrying their scheme into operation.

Mr. Humber, a member of the Board of Trustees of Demilt Dispensary, remarked that what had been said contained truth upon all sides. For his own part he did not believe he was fulfilling his trust in making a charge, however small, to poor people, although his dispensary had adopted the plan. He believed when it was found that some money could be made by charging *ten* cents, consciences would become seared, there would be a yielding to the temptation, and the charge would be gradually increased. He believed that they were violating their charters by introducing the small-fee system, and certainly he was violating his conscience. The ten-cent plan had proved one thing, namely, that it would reduce the attendance of patients. To the mere fact of reducing the number of prescriptions he did not object, but that the plan diminished the attendance of the undoubtedly poor very greatly, must be conceded, else the institutions had been a lie from the commencement. He had made it a personal matter to see that no person went out of Demilt Dispensary without medicine who was not able to pay, and yet the easy application of the penalty had greatly reduced the number in atten-

dance of the *actual* poor, and it would soon be found that merely a provident dispensary remained.

Dr. Willard Parker thought the bottom of the subject had not been touched by anything which had been said. He hoped to be able to participate in the discussion on a future occasion.

Dr. Zinzler suggested a legal enactment making it a misdemeanor to obtain medical charity under false pretences.

Dr. Sturgis thought that the really needy poor represented only a small proportion of those who visited dispensaries, and doubted if very many real poor patients were turned away by the adoption of the plan of paying ten cents. The object of the plan was to check the sturdy beggar and drunken vagrant from receiving the same benefit as the working widow obtained. It would reduce the number of patients, but that could not be avoided. He also stated that the question had been studied, and it had been decided that the charter was not violated by adopting the plan. He thought that *three* dispensaries could meet the wants of all the needy sick poor in the city.

Dr. Beverley Robinson remarked that there were at one time some regulations governing the admission of patients to the New York Hospital Dispensary, which were considered objectionable, but that a committee was appointed which waited upon the governors, and, so far as he was aware, they expressed a wish to eradicate the objectionable features, and it was now understood that the visiting physician should endeavor to determine whether or not the patients were deserving of charity. Many patients were treated there who paid nothing whatsoever. He thought it was not the intention that patients were to be accepted upon the payment of the one dollar when their means were such as would enable them to secure medical aid elsewhere.

Dr. Pieffard remarked that he based his statement upon what had been told him by gentlemen who were familiar with the present regulations of the New York Hospital Dispensary.

Dr. Sturgis remarked that he had based his statement upon what had been told him by gentlemen holding positions in that dispensary.

The Society then adjourned to meet April 21, 1879, when discussion of the same subject was continued.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 18 to May 24, 1879.

Shannon, W. C., 1st Lieut. and Asst. Surgeon, Fort Clark, Texas. Granted leave of absence for one month, with permission to leave the Dept., to take effect when relieved from duty with 10th Infy., now *en route* to Dept. of the East. S. O. 101, Dept. of Texas, May 14, 1879.

Kinsman, J. H., Capt. and Asst. Surgeon. Granted leave of absence from March 21, 1879, to September 21, 1879. His resignation, accepted by the President, to take effect Sept. 21, 1879. S. O. 117, A. G. O., May 17, 1879.

Errata.—Dr. John R. Hobbie writes, that in correcting his proof he overlooked the word "*inflammation*," 14th line from top of 2d col., p. 404, vol. xv., and that it should read "*deformities*."

Medical Items and News.

Contagious Diseases — Weekly Statement.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 24, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 17, 1879.	0	11	159	0	26	31	1	0
May 24, 1879.	0	4	111	3	39	26	2	0

Medical Department of the University of the City of New York.—Prof. John T. Darby has resigned the Chair of Surgery, and has been made emeritus professor.

Prof. J. Williston Wright has been elected to fill the vacancy caused by the resignation of Prof. Darby.

Prof. Wm. M. Polk, formerly Professor of Therapeutics, Materia Medica, and Clinical Medicine in the Bellevue Hospital Medical College, has, to fill the vacancy caused by the transference of Prof. Wright to the Chair of Surgery, been elected Professor of Obstetrics and Diseases of Women and Children.

Chicago Medical College.—Prof. E. W. Jenks, of Detroit, has been elected to the Chair of Gynecology, made vacant by the resignation of Prof. Wm. H. Byford.

The New York Academy of Medicine. At a stated meeting of the New York Academy of Medicine, held April 17, 1879, the following preamble and resolutions were offered by Dr. S. S. Purple, seconded by Dr. Austin Flint, and passed by the Academy, viz.:

Whereas, Abram Du Bois, M.D., of this city, a most worthy and generous benefactor of the medical profession, has given to this Academy the sum of five thousand dollars for the purpose of enlarging and improving the present building, therefore it is unanimously —

Resolved, That the Fellows of the New York Academy of Medicine recognize in this generous gift, again the noble qualities of head and heart which have, on more occasions than the present, moved the generosity and benevolence of the donor.

Resolved, That this Academy accepts with thanks this generous gift, and hereby declares its desire, and at this stated meeting orders, that Abram Du Bois, M.D., of the city of New York, be, and hereby is, declared a Benefactor of this Academy, and that his name be enrolled on its list as such for all future time.

Resolved, That this Academy, in its earnest desire to truly recognize in a proper manner, the magnanimity of the donor, hereby declares Abram Du Bois, M.D., an Honorary Fellow of the New York Academy of Medicine.

Resolved, That a copy of the foregoing preamble and resolutions be suitably engrossed and authenticated by the proper officers of this Academy, and forwarded to our most worthy benefactor.

Resolved, That these resolutions be published in the New York Medical Record and the New York *Medical Journal*.

[Signed] Fordyce Barker, M.D., LL.D., *President*.

H. T. Hanks, M.D., *Recording Secretary*.

Woman's Medical College of the New York Infirmary.—The tenth annual commencement exercises of the Woman's Medical College of the New York Infirmary were held in the Union League Theatre, Thursday evening, May 22, 1879. The exercises were interspersed with music. The Hippocratic oath was administered to the graduating class by Dr. Emily Blackwell. The degree of Doctor in Medicine was conferred upon *ten* graduates by President Samuel Willets. The valedictory address was delivered by Miss Helen Maria De Witt, of New York, and reflected credit upon its author. The charge to the graduating class was delivered by Dr. Emily Blackwell, and was followed by an address by Mr. Aaron M. Powell, formerly editor of the *Anti-Slavery Standard*.

Veterinary Department of the University of Pennsylvania.—The Philadelphia Society for the Prevention of Cruelty to Animals has issued an appeal to the citizens of Pennsylvania for the foundation of a veterinary department of the University of Pennsylvania. Mr. Coleman Sellers, in an address accompanying the circular, says that in Great Britain and Europe the skilful veterinary practitioner is respected for his skill, and is recognized as a man of science. The time has come when this nation will either have to import from abroad men skilled in veterinary science, or it must take immediate steps to put it into the power of its own citizens to acquire the information needed to improve the sanitary condition of their domestic animals. It is estimated that the cows and the land to support them represent a money value of $1,300,000,000. These animals yield 350,000,000 pounds per annum of cheese; 1,500,000,000 pounds of butter, which, converted into money, stands at $350,000,000 per annum, only one-fifth less than the corn crop of the land. We are said to export $13,000,000 worth of butter each year, and $14,000,000 worth of cheese, while the ocean freights on these exports cost $1,000,000, and the railroad freights, $5,000,000 per annum.

Bellevue Hospital Medical College.—Dr. Joseph W. Howe, formerly Professor of Clinical Surgery in the Medical Department of the University of the city of New York, has been elected Clinical Professor of Surgery in this institution. Dr. A. A. Smith has been appointed lecturer on Therapeutics, Materia Medica, and Clinical Medicine, to fill the vacancy caused by the resignation of Prof. Wm. M. Polk.

New York Hospital and Dr. Gurdon Buck.—The New York Hospital has received by six of his friends a portrait of Dr. Gurdon Buck, whose term of service in that institution extended through forty years.

College of Physicians and Surgeons.—Dr. Henry B. Sands has resigned the "Chair of Anatomy," and Dr. Thomas T. Sabine has been elected his successor. Dr. Sands has been elected Adjunct Professor to the Chair of Surgery.

Dr. Charles H. Giberson—Minute and Resolutions.—At a special meeting of the medical and surgical staff of the Brooklyn City Hospital, held April 23, 1879, the following minute and resolutions were adopted:

Charles H. Giberson, M.D. died at his residence, 98 Remsen Street, Brooklyn, on Saturday, April 19, 1879, of acute idiopathic peritonitis, after a very brief illness of five days, in the forty-first year of his age. He was born in Bath, Carleton Co., New Brunswick, where he received the rudiments of his education. He began the study of medicine at Fredericton, New Brunswick, subsequently pursued it at the Medical University of Vermont, and at the College of Physicians and Surgeons, New York, and was graduated with high honors at the former institution. He entered the Naval Service of the United States in October, 1861, as assistant surgeon, was ordered to the West Gulf Blockading Squadron, under the command of Admiral Farragut, and was attached to the Mississippi when she was burned before Port Hudson. In June, 1864, he was ordered to the marine rendezvous at New York, and was promoted to be passed assistant surgeon in 1865. In 1866 he was attached to the Susquehanna, flagship of the Brazilian Squadron, and was afterward ordered to the Peoria, belonging to the North Atlantic Squadron. He was on duty at New York Navy Yard in 1868, until Nov. 9th, when he resigned his commission in the navy and began the practice of medicine in Brooklyn. He took a deep interest in the advancement of medical science, was an active member of the Kings County Medical Society, and was largely instrumental in the establishment of its Pathological Section. He was also a member of the Medico-Historical Society and of the Physicians' Mutual Aid Association.

In 1877 he was appointed attending surgeon to the Brooklyn City Hospital, and held that position at the time of his death.

Dr. Giberson took an active interest in the patients who were under his care in the hospital, and brought to their treatment the same cheerful manner, the same deep interest, the same skilful insight, the same untiring and sympathetic devotion that he exercised toward those outside of the hospital, and was rewarded by like success both in the results of treatment and in the warm attachment that his patients felt for him.

In the death of our late associate, Dr. Charles H. Giberson, the medical and surgical staff of the hospital feel that they have lost the support and counsel of a skilful mind and conscientious associate in the wards of the hospital, and one who was devoted to the best interests of the hospital in all its departments.

Resolved, That they tender to the family of the deceased their sincere and deep sympathy in their sorrow.

Resolved, That a copy of this minute and resolutions be sent to the family of Dr. Giberson, and to the Medical Record for publication.

S. Fleet Speir, M.D., *Secretary*.

Correspondence of Sir Henry Thompson.—It is due to Dr. Van Buren and our readers to say that the letter from Sir Henry Thompson, which appeared in our columns last week, was prepared by him for publication, and was accompanied by an explanatory note from Dr. Van Buren, which, to our regret, was mislaid.

Ergotine in Ophthalmia.—According to Dr. Planat, of Nice, ergotine makes an excellent and painless topical application in ophthalmia. He employs it dissolved in rose-water or glycerine, in the proportion of 15–22 grains to ʒ v. Eight to ten drops of the solution are instilled into the eye every two hours. When there is chemosis, or when the inflammation of the eyelids is violent, a piece of linen soaked in the solution may be left over the eye for a few hours. According to Dr. Planat, even the most violent cases of blepharo-conjunctivitis can usually be brought under control in two or three days by this treatment. In keratitis ergotine is less active than in the more superficial affections. In iritis it rapidly moderates the acute symptoms, and prevents the extension of the inflammation to the internal membranes of the eye.—*Le Lyon Medical*.

Original Lectures.

ON EPILEPSY.

A Clinical Lecture delivered at Charity Hospital.

By A. McLANE HAMILTON, M.D.,

visiting physician to the hospital for epileptics and paralytics.

Lecture III.

(Reported for The Medical Record.)

Gentlemen:—The physical evidences of this very common disease presented by the patients before and after the attacks are few, and consequently the large number of cases brought before you to-day exhibit a much smaller number of interesting clinical features than those patients who were presented at my previous lectures, and their appearance has only a valuable statistical interest. Epilepsy, as we know, is a malady which, in all cases, implies a recurring loss of consciousness, with more or less convulsive movement as a feature of the attack. The special feature of the disease is this abolition of consciousness, and though the muscular movements may be so slight as to be scarcely appreciable, there is invariably, in true epilepsy, a suspension of the mental powers. It is well that you should remember this in cases which have a medico-legal bearing, for I do not believe that any act of violence which has been done while the individual is said to be epileptic or suffering from an attack of epileptic mania, can be excused unless there is at some time absolute unconsciousness or an epileptic derangement of the intellect. I should be loth, even in those cases, to pronounce the person irresponsible, unless the loss of consciousness had *preceded* the commission of the act of violence.

The loss of consciousness may be sometimes so transitory and irregular as to almost defy detection. Jackson, in his admirable Harveian lectures, calls attention to a form of the attack which he calls the *dreamy* stage, in which there is dual consciousness, or the phantom recollection of some past event or state, such as occurs when the individual unconsciously realizes that he has been in exactly the same state or position at a previous period. This I give to you as a suggestion of how fugacious may be the mental disturbance, and how important it is for you to be on the alert in recognizing these states which, in many instances, are the initial stages of the grave disease.

Now I wish to say a few words with reference to the use of the term epilepsy, for I am disinclined to believe that genuine epilepsy is as common as it is universally supposed to be; therefore to-day I will speak of both an *epileptoid* condition, which is purely symptomatic of various organic diseases of the brain, and *epilepsy proper* as indicative of an attack characterized by a classical train of symptoms which usually present the same mode of appearance in a great number of cases. It is of the utmost importance to make an intelligent distinction of this kind between symptomatic epilepsy, and epilepsy for instance arising in youth and pursuing a tolerably even course for a number of years. Of late the term has been employed by Jackson, Charcot, and many others to express many forms of motor convulsion; Jackson even holding that loss of consciousness is not an absolutely necessary feature of the attack.

Epilepsy proper, it has been found, begins in a great majority of cases before the twentieth year in life, and in a variety of obscure ways. Many of the varieties of infantile convulsions which have formerly been roughly grouped under the head of eclampsia, in reality constitute the commencement of true epilepsy. Such convulsions may be lacking in certain features which go to make up a full attack of the developed disease, but they should always be looked upon with apprehension. In these attacks occurring in infancy, there may sometimes be but slight or momentary loss of consciousness, while the convulsive movements preponderate.

In other cases the condition may resemble *petit mal*, the attacks eventually becoming more pronounced and violent as they recur again and again. The child runs to its mother with a vague fear of some impending trouble, or stops suddenly in her play, her face becoming pale. These and other expressions are often the first indications of the disease. In these cases, intestinal irritation from worms, irritation from dentition, and various troubles of that kind are supposed to be the cause of the attack; but the convulsions have a deeper significance, and, though all exciting causes are removed, they recur from time to time to the discouragement of the physician and the parents. Several forms of epilepsy have been mentioned in the text-books, but for convenience we will only speak of the light attacks, or *petit mal*, and the severe attacks, or *haut mal*. These varieties may coexist, or they may occur independently. Of the twenty-odd patients brought before you, it will be found that about ten per cent. suffer from both forms, while in the remaining cases the severe form is the only one complained of. In fact, there may be a variety of motor expressions, some of which are but subjective; for instance, bearing in mind the fact that there may be a spasm of the muscular fibre of internal organs, as well as of the more gross masses visible to the spectator, it is reasonable to look for visceral and cardiac spasms, and the sensations described by the patient as forms of force expended internally.

It has been my experience in private practice, that pronounced epilepsy is much more common than *well-recognized petit mal*, although I have reason to think *petit mal* is by some supposed to be more common, although it cannot be denied that according to modern psycho-pathology there are numerous curious transitory mental states which are conceded to be epileptoid. An attack of *petit mal* may take a variety of forms. It may simply consist of a momentary loss of consciousness and some spasmodic movement of the arms, or, perhaps, only a grimace in which the eyes may be rolled upward. In one case, at present under treatment, the *petit mal* is associated with nervous cough which usually precedes the attack. In other cases the patient may be seized as he is walking across the floor, remain motionless for a second, and then go on as if nothing had happened. So, too, a species of *mental epilepsy* is very common, expressed by what might be properly called a spasmodic or discharging condition of the psychic centres, and as a consequence there are a variety of curious mental processes, attended, perhaps, by very slight muscular action.

It has been said that loss of knowledge of the attack when it has occurred, is one of the features of this disease, but this is not always true; for even if there be nothing to remind the individual that he has had an attack, such as injury from a fall, or destruction of articles he may be holding at the time of seizure, he is often cognizant of the attack, even though he may

not be so reminded by those in whose company he has been. This is especially the case if there has been an aura. In the more pronounced form of the trouble, I have, therefore, been often made to feel that the patients are by no means ignorant of the occurrence of the fit. Now in regard to the grave attack, we may divide the convulsive seizure into four stages. These stages are not always well developed, either in a single paroxysm or in every individual.

The first stage is that of preparation, and it is in this that the warning or *aura* is felt, if it be present; but it is not, however, invariably complained of. The most common auræ are those of a sensory character, and it will be found that a peculiar sensation starting from the epigastrium and travelling upward to the head, or from the distal end of one of the upper extremities in the same direction, will sometimes warn the patient of the approach of the convulsion; and of these four patients who have auræ, in three it proceeds from the epigastrium. Sometimes the aura is of a vascular character, the patient's fingers becoming swollen and suffused with blood. In other cases the first intimation of an impending fit is the perception of some odor, which may be either offensive or agreeable. For example, some of these patients complain that they smell the odor of smoke before the occurrence of a convulsion; others are annoyed by a disgusting odor of decaying flesh, while the odor of flowers or spices is alluded to; and in one patient of whom I knew, the attack is preceded by the perception of the odor of peppermint. Jackson speaks of a patient who perceived a metallic taste as the precursor of the paroxysm.

With regard to the succeeding stage, that of the actual development of the fit, we may recognize at first the symptoms of anæmia of the brain, and next those of cerebral congestion.

Bearing this knowledge in mind you will be enabled to diagnosticate the epileptic condition much more surely than by trying to remember the somewhat confusing list of symptoms published in the text-books. Either after an aura, or without any warning whatever, the individual falls to the ground and becomes convulsed by a tonic spasm of the muscles so that his body is either arched or bent to one side.

These phenomena are accompanied by great pallor, dilatation of the pupils, and almost complete arrest of respiration. After a few seconds the convulsion becomes clonic, the face becomes red and swollen, the pulse labored and hard, and the patient may void his urine and fæces as a result of spasm of the bladder and rectum. During the clonic convulsion the respiration becomes exceedingly tumultuous and labored, froth oozes from the corners of the mouth, and if the patient has bitten his tongue the froth may be tinged with blood. This is a grave symptom, and has always a bad significance.

The commencement of spasmodic action is, as Jackson has shown, in the smallest muscles, usually of an extremity, and finally the convulsive action becomes extended. If the attack be light and the discharging lesion inconsiderable, but a small number of muscles will be involved; but if the cortical discharge be great, the paroxysm will be extensive.

After a period varying from thirty seconds to several minutes, the patient makes some sign of returning consciousness. During the continuation of these three stages he may twist his arms from side to side in a semi-voluntary manner and mutter unintelligibly, just as a person usually does who is recovering from the effects of ether. He may now, after lying for a variable length of time, gradually recover himself, arise and go about his duties; but more commonly he lapses into a profound sleep amounting to stupor, which constitutes the fourth stage.

In the majority of cases the first stage is ushered in by a noise made by the patient. This noise may be either a shriek, the result of a purely mental process, or a smothered groan, which results from a forcible compression of the thorax and expulsion of air through the vocal cords. The latter sound is more common than the cry.

Of late, considerable attention has been paid to the form of convulsions occurring in an epileptic seizure, and Hughlings Jackson has announced the opinion that these should be divided into two forms: the tetanic, in which there is a preponderance of tonic convulsions, and tendency perhaps to opisthotonos and bilateral flexion of the forearms; and the epileptic or clonic convulsions, which consist in irregular movements. The former he supposes to be associated with disease at the medulla or posterior part of the brain, while the clonic convulsions are more symptomatic of anterior cortical disturbance. This, for some reasons, is a valuable distinction; but it seems probable, and I think a great majority of observers agree, that whether the primary nervous discharge originates in the cortex or at some other point, the medulla oblongata is the true seat of the active pathological change.

Now, with regard to the epileptoid attacks, and among these we may include the so-called syphilitic epilepsies, we usually find a decided irregularity in the expression of symptoms. In the epilepsy which is the result of syphilitic disease, there is undoubtedly a condition of meningeal disturbance of varying degree which exists between the attacks, and this patient who suffers from such a form of disease presents not only the initial expression of mental trouble, but he is at times decidedly deranged. A peculiar sluggishness of ideas and a sort of hebetude is highly suggestive of the specific nature of the trouble, and speech is slow and constrained.

Of course, this is a confirmed case, and we need not always expect such decided manifestation of the condition between the convulsions.

In syphilitic epilepsy there is very commonly headache of severe variety, which precedes the attack, and at the time of the occurrence of the paroxysm it is especially severe; while in ordinary non-specific epilepsy, if headache is present, it is always the result of the seizure.

Diplopia, hemiopia, cranial nerve paralyses of various kinds, and attacks which seem to be expressed by much more violent convulsive movements upon one side of the body than the other, are most decided evidences of a syphilitic fit. The so-called "partial epilepsy" of Jackson and Bourneville is of this variety.

You will meet with cases of paralysis with which there is associated epilepsy, the paroxysm beginning in the paralyzed limb, or others in which there is no clonic stage, but simply a tonic spasm of one side; but this form is quite rare, and there are only two cases of which I know—both reported by Bourneville.

Epileptoid convulsions as the result of cerebral tumors are very often confused with the uncomplicated disease. Though it is not uncommon to find convulsive attacks unassociated with loss of consciousness, there are cases in which the seizure presents many of the features exhibited by the true disease.

In such examples it is well to use the ophthalmoscope, for the existence of retinal changes are frequently found, while local paralyses, disturbances of locomotion, vertigo, headache, and vomiting will usually put one upon his guard as to the fact that

there is a brain tumor. In certain instances, epileptoid convulsions are symptomatic of cerebro-spinal sclerosis, even in its earliest stages when there are no other symptoms, and I have upon several occasions found attacks of this kind to be among the earliest symptoms of general paralysis of the insane.

It is hardly necessary to allude to symptomatic attacks occurring in the course of uræmic poisoning, for the error in diagnosis under these circumstances can only be made by one who sees the patient for the first time, or is entirely unfamiliar with his previous history.

Though the urine is sometimes tested in such suspected cases, and albumen is found, it is not well to be too positive in laying the blame upon the kidneys, for it has been found that a very common evidence of syphilitic epilepsy is the presence of albumen in the urine; but there will be discovered at the same time a decided deposit of phosphates. So this test alone is not sufficient. The appearance of the skin, the existence of œdema, and the symptoms found by ophthalmoscopic examination, such as retinal blanching or extravasations, will render substantial aid in such diagnosis.

The occurrence of the pronounced epileptic attack may be nocturnal, diurnal, and very often matutinal—or early in the morning upon awakening. As far as my experience goes, the nocturnal attacks are the most common. Of these patients before you, probably two-thirds have their attacks at night, although in private practice, or when patients are not closely observed, the occurrence of the night attack is frequently undetected. The staining of the bed-clothes either by bloody froth from the mouth, or by involuntary discharges from the bowels or bladder, or again, the bitten tongue, are often the only evidences which point to the occurrence of the night seizure.

Biting of the tongue seems to be much more common in the nocturnal variety of epilepsy than in any other, and, as has already been said, is a symptom of a very severe attack.

Besides the pronounced forms of epilepsy that I have detailed, there are several others of an irregular type which are rarely seen.

This woman upon my left presents, as the first indication of an attack, a curious disposition to run through the ward, entirely unmindful of what harm she does or who may be present, and manages to escape bodily injury in a way which seems almost miraculous. After a period of about two minutes she has an aborted attack.

In other instances the patient has run through streets for several blocks, or done a variety of curious things, apparently in an automatic manner. For example, Mesnet has reported the case of a soldier who, when given a pouch of tobacco and paper, automatically made cigarettes until the contents of the pouch were exhausted, and when started off at a brisk pace, marched to the end of the room, and, finding that he could go no farther, stood and marked time until stopped by his attendant.

Hughlings-Jackson relates a case of a gentleman who persisted in undressing himself upon a public wharf, and was only restrained with difficulty by his servants, and a few moments afterward knew nothing of what he had done. These and many other curious things familiar to nearly every one, are too often epileptic aborted paroxysms, and I am of the opinion that the "queer" actions of persons supposed to be suffering from incipient insanity, are, after all, epileptic manifestations, and this is strongly presumable if there be no further manifestations of insanity.

These cases are interesting, because they illustrate the fact that there may be utter loss of consciousness, but not necessarily a derangement of motor power expressed in convulsions, and they have especial significance in their medico-legal bearing.

The appearance of the confirmed epileptic is well shown in most of the cases before you. Some of them bear plentiful crops of acne as a result of the bromides, and this is one of the evidences of saturation; but, if you will look attentively, you will observe a peculiar lustreless, fishy expression of the eyes, which is quite striking. There is also a puffiness of the skin, which is of a dull muddy color. The lips have lost that clear red hue which is found in health, and they are swollen, and the lower lip is everted slightly. In some cases there is a low grade of conjunctivitis, and upon turning up the lids, you will find that the inner surface is granular. The lashes have fallen out in some cases, or are gummed together, while there is a disposition to lachrymation. In most of them there is an expression of sadness almost amounting to melancholia, while the faces of others bear an expression of vacuity.

As a consequence of epilepsy, there may be developed several interesting mental states, some of which are illustrated in the patients exhibited to you to-day.

The most familiar and constant state of mind-degeneration is imbecility, although this mental involvement is very often improperly recognized. On the other hand, it is confounded with idiocy, in which an epileptic condition is a symptom of the congenital condition, and not the result of an established disease. When we find imbecility or mental impairment after the period of childhood, it is usually an outgrowth of frequent attacks of *petit mal*.

An important fact bearing upon prognosis is, that very little mental impairment follows violent attacks occurring at infrequent intervals, but that numerous transitory losses of consciousness have a decidedly bad significance. Next in importance among the mental disturbances stands mania, and this may be either a symptomatic or a predisposing affection.

As to the etiology of epilepsy, it will be found that, above all other influences combined, hereditary tendency enters most largely into the causation of the disease; while, as exciting causes, disorders of nutrition, alcoholism, nervous excitement, uterine disease, and fright, play important *rôles*.

With reference to masturbation as a *cause* of epilepsy, I am not disposed to attach much importance to its etiological bearing. It is very common among epileptics, especially the class of patients found in hospitals and dispensaries, and is associated with other vicious tendencies which in confirmed cases render the chronic epileptic a very serious burden to society.

Homicidal tendency, stealing, destructiveness, and morbid impulses of various kinds are not infrequently found in patients who, before the commencement of the disease, had a useful career before them. On "the Island" numerous attempts have been made by epileptics to set fire to the buildings, and fights and brawls are of every-day occurrence.

With reference to the treatment of epilepsy, I have not much to say, for I take it for granted that this branch of neural therapeutics is familiar to you. I would, however, strongly advise you not to be too hasty in the selection of a remedy, for many have been recommended which have been proved to be utterly useless, and some have an undeserved reputation.

I would recommend, in the *first* place, a most careful observance of those hygienic rules which are of so much importance, and influence to such an extent

the progress of all the neuroses; and in the *second* place, would suggest the use of two or three remedies which seem to possess great virtue in this disease.

The bromides have received deserved popularity, and if used within proper limits and in combination, will sometimes cure cases of moderate duration, especially if the case is uncomplicated and is not the result of traumatism.

I am in favor of combining bromide of sodium with bromide of ammonium, equal parts of each, and of administering sixty grains of the combined salts together with thirty grains of hydrate of chloral daily. The doses should be divided so that the largest may be given a short time before the fit is likely to occur; that is, if any regularity in the occurrence of the convulsions can be distinguished. Of course, this quantity may be increased if occasion requires. In other cases, the bromides given in combination with bicarbonate of potash and some simple bitter tonic, as recommended by Brown-Séquard, will produce wonderful results. These remedies are especially serviceable in the nocturnal forms of the disease, and, in fact, are to be commended in the treatment of attacks of an irregular character.

I will caution you against giving the bromides with the mere idea of exhausting, as it were, or stamping out the disease. It is of the utmost importance to combine with them cod-liver oil or some other fat-making material which improves the nutrition of the nervous substance. It has been my good fortune in many instances, where the bromides have been given in excessive doses (even to the point of producing full bromism, and yet without producing any apparent effect upon the disease), not only to materially diminish the number of seizures by reducing the quantity of bromides administered—and giving cod-liver oil, cream, extract of malt, or linseed-oil—but to decidedly improve the patient's general health.

Should the cases, in which we have satisfied ourselves that there is no exciting cause to be removed, resist this plan of treatment, we may resort to the use of the actual cautery, or apply repeated blisters to the back of the neck. But in many cases even these remedies do but temporary good, and the result of our treatment must be discouraging.

From recent trials it would seem that curare is indicated in these obstinate cases, and a standard solution, acidulated with dilute hydrochloric acid, may be hypodermically injected every fifth day in doses of one-third of a grain until five or six doses are given. In the lighter forms of the disease the use of the fluid extract of ergot in drachm-doses, three times a day, alternated with tincture of belladonna in five-drop doses and gradually increased in quantity, afford very satisfactory results when the bromides are apparently inert.

Cannabis indica has also been recommended and successfully used by Sinkler, of Philadelphia.

If the disease has appeared in a patient over twenty years of age, especially when the characteristics of the disease are such as I have described when speaking of syphilis as a cause, we may use the combined iodide and bromide treatment, or better still the bichloride of mercury. One secret of success in the management of this form of the disease, and, in fact, nervous syphilis in general, is to push the administration of the iodides as far as we can safely go, and this must be done rapidly. Whatever you do in the treatment of this discouraging affection, be consistent and methodical. It is extremely injudicious to make changes and try new combinations when the patients are doing apparently well, or even some time when no change follows, or to relax your vigilance over the invalid's personal habits. For epilepsy is essentially a disease, as I believe, in which there is a habit, if it may be so called. In many cases, in fact in a large proportion of all, there is a regular recurrence of the fit; and every day gained after the time when the attack usually occurs is to the patient's advantage, and helps to break up the tendency to regularity.

Original Communications.

THE INTRAVENOUS INJECTION OF AMMONIA.

By GASPAR GRISWOLD, M.D.,

HOUSE-PHYSICIAN TO BELLEVUE HOSPITAL.

During the winter of 1877–'78, while serving as assistant in the physiological laboratory of Bellevue Medical College, I made a number of experiments upon dogs with reference to the action of intravenous injections of ammonia. For this purpose I used the ordinary aqua ammonia (containing ten per cent. of ammonia-gas), diluting it with an equal bulk of water. This solution, if dropped upon the tongue, is highly pungent and irritating, but does not vesicate, the stinging sensation caused by it passing away entirely in a few minutes. I chose for experiment dogs in whom the viscera had been exposed for purposes of vivisection, and who had become exhausted with loss of blood and the depression attending the entrance of cold air into their thoracic and abdominal cavities. I waited, in such a case, until the heart had almost ceased to beat, its rhythm being disturbed, and its inefficient contractions no longer deserving to be called pulsations. I then injected into a convenient vein half a drachm of ammonia solution. After a period varying with the distance of the vessel selected from the heart, and with the rapidity of the circulation in the particular case, a marked change was observable. The heart had a moment before been dark and congested, its right cavities engorged, and the contraction of its fibres weak and uncertain. Suddenly the systole acquired a new energy, which emptied the distended right ventricle into the lungs, and filled the aorta with fresh oxygenated blood; the heart itself became bright red again as the new supply flowed in through the coronary arteries. It is impossible to do justice to the striking picture presented by these phenomena as they rapidly succeed each other beneath the eye of the experimenter. The circulation was almost immediately re-established, and the animal, if anæsthesia were not too complete, moved and showed signs of life. In the course of fifteen or twenty experiments I never failed to obtain the result above described.

In my wards in Bellevue Hospital I have several times injected one drachm of ammonia solution into the veins of patients apparently moribund, and have always succeeded in stimulating them much more powerfully than I could do by other methods. The prompt and marked effect in some cases is almost startling to those who have been accustomed to see hypodermic injections of whiskey and ether, inhalations of nitrite of amyl, etc., employed to no purpose under similar circumstances.

On one occasion a man came in a great hurry, having been notified that his brother was dying of phthisis in one of my wards. Notwithstanding his

haste, the sick man was already moribund and unconscious when he arrived. Pitying his disappointment at being too late for a few last words, I injected a drachm of ammonia solution into my patient's cephalic vein. In five minutes the man who had appeared almost dead was sufficiently restored to speak, and half an hour elapsed before he again became unconscious. The effect of the stimulant was so marked that I had some difficulty at first in convincing the astonished visitor that his brother had not "taken a turn and was getting well again."

Case.—Man forty-five years of age, with cirrhosis of liver and ascites. Has been tapped three times, fluid reaccumulating rapidly; has grown weaker very fast during the past three weeks; now dying of asthenia; unconscious; pulse scarcely perceptible; surface cold and moist.

1st. Six half-drachm doses of whiskey administered hypodermically. No effect.

2d. Six half-drachm doses of ether administered hypodermically. No effect.

3d. Inhalation of ammonia. No effect.

4th. Inhalation of nitrite of amyl. Slight increase in force and rapidity of pulse. No sign of returning consciousness.

5th. One drachm of ammonia solution injected into a superficial vein of forearm. In twenty seconds increased action of heart. Pulse good at wrist. In three minutes patient answered incoherently something about being uncomfortable, and tried to turn on his side. Could be roused, and his attention attracted, for about fifteen minutes; then became unconscious again. Died half an hour later.

Case.—Moribund from phthisis. Unconscious; heart acting very feebly. Intravenous injection of ammonia caused the heart to act vigorously, and partially restored consciousness for about ten minutes.

Three cases, like the last, presenting no feature worthy of special description, but important as corroborative evidence.

The next case deserves more careful attention, being the first in which I have been able to observe the patient long enough to satisfy myself that no bad effects follow the injection of ammonia directly into the circulation.

Hester Mahar, aged forty-seven; Irish; single. Admitted to Bellevue Hospital, April 29th. On admission there was ascites, which had commenced a month before, and was probably due to cirrhosis of the liver. Right pleural cavity nearly full of fluid; heart displaced to the left. No evidence of cardiac or renal disease. Patient very weak, and compelled, from dyspnœa, to maintain a sitting posture. Abdomen tapped; seven quarts and eight ounces of clear serum withdrawn. Patient much relieved. Stimulants and nutritious diet ordered.

May 1st.—Patient very weak. Does not seem to suffer much from dyspnœa, though the right side is nearly full. Considered advisable to postpone thoracentesis until the patient is stronger.

May 3d.—Patient still very weak. Dyspnœa not marked.

May 4th.—Called by nurse to see patient. Found her breathing very little; weakness seeming to obscure the expression of dyspnœa. Almost unconscious. Cannot be made to notice anything, or swallow what is put to her lips. Fluids poured into her mouth run out again. Eyes vacant, pupils dilated; jaw fallen, tongue dry and brown.

Thoracentesis performed with the assistance of three members of the house-staff. Ninety ounces of clear serum drawn off. During the operation, which lasted about twenty minutes, fifteen or twenty half-drachm doses of whiskey were administered hypodermically. In spite of these efforts at stimulation, the pulse, which had before been weak, disappeared entirely at the wrist. The impulse of the heart could scarcely be felt over the præcordia, and the respirations were shallow and ineffectual, not seeming adequate to the inflation of the lung just relieved from the pressure of fluid. The condition of the patient was so unpromising that my colleagues of the house-staff, who had been assisting me, were of opinion that she was dying, and that further treatment was useless, and even absurd. Expressing themselves to this effect, they left me, giving up the case in their own minds, and taking no further interest in the matter. While I was obliged to admit that the case was hopeless, judged by ordinary standards, and beyond the reach of ordinary stimulants, I could not help feeling that heroic measures were specially indicated. The source of trouble—fluid compressing a lung and displacing the heart—had been removed; if the patient could be stimulated to breathe deeply, and profit by its disappearance, there seemed to be good reason to hope for her recovery. Selecting a prominent superficial vein in the radial region, I exposed it by an incision through the skin. I then injected slowly into it a drachm of ammonia solution, taking care that the point of the hypodermic needle was free in the lumen of the vessel. This done, I placed my hand over the patient's heart and waited. In fifteen seconds I felt a marked increase in the force of pulsation. In about two minutes there was a strong pulse of a hundred, which was plainly perceptible at the wrist. A minute later the patient sighed deeply; the color came back to her lips; her eyes moved and began to show signs of returning intelligence. On being urged, she swallowed without difficulty two ounces of strong egg-nog. After a few deep inspirations, she breathed more regularly and easily; her pulse was strong and tense, ranging between 100 and 110. Half an hour afterward she was perfectly conscious, and reported herself comfortable, though weak. Pulse 90, regular and strong. Respirations 26, easy and natural. Swallowed easily and willingly small quantities of egg-nog. During the afternoon and evening patient continued to improve. Pulse 80–90, and strong. Respiration 20–30, and easy. Patient passed a good night, sleeping most of the time. Was bright and refreshed in the morning.

May 7th.—Steady improvement since last note. Sat up for two hours to-day and ate a lamb-chop with relish.

May 17th.—Patient sits up nearly all day and is gaining strength.

N.B.—Improvement has been uninterrupted since the injection of ammonia. No depression has been observed following the stimulant action of that remedy, nor has there occurred an unpleasant symptom which could be attributed to it.

The cases described seem to satisfactorily establish:

1. That the intravenous injection of ammonia is a prompt and powerful means of stimulation, acting efficiently in cases where other measures are of no avail.

2. That no bad effects follow its employment.

While the importance of the above deductions is obvious as a matter of general therapeutic interest, they seem to have a special significance in connection with those operations whose object is the removal of mechanical obstructions to respiration. I mean thoracentesis, and more particularly laryngotomy and tracheotomy. Thoracentesis is not, perhaps, very

often an emergency; but laryngotomy and tracheotomy, done in cases of croup, œdema glottidis, etc., generally fail to save life, because performed too late—the patient being too much exhausted to breathe in the air for which a new entrance has been made. Artificial respiration, hypodermics of whiskey and ether, cold affusions, etc., are resorted to in vain in many instances—the machinery of life cannot be set in motion again, and the cases die for want of efficient stimulation. Now, would not the intravenous injection of ammonia, in connection with artificial respiration, save many of these patients? It being proved that the treatment is without danger and followed by no bad effects, this question should not long remain unanswered.

In conclusion, I would call attention to the fact that it is not easy to perform intravenous injection through the skin. The vein collapses under the necessary pressure, and the needle is apt either to stop short and not enter the vessel at all, or to transfix it and direct the injection into the cellular tissue beyond. The only safe method to pursue is to dissect down upon the vein and expose it; the needle may then be carefully introduced until the point is felt free in the interior of the vessel.

A CASE OF SEPTICÆMIA FOLLOWING AN ABORTION.

By ISAAC OPPENHEIMER, M.D.,

NEW YORK CITY.

On Thursday morning, Oct. 3, 1878, I was called to attend Mrs. ———, æt. 26. She was at the end of the third month of pregnancy and had hitherto enjoyed the best of health. The day before she received a sudden shock by the jerking of a street-car over a stone on the track. She reached home feeling very well, but the next morning had severe pains and a sudden hemorrhage. When I reached her, the bleeding had greatly lessened, consequent upon the discharge of some thick pieces of flesh, as she described them, and which I took to be portions of the fœtus and membrane. These, unfortunately, as is only too often the case, were thrown in the closet. Upon examination I found the external os well dilated and passing through the internal, easily removed some pieces of fœtus and placenta already detached and ready for expulsion. Sweeping my finger over the fundus and not discovering anything, I removed some clots and gave a dose of Squibb's ergot, the uterus immediately contracting after removal of the débris. There was no more bleeding, and I left the patient in a comfortable condition, giving the usual directions as to rest and diet. She remained in bed until Monday, hemorrhage having entirely ceased and the uterus well contracted. She felt quite well at my morning visit, except that her appetite was not as good as on the preceding day, but still she was very eager to leave her bed. During the afternoon I was sent for and informed that Mrs. ——— had a violent chill, lasting about fifteen minutes, at eleven o'clock in the forenoon. Her temperature under the tongue was 105° F., pulse 120; face anxious, with a dark flush on cheeks; tongue furred, and great thirst. No pain on pressure over uterus, and no vaginal discharge; external os open to index finger, internal os contracted. Prescribed 20 grains quinine with 10 grains Dover's powder, to be taken in two doses, one hour apart.

Called about nine P.M., condition unchanged, except patient was partially cinchonized. Next morning her temperature was 99¾° F., pulse 100, perspiring freely, very pale countenance, tongue coated white, lips parched, and no appetite. At this visit I injected per vagina about a quart of sol. acid carbol. (℥ j.–Oj.). In this condition she remained all day, perspiring excessively and feeling very weak, but frequently asserting that she was all right. I was under the impression that it was a malarial attack, though there was no preceding history of that disease. About five o'clock on Wednesday morning she had another violent chill, although a full dose of quinine had been taken the previous evening. When I saw her, her temperature was 103° F., pulse 110, and she presented the same symptoms that followed the first chill. Rejecting the theory of malaria, I determined to examine the uterus, as the symptoms might point toward a septic origin. Steadying the uterus with one hand, I introduced the index finger of the other through the external os to the internal, which I found quite contracted. By patient and gentle pressure it gradually admitted my finger, and, dilating it well, passed on to the fundus. Examining the fundus carefully, I felt several pieces of placenta closely adherent to the uterine wall. By careful scraping with the finger-nail, I removed singly three pieces measuring altogether about one to one and a half inches in length.

The wall of the uterus was lined with a dark, foul-smelling fluid. I administered gr. ⅛ morphia and left the patient. The entire procedure lasted fully half an hour. The pieces removed were black at the edges, of foul odor, and, examined microscopically, were seen to be pieces of placenta in a granular condition. Upon visiting patient in the afternoon, I learned that she had a severe chill half an hour after the operation, but not as violent as the former ones. She was perspiring freely, skin clammy, and temperature 99° F., pulse 95. Pulse and temperature never rose afterward, and in twenty-four hours became normal without the aid of any medicine. She was very weak, however, and it was ten days before she could leave her bed, so depressing were the chills and excessive perspiration. This case presents some very interesting points. It is exceptional that so small a mass of placenta will give rise to septic trouble, and especially where there is no inflammatory or otherwise abnormal condition of the uterine walls. Usually in such cases, hemorrhage, often persistent for months, remains as the only effect. Among the poor, who are often unattended by a physician, this is only too common a result, and the sufferer is soon reduced, by the constant drain on her vitality, to an anæmic and exhausted condition, until compelled to seek medical advice.

On examining, when first called to my patient, the fragments were so small as to escape observation, although a careful search was made. This was due, probably, to the large clots in the uterus. Had the pieces of placenta been removed at once, all these dangerous symptoms would have been avoided.

Where a mass has been expelled before the physician arrives, and thrown away, he should examine the uterus from cervix to fundus, despite the assertions of the patient or attendant that all has passed away, for they will readily exaggerate as to the size of the expelled portion, so as to escape an examination. Sometimes clots will have been mistaken by them for the ovum which, perhaps, is still intact in the uterus. About three months before this I was called to a lady, who, in the third month of pregnancy, was seized with a sudden flooding, while receiving her guests. When I saw her, the maid in attendance informed me that she had thrown some large lumps, which had been expelled, into the closet. As the hemorrhage had ceased

upon my arrival, I supposed these to have been portions of the ovum, but on passing my finger through the dilated internal os, felt, to my astonishment, the sac entire and seemingly completely adherent to the fundus, for I did not stop to examine more minutely. No pains followed, no hemorrhage was induced, though she aborted some eight hours after. An almost similar case occurred in the practice of a neighbor of mine, who, feeling the ovum entire after a severe hemorrhage and where everything had been removed prior to his arrival, counselled complete rest. Contrary to his advice, the patient rose to go to stool a few hours afterward, and aborted almost immediately.

Another point of interest refers to the early appearance of the septic symptoms. At a meeting of the Academy of Medicine, held in February, 1876, during a discussion following a paper on "Unusual Uterine Hemorrhage," a number of well-known physicians stated that they never entered the uterus to remove the placenta after the expulsion of the fœtus, but tamponed the vagina to control hemorrhage and assist dilatation of the os, and thus awaited its natural expulsion. If the placenta was not found on removing the tampon within twenty-four hours, the same procedure was renewed once or twice until expelled, and if not then, manual or instrumental removal was attempted. All danger of septic poisoning seems to have been ignored, for one speaker further stated that he allowed the placenta to remain six or eight days, if necessary, confining treatment to the use of the tampon. In the present case, septic symptoms appeared on the fifth day, and in a few days more the patient might have been beyond mortal help. The objections to removal of the placenta directly after expulsion of the fœtus seemed to be: 1st. Non-sufficient dilatation of os internum. 2d. Inability to introduce the finger into the uterus, if not low enough in the vagina. 3d. Danger of incomplete removal of placenta. 4th. Injury to uterine wall.

As to the first objection, if the fœtus has already been able to escape and hemorrhage consequently taken place, the os must certainly be sufficiently dilated to admit of a finger partially entering and dilatable enough to admit of its complete entrance with a little gentle and persevering pressure, no matter how well the uterus may have contracted.

Steadying and gently depressing the uterus with one hand on the abdomen, we can in most cases reach the fundus by introducing the finger only in the vagina. If unsuccessful, we can partially pass the hand, or, if necessary, introduce it entirely in the vagina. Should the pain be too severe, chloroform can be administered.

Steadying the uterus as described, the index finger is passed to the fundus and then the placenta scraped off. It is not often removed entire, but usually in two large and several smaller fragments. As soon as a piece is detached it is allowed to fall between the base of the finger and the uterine wall, and kept there while another piece is being separated. When all of the placenta is detached, the pieces are pressed against the wall of the uterus and so removed. It may thus be sometimes removed without once withdrawing the finger from the uterus, though usually two attempts may have to be made. After all is finished, a last examination is made, to be certain that no fragments have been left behind. The finger-nail makes a most admirable instrument, and causes no injury to the mucous membrane. It does not dig into, but only scrapes from its surface. Of course the hands are well cleansed and washed in a solution of carbolic acid before the operation. Thus the placenta can be removed with entire safety. I have never seen any bad results follow, even when compelled to administer chloroform to introduce the hand into the vagina, nor discovered any by diligent inquiries as to the experience of others who have employed this treatment. Let it be remembered that our object is to prevent the occurrence of hemorrhage and septicæmia—either sufficient to destroy our patient, and if we can but accomplish this, we should not hesitate because the procedure may be painful or partake too much of the nature of an operation, especially since experience teaches that no bad results follow. How many women would have been spared months of hemorrhage and its disastrous consequences, if but, at the time of abortion, the uterus had been properly emptied?

It is remarkable how rapidly the patient's strength gave way. Eager to leave her bed before the first chill occurred, and although the disease was happily cut short, as it were, I do not believe that she could long have withstood the high temperature and profuse perspiration, liable as she was to secondary disease in some internal organ. With removal of the decomposing placenta, all dangerous symptoms soon disappeared. This proves that the septicæmia depends on the successive absorptions of a virus, each individual poisoning producing a set of symptoms depending on the amount absorbed. The later absorptions necessarily react on a system already enfeebled by the former poisonings, and so death may result from their combined effort alone, or from the altered condition of the blood producing secondary organic trouble. If the blood is at the first overwhelmed with the poison, death may rapidly occur. But this is very rare. The virus seems to be in a measure cast off in the chill, fever and sweat, and with a second introduction, the same set of symptoms recur. The combined effect of these repeated absorptions rapidly overwhelm the entire system, producing that condition known as the typhoid and death. Or death may occur, as before stated, from secondary organic changes, though this is not necessary, as many cases present, post-mortem, no lesions except a dark and fluid condition of the blood.

If, therefore, septic symptoms should follow an abortion, where fragments of placenta have for some reason been allowed to remain, the uterus must be immediately explored and the cause removed, in the hope that sufficient amount of poison has not as yet been absorbed to kill the patient. No matter how desperate the case looks, the attempt should still be made, and the following case, occurring in the practice of Dr. Whitall of this city, shows from what seemingly hopeless a condition the patient may still recover. When the doctor first saw his patient, she lay already in a typhoid state; her temperature was 105° F., pulse 150, cheeks dusky; there was low, muttering delirium; altogether the case seemed hopeless and fast approaching dissolution. There was that odor perceptible in the room and about the bed that too plainly showed the presence of decomposing matter in the uterus. As a last resort, the uterus was explored, and a mass about the size of a large egg, consisting of placenta and clotted blood, was removed. It was decomposing and gave off a disagreeable odor. When the patient was seen on the next day, to use the doctor's words, "she looked like a different person." Pulse and temperature were reduced, her delirium had disappeared, and she soon completely recovered.

Syringing out the uterus with disinfectants only temporizes. It cannot remove what is firmly adherent, and though it may prevent further decomposition, if

used early enough, the patient is liable to the same danger upon stopping the injections, and should no further septic trouble occur, the presence of ever so small a piece of placenta renders the patient liable to hemorrhage when convalescent. Besides, uterine injections, following an early period of pregnancy, often cause unpleasant symptoms, and, to produce a good effect, must be frequently renewed. In the latter stages of septicæmia, as in the case quoted, they can be of but little avail. Metritis should be no objection to removing the placenta, for it is masked by the greater danger, septicæmia, and in fact can scarcely be diagnosed in this condition.

Thus, many cases, otherwise hopeless, may be saved by a rational treatment, based upon the old law of a removal of cause producing a removal of effect.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

PNEUMO-HYDROTHORAX—QUESTION WHETHER IT WAS INCIDENT TO PHTHISIS OR TO EMPYEMA.

In the following case the question arose whether the pneumo-hydrothorax was incident to phthisis or to empyema. It was regarded as a question not easily settled if a case had not for some time been under observation.

A male patient, æt. 25, was admitted to the hospital December 7th. His family history was tolerably good, and was negative with reference to phthisis. He was suddenly seized with a chill, which was followed by pain in the side, dyspnœa, and symptoms which rendered it quite probable that he had pleurisy. After a time he began to expectorate muco-purulent matter.

Looking at the case from those symptoms, it could be fairly regarded one of pneumo-hydrothorax following empyema.

On the other hand, there was hoarseness, which had existed for some time independently of ordinary cold, and there was more or less expectoration of frothy white material with cough before he began to expectorate the muco-purulent matter. He then had a chill and pain, and it might be said that up to that time the case was one of simple phthisis.

There was no evidence of phthisical deposit at the apex of either lung. The patient was unable to lie upon his back or right side. The succussion sound had been obtained several times upon the left side, although at the time of this note it was absent. The case illustrated the fact that the succussion sound was occasionally temporarily absent in unmistakable pneumo-hydrothorax. There was absolute loss of vocal function on the left side of the chest, with flatness upon percussion, except over a very small space at the upper portion. The visiting physician was inclined to the opinion that the free incision was the best treatment for such cases.

EMPYEMA—ASPIRATION—FREE INCISION—MARKED IMPROVEMENT IN THE GENERAL CONDITION OF THE PATIENT.

A male patient was suffering from simple empyema. He had been aspirated, but with each aspiration it was evident that the purulent character of the fluid was increasing. His general condition became very bad. Emaciation was rapid, and he had hectic. A free incision was made into the pleural cavity, and seventy ounces of pus were evacuated. The patient was almost instantly relieved of his dyspnœa and had been improving ever since the incision was made. Previous to the removal of the pus the heart was crowded far to the right, but it had returned to nearly its normal position. There was only slight cough with expectoration. A drainage tube had been used, although the visiting physician thought the cases did fully as well when treated simply by keeping the opening closed with a tent. The pleural cavity was washed out daily with carbolized water, one part of carbolic acid to two hundred of water. The daily discharge of pus was only three or four ounces, and in all respects the patient was improving.

PNEUMONIA—INDICATIONS FOR TREATMENT.

Three cases of pneumonia were seen, which were interesting with reference to the age of the patients and the indications for treatment as presented by the visiting physician.

CASE I.—*Single pneumonia occurring in a patient well advanced in years.—Recovery.*

A female patient, æt. 72 years, a native of Ireland, and a widow, was admitted to the hospital on the 19th of January, 1879. She was in the enjoyment of ordinary good health until the present sickness. On the 15th of January she was taken with pain in the side; there was no chill or vomiting. She felt that she was gradually growing weaker, and on the fourth day of her illness entered the hospital. At the time of admission her face was flushed, her respirations were 34, her pulse 98, and her temperature 104° F. There was evidence of consolidation affecting the lower lobe of the right lung.

On January 20th her morning temperature was 101° F., and afternoon temperature 103° F.

January 21st.—Morning temperature, 101° F.; afternoon, 102½° F.

January 22d.—Morning temperature, 100° F.; evening, 101 F.

January 24th.—Morning temperature, 99° F.; evening, 100° F. From that date up to January 28th the temperature remained at 99° F., and the patient was able to sit up. There yet remained evidence of consolidation of the lung.

One point of interest in the case was the mild course of the disease in a patient so old.

Pneumonia occurring in a person over seventy years of age usually proves fatal; but if not fatal, it is usually attended by symptoms more severe than those present. There were no cerebral symptoms. On the ninth day of the disease defervescence occurred, the temperature falling to 99° F., and remaining at or below that point. See treatment after the history of the following case.

CASE II.—*Double pneumonia occurring in a patient well advanced in years—Recovery.*

A male patient, sixty years old, was admitted to the hospital January 11, 1879. He was taken sick on the 6th of January. The first symptom was a well-marked chill which lasted for one hour, and was followed by a febrile movement and sweating.

At the time of admission his pulse was 106, his respiration 46, and his temperature 103¼° F. There was evidence of consolidation of the lower lobe of the *left* lung.

January 13th.—Pulse, 112; respiration, 40; and

temperature, 103¼ F. There was then evidence of consolidation of the lower lobe of the *right* lung.

January 14th.—Pulse, 102; respiration, 44; temperature, 104° F.

January 15th.—Temperature, 104° F.

January 16th.—Morning temperature, 101¼° F.; evening temperature, 103¾ F.

January 17th.—Morning temperature, 99¾ F.

After that date the temperature remained at about 99 F., and the patient was soon able to sit up.

On the 14th of January, in addition to other symptoms, there was well-marked delirium.

In both instances the disease occurred in old persons. In one case the disease was ushered in by a chill; in the other the first symptom was pain in the side, and there was no chill. In both the temperature had preserved about the same course, ranging between 102 and 104° F., until the day of defervescence, when it fell to 99 F. and remained. In the first case there were no general symptoms, although there was a well-marked febrile movement. She was not delirious. She seemed quite comfortable, and the only symptom demanding especial attention was the condition of the pulse. It was not rapid at any time, but it was recorded as feeble; at one time it was very feeble.

In the second case, on the other hand, delirium for a few days was a prominent symptom. When the temperature fell the delirium disappeared.

With reference to treatment, it had been very mild in both cases. In the first case, the only indication for treatment was the condition of the pulse. The temperature, not rising above 104° F., was not regarded as excessive for a case of pneumonia. She took milk very well, and, to meet the indication for treatment given by the pulse, whiskey was given.

It was administered in half-ounce doses every hour at one time, and as her pulse increased in strength her general condition improved, and the whiskey was repeated every two hours, then every three hours, and finally discontinued altogether. Quiet in bed, nourishment by milk, and the administration of whiskey constituted the treatment in the first case. In the second case the indications for treatment were somewhat different. He was much more sick than was the woman. He had a more serious form of the disease, and cerebral symptoms for several days were well marked. His pulse, however, continued good throughout. But his tongue at one time was quite dry, and his general appearance was such as indicated a fatal termination. The treatment was very simple, notwithstanding the alarming symptoms. During the days when his temperature was the highest, quinine was given in full doses, but it was doubted whether it was of any special service. He also received a moderate quantity of whiskey. Although very sick, his pulse continued in fair condition, and for that reason only a small quantity of whiskey was administered. The chief items in treatment were rest in bed and the administration of as much milk as the patient could take. He had made a very comfortable recovery.

CASE III.—*Pneumonia occurring in a young man—Indications for treatment—Recovery.*

A young man with a large frame, and a general appearance as if capable, when well, of considerable physical endurance, was admitted to the hospital with pneumonia, involving one lobe of one lung. At the time of admission he was very uncomfortable. He complained of pain in the side, felt sick and restless, and his face bore an anxious expression. He was not delirious at any time, but was in a condition which suggested the development of delirium at any moment. His temperature reached 105¼° F., and the pain in the side was severe. His pulse was not feeble, but full and rapid.

The indications for treatment were quite different from those presented in either Case I. or Case II.

Being a young man, he was not depressed by the disease, but felt the full effect of the febrile movement, and his pulse, instead of being weaker, was fuller and stronger than normal. He was very restless, suffered a good deal from pain in the side, and was very uncomfortable.

The principal indication was to make the patient more comfortable. It was believed that such a patient did not need quinine, although the febrile movement was marked. It was regarded as a case in which early general blood-letting would have been beneficial. Not that the course of the disease would have been shortened, but that the patient would have been rendered more comfortable, and at the same time would have recovered in the same manner in which he was recovering.

It was believed that such cases were benefited by another somewhat old-fashioned plan of treatment, and that was by the use of calomel and opium. Had he been treated by using pills containing calomel grs. ii., and opium gr. ¼, repeated every three or four hours during the first two or three days of his illness, he would have been made much more comfortable, but the course of the disease would not have been changed. Instead of either of those plans of treatment, there was still another which had not received the demerit of being old-fashioned, and yet was very serviceable in many cases. It was to put the patient under the influence of aconite combined with small doses of opium. Much the same effect could be produced by that plan as by either bloodletting or the combined use of calomel and opium.

The last plan of treatment was adopted in this case, and the patient's restlessness was alleviated, the pulse was rendered less full and hard, and his entire condition was made very comfortable. Defervescence occurred in the usual manner, and convalescence was established.

The indications for treatment in all cases of pneumonia were placed under two heads:

1. To bring the case to a satisfactory termination, to prevent the death of the patient; and 2, to render the patient as comfortable as possible while the disease was running its course.

To meet those indications no routine plan of treatment was applicable to all the cases.

Defervescence might occur at any time from the second to the seventeenth or eighteenth day of the disease, when the pneumonia was left to pursue its course without any treatment whatever. In most cases the sudden fall in temperature occurred between the fifth and the eleventh day of the disease.

That fact rendered it very difficult to tell what effect treatment produced; to decide whether the results seen were due to the plan of treatment in use, or to the natural course of the disease. That was no reason, however, why an effort should not be made to meet the indications evidenced by certain symptoms.

In pneumonia, as in other inflammatory diseases, the patient required a liberal amount of nourishment, and to meet that indication milk was the best food that could be employed.

It was known that in pneumonia a feeble pulse indicated considerable danger, and that was to be met by the use of alcohol.

It was also known that if the pulse was contracting too forcibly, the condition of the patient would prob-

ably be improved by bringing the action nearer to the normal.

At the same time, at the end of every case there seemed to be considerable doubt with reference to the amount of actual benefit the patient had received from any treatment.

URÆMIA ASSOCIATED WITH ELEVATION OF TEMPERATURE.

It has been said that one of the diagnostic points to be considered in deciding whether in a given case coma is due to uræmia, is that in pure uræmia there is no elevation of temperature. The case before us was an exception to the suggestion, because there was marked elevation of temperature and well-defined uræmic symptoms, without any known inflammatory complication. The patient was at once put upon the use of digitalis, in doses of half an ounce of the infusion every two hours. Dry cups were applied over the loins, a drop of croton oil was administered, and ten minims of Magendie's solution of morphia were given hypodermically.

Progress of Medical Science.

BUCCO-PHARYNGEAL TUBERCULOSIS.—In a clinical lecture delivered at the *Charité*, Paris, Dr. Laboulbène gave the history of a case of this rare affection that had been under treatment for some time in his wards. On admission the patient presented consolidation and softening at the right apex, and an ulcer with sharply-cut, serrated edges, and a grayish base, situated on the right side of the hard palate, extending from the canine tooth to the posterior part of the gum. The upper gingivo-labial fold also presented some ulcerations, with slightly fungous bases. These ulcers were very painful; mastication was also difficult. Some yellowish points were discovered scattered along the borers of the ulcers. The diagnosis was tubercular ulcers of the mouth, and it was subsequently confirmed by the autopsy.

In the evolution of this affection, the initial stage is always overlooked. The patient presents a few grayish granulations on the bucco-pharyngeal mucous membrane, but there are no appreciable subjective or objective symptoms. The ulceration begins by removal of the epithelium, thus laying bare the granulation. This soon disappears, and then the painful stage begins. The contact of cold air, of wine, and of food, and the movements of the tongue, excite pain, which is sometimes so intense that the patient refuses all nourishment. The salivation is often very profuse. The glands in the submaxillary regions are never markedly enlarged, and are often perfectly intact. Later on, the patients present symptoms of pulmonary, abdominal, or cerebral tuberculosis. When examined with a strong light, the edges of the ulcers are seen to be elevated and scalloped. Some of the ulcers are round, and some serpiginous; some are old and others recent. Alongside the ulcers a number of yellowish points, or granulations, will be found. This is a pathognomonic sign. The ulcers are very persistent, but recovery is possible. The yellow granulations are always found in the recent ulcers, but may be wanting in the older ones. When enucleated, they are found to consist of a few connective-tissue fibres and minute elements, smaller than blood-corpuscles, containing nuclei that can with difficulty be seen. These granular elements are shrivelled and caseified embryonic cellules, the characteristic elements of tubercle. When a section is made through an ulcer, the little vessels going to it are seen to be surrounded by rings of leucocytes, which finally completely obliterate the lumen of the vessel.

The diagnosis of this affection from other lingual ulcerations, and more especially from syphilitic and cancerous ulcerations, is often exceedingly difficult. The prognosis is, as a rule, unfavorable; even if the ulcers should be cured, the diathesis persists. In the treatment the general measures to be adopted are those indicated by the diathesis. Locally, the tincture of iodine, nitrate of silver, perchloride of iron, and emollient gargles have been found to be useful. —*La France Médicale*, Feb. 19th and 22d.

NATURE OF THE YELLOW FEVER POISON.—Dr. H. D. Schmidt, pathologist of Charity Hospital, New Orleans, has had numerous opportunities for investigating the nature of the poison of yellow fever. He takes a decided stand against the germ theory, claiming it to be a disease depending, like small-pox, scarlet fever, measles, etc., upon a specific poison of animal origin, a product of the diseased human organism itself. In support of this position, he adduces the immunity from a second attack, which it possesses in common with all other specific diseases. The pathology of the disease also distinguishes it from those affections in which a *contagium vivum* has been found, for in place of the venous congestion, ecchymosis, softening of the spleen, and loss of coagulability of the blood, which are characteristic of this class, we have arterial congestion, normal spleen, and retained coagulability of the blood, although the latter has been erroneously reported as lost. In severe cases hemorrhages may take place from different mucous membranes, but hemorrhagic effusions into the interior organs are but seldom observed. The most characteristic phenomenon, however, is the fatty infiltration or degeneration constantly met with in a number of organs. The poison emanates from the body of the affected individual only in the gaseous form, and in this form may be absorbed by another individual, or, adhering to clothes, bedding, etc., may be transported to distant places, and there become other centres for distribution. As in the case of putrefaction, septicæmia, *the poison increases in intensity with each individual through whom it passes*; explaining the fact that the fatality of the disease increases as the epidemic advances. No bacteria, or other living organisms, are found in the blood of patients in any stage of the disease. The prevention of the disease involves the interesting and unsettled question of quarantine, and the perfect isolation of the first cases would certainly appear to be the most important sanitary measure.—*New York Medical Journal*, May, 1879.

TREATMENT OF CLEFT PALATE.—The success of staphylorraphy should not be measured simply by the extent of union obtained, but the ultimate object of the operation, the improvement of the speech, should be kept in view. That union is frequently obtained cannot be denied, but Dr. Kingsley claims that the improvement of the speech is but a rare sequel, owing to the shortness of the velum preventing the closure of the posterior nares. To accomplish the desired object, a soft palate made of rubber is more useful, and he narrates a case in which this was done with success. The patient had been operated upon ten years before, and the cleft in the soft palate closed; anteriorly an opening in the hard

palate was closed by an obturator. No gain had been made, however, in articulation. A velum of soft rubber was now made and passed through the opening in the hard palate, the anterior extremity being fastened to the obturator. The only immediate effect was a change in the tone of the voice; but a few weeks under the care of an elocutionist produced a marked improvement.—*New York Medical Journal*, May, 1879.

Iodine in the Treatment of Malarial Fever.—In corroboration of Dr. Willibrand's assertion that iodine is a specific remedy for malarial disease, comes the evidence of Dr. J. W. Wadsworth, Saltillo, Mexico, who has treated over three hundred cases of intermittent fever with this drug. He has records of two hundred and sixty of these cases, many of them being chronic cases extending over various intervals of weeks or months. In the severe cases ten to fifteen grains of quinine were given at first, followed by compound tincture of iodine, ℥ x. to ℥ xv.; in the severest cases arsenic was added. In every case the paroxysm was arrested within twenty-four hours, and twelve doses, or four days of treatment, were sufficient to guarantee a cure, with the exception of eight relapses, six being on the fourteenth day, one on the twenty-first, and but one on the seventh. In not a single instance, though under the most miserable hygienic surroundings, did there occur a failure to effect an immediate cure, when the medicine was taken as directed. Quinine and arsenic have often failed the writer, but iodine never.—*New York Medical Journal*, May.

Cholecystotomy.—This operation has been performed four times of late years; in 1876, by Prof. Bartholow, of Cincinnati, who aspirated a distended gall-bladder, and advised the exploration of the common and cystic duct in similar cases by passing a probe through the canula; in 1878, by George Brown, M.R.C.S., who opened into the abdomen, but failed to reach the gall-bladder; during the night, however, bile was discharged from the wound, and the woman subsequently recovered; the case of Dr. Sims, published in the *British Medical Journal*, June 8, 1878, was the next, and to him is due the credit of placing this on the basis of a deliberate operation in the surgery of the abdomen. Dr. Keen's case was published in the January number of the *American Journal of the Medical Sciences*. Petit, however, read a paper on this subject in 1733, and mentions some reported cases. Le Dran, Morgagni, and others speak of it as a proceeding to be considered under certain circumstances. In 1859 Dr. Thudichum suggested "performing an operation for the extraction of these foreign bodies (gall-stones) either in a direct manner or by forming a biliary fistula, and adopting a lithotriptic proceeding."—*American Journal of the Medical Sciences*, April, 1879.

Quinine and the Cerebral Circulation.—From the experiments of Cheirone, of Naples, published in the *Gazette Hebdomadaire* for 1875, taken with a series of experiments made by Dr. Hammond, Dr. Mary Putnam Jacobi draws the following conclusions: 1st. Quinine in small doses (seven to fifteen centigrams) causes active dilatation of the external cranial circulation of the rabbit. 2d. In larger doses this was more slowly produced, but when produced was much more persistent. 3d. In the trepanned rabbit this effect was much more slowly produced, and only at much larger doses. It was then as persistent as in the non-operated animals. 4th. Dilatation of the aural blood-vessels may be produced, while those of the pia mater remain absolutely unchanged.—*The Richmond and Louisville Medical Journal*, May, 1879.

Effects of Constipation upon Rectum and Anus.—Physiologically, the rectum is always empty, except shortly before the regular time for defecation. At this time the sigmoid flexure passes its contents into the rectum, and that uneasy sensation which is recognized as a call to evacuate the bowel is then experienced. If this call is resisted, a reversed peristaltic motion is excited in the walls of the rectum, and the fecal matter is returned to the flexure. When this neglect becomes habitual, the rectum ceases to empty itself completely and becomes a reservoir for fecal accumulations. Atony of the muscular wall results, the lining membrane of the gut hangs loose and flaccid, the whole pelvic circulation is interfered with, and hemorrhoids form. In this condition a drastic cathartic empties the bowel and forces the relaxed mucous membrane through the anus, where it is grasped by the sphincters; congestion, ulceration, and even sloughing of the entire constricted portion now result. The relation of cause and effect, though not always demonstrable, very frequently exists between constipation on the one hand, and fissure of the anus, abscess of the rectum, fistula in ano, internal and external hemorrhoids, prolapsus recti, stricture, and polypus of the rectum, etc., etc., on the other. It is a fact not sufficiently dwelt upon in this connection, that it requires but a short sojourn in the rectum to cause absorption of the fluids in the fæces, and to render the remaining matter hard and dry. Consequently, when the office of the large intestine has become deranged, and the natural disposition of the fæces interrupted, the rectum may contain dry fecal matter during the greater part of the time, notwithstanding that there seems to be a sufficient motion daily. In such cases the addition of water to the contents of the intestine is imperatively indicated. The bowel can be solicited to re-establish the suspended function, and the dry, hard, fecal matter can be softened by the daily use of an enema. In this way both indications can be met, and in the vast majority of cases a cure established.—R. A. Vance, M.D.—*The Cincinnati Lancet and Clinic.*

On Acute Leucocythæmia occurring in Diphtheria.—Prof. Bouchut made daily enumerations of the blood-corpuscles in all the cases of diphtheria that came under his observation within a period of six months, the number of analyses amounting to 177, and from the results obtained he has deduced the following conclusions: In severe septicæmic diphtheria there is always an acute leucocythæmia, which increases as the disease progresses, and diminishes when convalescence sets in. On the other hand, in the mild cases of diphtheria without septicæmia, there is no leucocythæmia, and the children always recover. In twenty-four cases, studied day by day throughout the whole course of the disease, the number of white globules varied between 5,000 and 10,000 in twelve out of ninety-three analyses, and between 10,000 and 100,000 in the other eighty-one, the average being 26,824. Prof. Bouchut insists on the necessity of daily examinations of the blood, as the number of white globules may be normal in one day and greatly increased in the next. He claims that valuable prognostic data may be gathered from these examinations, a rapid increase of the white globules indicating the occurrence of septicæmia, and pointing almost positively to a fatal termination, while a persistence of the normal relations between the red and white globules indicates a mild form of the disease, and almost certain recovery.—*Gazette des Hôpitaux*, Feb. 18th, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 7, 1879.

CROUP AND DIPHTHERIA.

As long as the relationship between these diseases continues to be an unsettled question, discussions concerning them will have both interest and importance. For, there is no nosological dispute that involves therapeutical measures so closely in its decision. This fact, together with the circumstance that important contributions to the subject have recently been made, are a sufficient excuse for presenting what has been so repeatedly made the subject of discussion.

About two years ago the Royal Medical and Chirurgical Society appointed a committee to inquire into the facts concerning the etiology, relationship, etc., of these two diseases. Their report was recently presented; and, although it has not yet been printed for distribution, the general character of it has been sufficiently made known. They were directed to inquire as to whether membranous laryngitis existed as a separate disease from diphtheria, and, if so, whether there were any clinical or pathological criteria by which it could be recognized. The report was to embrace also the etiology and general course of the diseases. No especial reference was called for in regard to their morbid anatomy; and the fact that no distinction between the diseases can be made on such a basis seems to be generally acknowledged.

The committee have carefully and laboriously carried out the instructions given; and their report not only covers the grounds above mentioned, but contains an appendix, in which is furnished a digest of the replies to queries sent out to a great number of practitioners.

The conclusions of the committee, as well as the evidence furnished by the queries, we may as well state at once point towards a belief in the non-identity of the diseases, or to the belief that there may be a laryngeal croup which is not due to diphtheritic poison. In connection with such conclusion, it is important to remember the definition which they give of the two diseases. Croup, they say, is a term signifying a laryngeal obstruction in children, accompanied by a febrile movement, which may or may not be attended by false membrane. Diphtheria is a zymotic disease, accompanied by membranous exudation, and which may or may not be attended by croup. These definitions were not provisional, or adopted previous to the investigation, but represent rather their conclusions, which are further and more definitely expressed in the statement that "croup may be membranous or not membranous, due to diphtheria or not so." The very strong leaning towards duality in these expressions is, however, modified in other parts of the report; and it can be seen that the document is a compromise between the somewhat conflicting opinions of its members.

The question of identity has been considerably narrowed since, some five years ago, it began to be actively discussed, and it may be well to re-state it now. Physicians had for a long time met in their practice two classes of cases, of which a notable and common feature was a membranous exudation in the throat or larynx. The one was a contagious, asthenic disease, attacking adults occasionally, with the false membrane deeply imbedded in the pharyngeal mucous membrane, and attended with albuminuria, and followed by nervous sequelæ. The other appeared to be a sthenic, non-contagious disease, characterized by a superficial membranous exudation in the larynx, occurring only in children. The latter was a local inflammation only, while the former was a specific constitutional affection. In defence of the duality of these diseases, a difference in the character of the exudation was at first claimed; but this claim is, as we have stated, now generally abandoned. The question then rested on the differences in clinical history. The albuminuria of diphtheria was evidenced as characteristic, but albuminuria was shown to occur sometimes in croup; the contagiousness of diphtheria was presented, but it was urged that diphtheria itself was not always contagious. Further, the asthenic character and paralytic sequelæ of diphtheria were asserted to be not always characteristic of diphtheria, and were sometimes characteristic of croup. The force of many of these assertions had to be admitted by the advocates of the non-identity of the diseases, and it has been pretty clearly shown that many of the cases that have been considered croup were really cases of diphtheria, and that the former disease, if it did exist at all, was of rare occurrence. The dispute, indeed, seems to have now narrowed down to the question whether membranous laryngitis is always caused by the special poison of diphtheria. In asserting the affirmative, the advocates of identity make a very sweeping statement, and throw the burden of proof upon themselves. It seems to be very well established that a traumatic membranous laryngitis may be set up by ammonia, steam, foreign bodies,

etc.; and the claim that the exudation in these cases is only and always an eschar, is not, we believe, well sustained. If, then, membranous laryngitis can be excited by irritating agents of such gross character, why not by the more impalpable ones of atmospheric or telluric, but not necessarily diphtheritic origin? Thus the question stands, and the committee have furnished no evidence to settle it. Some time ago, in discussing this same question, we stated that the evidence then rather pointed towards the identity of the two diseases. That this is in general the case, we are still disposed to believe, but as yet it can by no means be asserted with certainty that the membranous laryngitis of children is always produced by the diphtheritic poison.

PREVENTIVE MEDICINE.

THE old adage, "an ounce of prevention is worth a pound of cure," is pregnant with practical common sense. It is as equally applicable in the practice of medicine as in any other pursuit or profession, and receives the endorsement of the most experienced in the ranks of the medical profession. It is so much easier to keep out of the whirlpool by avoiding the rapids which lead directly to it, than by effecting an escape after once having entered them, that we give in full the words of one of the Nestors in our ranks upon this important subject. Dr. Samuel D. Gross closed his oration, delivered at the dedication of McDowell's monument, in the following significant words:

"Young men of the Kentucky State Medical Society, listen to the voice of one who has grown old in his profession, and who will probably never address you again, as he utters a parting word of advice. The great question of the day is, not this operation or that,—not ovariotomy or lithotomy, or a hip-joint amputation, which have reflected so much glory upon Kentucky medicine,—but preventive medicine, the hygiene of our persons, our dwellings, our streets—in a word, our surroundings, whatever and wherever they may be, whether in city, town, hamlet, or country, and the establishment of efficient town and State boards of health, through whose agency we shall be the better able to prevent the origin and fatal effects of what are known as the zymotic diseases, which carry so much woe and sorrow into our families, and often sweep like a hurricane over the earth, destroying millions of human lives in an incredibly short time. The day has arrived when the people must be roused to a deeper and more earnest sense of the people's welfare, and suitable measures adopted for the protection as well as for the better development of their physical, moral, and intellectual powers. This is the great problem of the day, the question which you, as representatives of the rising generation of physicians, should urge, in season and out of season, upon the attention of your fellow citizens,—the question which, above and beyond all others, should engage your most serious thoughts, and elicit your most earnest co-operation. When this great, this mighty object shall be attained; when man shall be able to prevent disease, and to reach, with little or no suffering, his threescore years and ten, so graphically described by the Psalmist, then, but not until then, will the world be a paradise, with God, almighty, wise and merciful, in its midst, reflecting the glory of his majesty and power, and holding sweet converse in a thousand tongues with the human family."

Reviews and Notices of Books.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M.D. Henry C. LEA, Philadelphia.

THE profession has long been looking to Dr. Emmet for some authoritative statement of his opinions and practice in the department which he has done so much actively to create. The volume before us is therefore sure to meet with a host of readers. The limits of this review preclude any attempt to give a complete synopsis of the work. The reader will find in its pages a full measure of that ripened experience which furnishes a book its real right to existence.

Chapter I., On the Relations of Climate, Education, and Social Development, contains some useful warnings and excellent advice. The opening sentence is rather lugubrious. "A thinking man," it states, "who has had opportunities for observation, cannot divest himself of the apprehension that the physical development of the women of our land is becoming deteriorated." It is, however, a great comfort to remember that, from the earliest history of our race, no thinking man ever did divest himself of gloomy apprehensions regarding the future of posterity. At any rate, coming as we do from a section of the country where men and women have the trick of nearly outliving the century, we have our suspicion that the sentence quoted is moonshine. Dr. Emmet does not, however, often treat the reviewer to an opportunity for criticism.

Chapter II., On Instruments used in Examinations, and Chapter III., On Surgical Instruments and Appliances, furnish a useful key to the pages which follow. The description of the vaginal tampon should be carefully studied. Chapter IV., On Modes of Diagnosis, is clear, and likely to prove of service to beginners. Chapter V., On Causes of Disease, Reflex and Direct, contains the following statement: "The female who has passed her life in celibacy is more liable, after the age of thirty, to suffer from the development of a fibrous tumor than the sterile, while the sterile is more liable than the fruitful woman." This conclusion is drawn from an analysis of 239 cases, and is interesting because a similar analysis by Winckel of 555 cases led him to a precisely opposite result.

The sixth, seventh, and eighth chapters are devoted to general treatment. They are explicit, and the recommendations in them will be subjected to an extensive trial. The triumph of hot-water injections in uterine affections is Dr. Emmet's own work. In 1853 Trousseau reported two cases in the *Gazette des Hôpitaux* (No. 33), in which the hot-water douche was

employed to control uterine hemorrhage. The hemorrhages were due respectively to abortion and cancer. The treatment was successful. The reporter of the cases states that Trousseau was led to a trial of the hot water by noticing the difference between the hands when one is placed in water at 104° while the other is immersed in water at the freezing point. The contrast between the bloodless condition of the former and the congested appearance of the latter after prolongation of the experiment, led to a trial of the hot water in uterine hemorrhage for the sake of obtaining its permanent secondary effects. Trousseau's idea was received with small favor at the time, and soon passed into oblivion. The fact is only brought up here to show the contrast between a happy thought and the patient experimentation which leads to the undisputed acceptance of a novelty in practice.

In Chapter XII., On Pelvic Hæmatocele, Dr. Emmet writes: "In twenty-five years there have been but four cases of hæmatocele treated in the Woman's Hospital," etc. This is quite remarkable, as it is not infrequent in Bellevue Hospital to meet with as many cases in a single year. The picture on page 243 represents the ordinary form of pelvic hæmatocele. It is hardly possible that the tumor could have been, as the text suggests, extra-peritoneal, as extravasations of blood into cellular tissue take place slowly, and are not of great size. In the rule the bleeding takes place into the posterior cul-de-sac, or sinks there from gravity. Inflammatory adhesions form, which shut off the effused blood from the rest of the peritoneal cavity. If after the tumor has become encysted fresh hemorrhage occurs, the fluid crowds the rectum and vagina downward, and presses the uterus upward and forward against the symphysis pubis. The most favorable conditions for the rapid production of a large hematocele dislocating the vagina, rectum, and uterus in the manner designated, take place when old inflammatory adhesions roof over the cul-de-sac of Douglas before the effusion takes place.

The reader will naturally turn with interest to the chapters on Vesico-Vaginal Fistula. Nothing nearly so good can be found elsewhere upon the subject. The controversial portion is written in admirable temper. Heretofore we had gotten to think that there was something in the nature of the subject which was incompatible with mental serenity, or temperate discussion. When we mentioned to the late Prof. Simon that Dr. Emmet had operated some four hundred times for vesico- and recto-vaginal fistulæ, the distinguished Heidelberg professor replied, "It is not true; I have operated more times than any man living, and I have not had nearly that number." In the careful study made of the causes of vaginal fistulæ it is to be regretted that no attention has apparently been paid to the influence of pelvic contraction in the production of the lesion. A series of carefully made pelvic measurements instituted in every case would have been of incalculable value to the science of midwifery.

In its general features Dr. Emmet's book is a surprisingly good one. The style is clear though not always elegant. The arrangement of the matter is excellent. In the preface the author says: "This work is essentially a clinical digest. It includes the results of my individual experience, and aims to represent the actual state of gynæcological science and art." Fortunately, Dr. Emmet's experience has been so exceptional, his industry so untiring, that the manipulation of his own material has left little room for introducing the handy-work of others, or at least of those outside his immediate circle of associates. How much of all the work that has been accomplished in gynæcology during the last fifteen years has been done in the New York State Hospital for Women, and how much of the work there accomplished falls to the credit of Dr. Emmet, can only be judged by reading the book through. It is hardly likely that a similar experience will fall to the lot of any single man in the coming generation. Gynæcological methods are gradually becoming diffused and popularized. With the removal of the mystery which has surrounded the diagnosis of pelvic disorders, their treatment is destined to enter more and more into the domain of general practice. For those who are eager not only to become familiar with the higher triumphs of uterine surgery, but who are anxious as well to enter the lists and to do their part in the work, we cordially recommend Dr. Emmet's book as a capital guide, teeming with wise instruction.

Reports of Societies.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

THIRTIETH ANNUAL MEETING.

Held in Chester, May 21, 22, and 23, 1879.

WEDNESDAY, MAY 21ST.—FIRST DAY.

AFTERNOON SESSION.

THE Society met, pursuant to adjournment, in Holly Tree Hall, in the city of Chester, at 3 o'clock P.M., and was called to order by DR. WM. B. ULRICH, of Chester, Chairman of the Committee of Arrangements. The President, DR. JAMES L. STEWART, of Erie, Pa., took the chair.

Opening prayer was offered by the REV. HENRY BROWN, of Chester.

The names of the delegates as registered on the book were read by the Permanent Secretary, DR. WILLIAM B. ATKINSON.

THE ADDRESS OF WELCOME

was delivered by DR. WILLIAM B. ULRICH on behalf of the Committee of Arrangements. He welcomed the delegates to the "old town but young city of Chester," and commented upon the manifold advantages and good results of such reunions as the present, and closed with an eloquent reference to the spirit of progress.

MISCELLANEOUS BUSINESS.

The Chairman of the Committee of Arrangements, DR. W. B. ULRICH, reported by reading the programme of the meetings and several invitations to entertainments. These invitations were accepted and the thanks of the Society tendered.

REPORT OF CORRESPONDING SECRETARY.

DR. OSCAR H. ALLIS, of Philadelphia, the Permanent Corresponding Secretary, then made his report, acknowledging the receipt of the Transactions of the State Medical Societies of Ohio and South Carolina. He also introduced a complaint signed by fourteen members of the Columbia County Medical Society, which was referred to a special committee to report on the next day. The committee consisted of Drs. Andrew Nebinger, of Philadelphia, Traill Green, of Easton, A. H. Halberstadt, of Pottsville, J. A. Murphy, of Wilkesbarre, and A. Thayer, of Erie. A committee on unfinished business, consisting of Drs.

Fricke, of Philadelphia, Hengst, of Philadelphia, and Orth, of Harrisburg, was also announced at the same time.

ADDRESS ON SURGERY—THE TREATMENT OF WOUNDS.

Dr. Charles T. Hunter, of Philadelphia, in his report, referred to the necessity of arresting hemorrhage. He was in the habit of always thoroughly wiping off a wound, and thought it was the better plan to open the wound whether the hemorrhage had stopped or whether the bleeding still continued. Where the stump was filled with clots he always made it a point to open the wound and remove all the clots. He discussed the merits of the catgut ligature, of the method by torsion of closing wounds, and of all the other ordinary methods. The catgut ligature he considered to be by all odds the best. It did not act as a foreign body in the tissues, but was either, as held by Fleming, disorganized and dissolved, or if not disorganized, its place was at least filled very soon by organized material. He wished particularly to dwell upon the value of catgut as a ligature for wounds of the larger nerves and of the tendons. The catgut, in such cases, should pass through the cellular tissue and nerve-sheath, but not through the tissue of the nerve itself. To preserve the approximation of the surfaces of wounds, it was necessary to apply compresses, and to fix the part in a splint.

Regarding drainage, he preferred to drain wounds by means of Chassaignac's (1859) tube. In closing a wound the sutures should be placed very close—not more than mm. 10–15 apart.

He was accustomed to insist upon immobility, whether the movements of the muscles were liable to disturb the approximation of the surfaces or not. The part should be placed at once upon a splint. Immobility should be maintained inviolate until the wound was fully healed, and should be assured in the very simplest wound.

The speaker believed in dry and infrequent dressing. The dressing should be light and just large enough to protect the surface. Compression of a gentle character should be always employed, but there should be no constriction for fear of obstructing the circulation. He always regarded the clinical thermometer as an excellent and most reliable index of the temperature of a wound. If the degree of temperature marked by it was under 100° F. he never allowed the dressing to be disturbed short of six days, and usually retained it in position as long as ten days. The popular idea that wounds of the face and head heal more rapidly because the parts are more vascular, Dr. Hunter said was an error; the legs and hands were just as vascular, and wounds of those parts would heal just as rapidly if they can be kept perfectly quiet.

Dr. Charles D. Nancrede, of Philadelphia, strongly emphasized the speaker's estimate of the catgut ligature. He believed that he was the first person in Philadelphia to use the catgut ligature and to employ the antiseptic, or Lister method. He had used the catgut ligature twice with great success in the coaptation of wounds of tendons, and had never known of any secondary hemorrhage following its employment. The wounds in which it was used had healed with wonderful rapidity. He could also bear testimony to the value of the clinical thermometer. If the scale did not at any time reach a higher point than 101° F., he was accustomed to have his residents at the Episcopal Hospital, in Philadelphia, allow the dressing to remain undisturbed.

Upon the motion of Dr. Benjamin Lee the thanks of the Society were tendered Dr. Hunter for his address.

SPAYING FOR SOME OF THE DISORDERS OF MENSTRUAL LIFE.

Dr. W. Goodell, of Philadelphia, spoke of the various forms of disease peculiar to the menstrual period, such as fibroid tumors, chronic ovaritis and ovaralgia, prolapse of the ovaries, chronic pelvic peritonitis, ovarian epilepsy and ovarian insanity—in fact all the forms of pernicious menstruation, and referred to the great difficulty in treating them, and to the fact that they generally remained unmanageable until the change of life.

He wished to illustrate, by some cases of his own, the treatment of those conditions first proposed by Dr. Robert Battey, of Rome, Ga., who effected an artificial change of life by removing both ovaries. That operation was called "normal ovariotomy" by its originator, but he was inclined to define the operation by the good old Saxon word, "spaying." He was supported in the use of that term by such a celebrated authority as Dr. Aveling.

Case. I.—A married woman, æt. 33. This patient was scarcely ever free from pain, which came on before each menstrual period, and lasted all through menstruation, so that she passed three weeks out of every four in bed. The patient consulted Dr. S. Weir Mitchell, who called in Dr. Goodell upon the discovery of the presence of an abdominal tumor. At the time when Dr. Goodell first saw the patient she was thin, pale, and bloodless. Examination revealed an ante-flexed womb imbedded in the hilus of a kidney-shaped fibroid tumor. The sound gave a measurement of three inches. The tumor turned out to be a subperitoneal fibroid. It was determined to remove both ovaries. The operation was followed by but slight hemorrhage. Its effect was wonderful. In six months the tumor was no larger than a horse-chestnut in size. At last accounts the patient had walked four miles into the country in search of flowers.

(Dr. Goodell had collected eleven cases of spaying for fibroids besides his own, making twelve in all. In three of those death had ensued; but in those three cases the abdominal section had been made. In the remaining nine convalescence had been uninterrupted, the menopause had been established, and the tumors had decreased in size.)

He then gave the history of three cases—one successful, one death, and one in which the mental condition of the patient was not improved.

Dr. Goodell stated that he had collected statistics of 51 operations for the removal of the ovaries; out of those there had been 15 deaths. Of the 20 patients from whom the ovaries had been removed per vaginum, but 4 had died, while of the 31 cases in which abdominal section had been made, 11 had died. He always performed the vaginal operation first, and if he found it impossible to remove the ovaries through the vagina, he then made the abdominal section and used the vaginal wound as a drainage-opening. The abdominal section should always be made while the patient was lying on her side. He had no doubt that the fact that he had operated upon his third case while the woman was in the lateral position had been the cause of death. The spray should always be kept going while the abdomen was open. He had just removed a fibro cystic tumor by incising the abdomen from the ensiform cartilage to the pubis, and the patient had recovered without a single bad symptom. Out of 132 cases collected by a European writer, there were 15 in which menstruation had continued

after both ovaries had been removed. He had no doubt that that continuance of the menses was due to the presence of a third ovary—*post-mortem* examinations often revealing the presence of one or more supernumerary ovaries. His general experience had been that the sexual appetite remained unchanged by the operation.

The paper was referred to the Committee of Publication.

Discussion being open,

Dr. John Curwen, Superintendent of the State Insane Asylum at Harrisburg, remarked that Dr. Goodell's fourth case had been under his care for the past four months, and had become a continued, from being at first a paroxysmal case of insanity.

Dr. Albert H. Smith, of Philadelphia, regretted that Dr. Goodell had chosen such a title for his really valuable paper—using a term which was only employed in connection with the lower animals. It would be much better to preserve the title of its first advocate and call it "Battey's operation."

Dr. T. J. Gallaher suggested that obstinate cases of nymphomania might be cured by the operation in question. Might it not also be inflicted as a punishment upon prostitutes?

Dr. Ellwood Harvey, of Chester, did not know why male as well as female prostitutes should not be spayed.

Dr. Goodell was quite willing to accept Dr. Smith's proposal and would change the name of his paper to "Removal of the Ovaries," etc. He was not by any means sure that the operation would cure nymphomania. Drs. Spencer Wells, Atlee, and Peaslee, had all concurred in the opinion that the sexual feeling was the same, if not greater, after the ovaries had been removed.

JUVENILE INSANITY.

Dr. Isaac N. Kerlin, Superintendent of the Home for Feeble-minded Children, at Media, read a paper with the above title. Mental disease, he said, was more frequent in childhood than was commonly imagined. According to the statistics of Dr. Bouteville, the proportion of insane children, between the ages of five and nine years, was 10 per cent.; between ten and fourteen years, 35 per cent.; and between fifteen and nineteen years, 20 per cent. It was not improbable that many of the minor forms of juvenile insanity were allowed to go unrecognized, being regarded as a temporary consequence of sympathetic disturbance, or the sequel of acute disease, and so likely to pass away when the cause was removed, or overgrown. In many cases that happy sequence did not occur, and the little victims sank rapidly into the dementia of idiocy, or developed into erratic, excitable, vicious childhood, passing through the courts, and the refuges and reformatories as criminals, from whence they graduated into other planes of crime.

The paper was referred to the Committee on Publication, and the meeting was adjourned to meet at 8 P.M.

First Day—Evening Session.

The Society was called to order at 8 P.M., to listen to the

PRESIDENT'S ANNUAL ADDRESS.

Dr. Stewart occupied his allotted time by a brief review of the lives and characters of some of the learned and distinguished gentlemen who had presided over the Society in past years. He spoke only of those who were no longer with us, but had rested from their labors. It was a fine sentiment advanced by Confucius that "we ought to keep the dead before our eyes and know them as if they were still living." In our eulogies and encomiums upon the great advances made in medicine, we should constantly recollect what we owe to the men of former years, who so laboriously laid the foundations upon which we were now building. Moreover, in the department of the practice of medicine, it might well be doubted if the profession, with all its improved appliances and aids, was much more successful than it was twenty-five or thirty years ago.

Dr. Stewart then referred somewhat at length to the lives of the following former presidents of the Society: Dr. Hume, of Lancaster, Dr. Heister, of Berks Co.; Dr. Carpenter of Schuylkill Co.; Dr. Cunningham, of Beaver; Drs. Concha, Jewell, and La Roche, of Philadelphia; Dr. Wallace, of Berks; and Dr. Atlee, of Philadelphia.

The Society then adjourned, to meet at 9 A.M., on Thursday morning.

Thursday, May 22d—Second Day—Morning Session.

The Society was called to order at 9.30 A.M., by the President. The proceedings were opened with prayer by the Rev. A. T. Dobson, of Chester.

The reports of the county societies were referred to the Committee of Publication.

NOMINATING COMMITTEE.

The following names were read by the Secretary as members of the Nominating Committee: Drs. E. Melhorn, Adams Co.; L. De B. Kuhn, Berks; J. W. Neeley, Allegheny; H. Pratt, Bucks; Jacob Price, Chester; M. F. Nelson, Mifflin; W. W. Dale, Cumberland; H. McGowan, Dauphin; Milner, Delaware; A. H. Thayer, Erie; J. W. Hughes, Indiana; B. B. Smith, Tioga; J. G. Sloan, Washington; W. S. Rowland, York; H. S. Wishart, Franklin; A. T. Palmer, Jefferson; J. M. Livingston, Lancaster; J. E. Bulkley, Lucerne; J. S. Fulmer, Northumberland; Swartz, Perry; A. H. Smith, Philadelphia; F. J. Birch, Schuylkill; Lyman, Bradford; Craig, Beaver; T. Lyon, Lycoming; S. Wolf, Montgomery; A. Gillausteller, Montone; Jas. Engleman, Northampton.

REPORT ON MEDICAL LEGISLATION.

Dr. R. L. Sibbett, of Carlisle, the Chairman of the Committee, stated that a memorial had been prepared and laid before the Legislature, now in session, requiring the registration of all practitioners of medicine and surgery by the prothonotaries of the several counties of the State. Should this bill fail to become a law, the committee requested that the members of the several county societies there represented commence registration immediately under the existing law which required the prothonotary of each county to purchase a record book, which might be called the "Medical Register" of the county.

With regard to the resolutions concerning compensation for medical experts in criminal courts, and the right to give or withold an opinion in such courts as presented by the Lycoming County Society and referred to the committee, Dr. Sibbett said that the committee were not yet ready to touch the matter or to express any definite opinion upon a subject regarding which so much difference of opinion now existed.

The report was accepted and the committee continued.

Dr. Traill Green, of Easton, said that the prothonotary of his county had procured a book and was

very willing to do the work, but had no means of forcing physicians and surgeons to register.

Dr. Stewart, of Erie, the President, said that the law had been enforced in his county, and that an irregular practitioner had been arrested and had given bail, and then left the neighborhood for parts unknown.

REPORT OF THE COMMITTEE ON MEMORIALIZING THE LEGISLATURE ON FEMALE SUPERINTENDENTS FOR FEMALE DEPARTMENTS FOR STATE HOSPITALS FOR THE INSANE.

The report was read by Dr. Traill Green, a member of the committee, who said that the committee had prepared a memorial and had caused a copy to be sent to every member of the State Senate and House of Representatives; that they had also prepared and placed in the hands of the Hon. Wm. B. Roberts, representative of Montgomery County, the following bill entitled "An Act for the better regulation and treatment of the female insane in the asylums and hospitals of the Commonwealth of Pennsylvania:

"*Section I.*—Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same: That in all hospitals or asylums now built or hereafter to be built and under control of the State, and in which male or female inmates are received for treatment, it shall be the duty of the trustees of said asylums or hospitals to appoint a female superintendent who shall be a skilful physician and who shall reside in said asylum or hospital, and who shall have the entire medical control of said female inmates.

"*Section II.*—That said female superintendents shall be appointed by said trustees for a term of not less than five years, and shall not be subject to removal within that term except for infidelity to the trust reposed in them, or for incompetency.

"*Section III.*—This act shall take effect, as to asylums and hospitals already built, in one year from the date of the passage of the bill.

"*Section IV.*—That all acts and parts of acts inconsistent with the provisions of this act be and are hereby repealed."

The Legislative Committee returned this bill to the house with an "affirmative recommendation," not one member dissenting. As soon as it was referred to the Judiciary Committee, the following memorial was placed in the hands of the Senate:

"To the honorable Senate and House of Representatives of the Commonwealth of Pennsylvania:

"The memorial of the undersigned members of the medical profession respectfully represents that they have learned with surprise of the introduction of a bill into the House of Representatives compelling the boards of trustees of the different State hospitals and asylums for the insane to appoint "female medical superintendents," who are "to have entire control of the female patients," and thus be independent of the chief medical officers of these institutions. Believing, as they do, that having two superintendents, acting independently of each other, in these institutions, cannot but prove detrimental to their best interests and the welfare of their patients, tending, as such an arrangement must, to destroy harmonious action, proper discipline, and good order, your memorialists trust that the bill referred to will not receive your favorable consideration. The views of your memorialists are fully confirmed by all practical experience in the management of these institutions during the last forty years, and much of the success which has attended them has resulted from a system directly in opposition to the principles of the bill now under consideration."

This memorial, headed by the signatures of Isaac Ray, Samuel D. Gross, Thos. S. Kirkbride, D. Hayes Agnew, and J. M. Da Costa, led the Judiciary Committee to report the bill to the Senate with a "negative recommendation."

Subsequently, the Board of Managers of the State Hospital for the Insane at Harrisburg met, and, with only one dissenting vote, passed resolutions emphatically endorsing the bill as before the Senate. Robert Lamberton, Esq., of Harrisburg, legal advocate, with these resolutions in hand, and, aided by Representative Roberts, had succeeded in again putting the measure upon its feet. Thus the matter now stood.

Upon the conclusion of the report, Dr. Isaac Kerlin, of Media, read a minority report, opposing the bill, citing the memorial of Philadelphia physicians and surgeons above quoted, and concluded with the reading of a private letter written him by Miss Dorothea L. Dix, in which that eminent philanthropist and benefactor of the insane argued against the change.

The question being open for discussion, Dr. John Atlee, of Lancaster, characterized the resolutions passed at the last meeting, creating the committee, as sprung upon the society. He was proud to say that he was the one member of the Board of Managers of the State Asylum at Harrisburg who had voted in the negative. He did not believe in two heads for an institution, but had no objection to having females appointed as assisting superintendents, provided they served an apprenticeship and got the knowledge and experience necessary for the successful treatment of the insane. He moved that the committee be discontinued, and that no further action be had in the matter.

Dr. Traill Green denied utterly the imputation cast upon the inception of the movement by Dr. Atlee. He did not himself believe in a double-headed institution any more than Dr. Atlee, but the plan proposed was to have the male and female departments distinct and separate from each other, with distinct and separate superintendents. If young men who had freshly graduated from the colleges were thought competent to take charge of the insane, he did not see why the young women graduates should not be fitted to do the same thing. He himself was at first opposed to the change, but with time and reflection he had been led to believe implicitly in its necessity.

After remarks by Drs. Hiram Corson in the affirmative, and by Dr. S. T. Davis, of Lancaster, in the negative, a motion was made by Dr. Albert H. Smith that the report of the majority be received and adopted as the sense of the Society. That motion was carried by a vote of 37 to 28. The minority report, upon motion of Dr. O'Neill, of Gettysburg, was referred to the Committee of Publication.

REPORT OF COMMITTEE ON EPILEPSY AND INSANITY.

Dr. John Curwen, the Chairman, stated that as no statistics relative to epilepsy as a cause of insanity had been forwarded to the committee by any of the county societies, he was manifestly unable to make any report on the subject. He wished to speak very strongly, however, against the but too common practice of declaring criminals to be insane when they ought to be hung.

The speaker was supported in this position by Dr. Traill Green.

ADDRESS ON MEDICINE.

In the absence of Dr. Andrew Fleming, of Pittsburg, the Address on Medicine, written by him, was read by the Secretary, Dr. Atkinson. The paper was a lengthy one, and had as its title the "Symptoms, Prognosis, Diagnosis, and Treatment of Nervous or Emotional Fever."

CHOLERA INFANTUM.

Dr. Ellwood Harvey, of Chester, read a very interesting paper with the above title, embodying the results of a very extensive practice. The reader said that the greatest number of recoveries in cases brought under his care were the result of good nursing, where the children had been kept in cool, quiet, darkened rooms while sleeping, and had been fed with judicious care. The fatal terminations were in the homes of those who lived in one room, with the heat of a cooking-stove and its attendent odors; with the thumping of cradle-rockers on an uncarpeted floor, with glaring light; with the gabble of visitors over the sleeping child; and with all the other destructive conditions incident to such circumstances.

The first symptoms of the disease were those which pointed to some disturbance in the brain, such as clutches at the sides of the head with the hands, pulling the ears, throwing the head backward in sleeping, sleeping with the eyelids partly open and with the eyes turned upward. That was the beginning of cholera infantum, and at that stage it was easily cured by making the patient cooler, diminishing the food to an amount that could be easily digested, cutting the gums if they needed it, and, if those means were not sufficient, by blistering the scalp. The one essential cause of the disease seemed to be *excessive heat*, either of the weather or of the heated room, which might be increased in either case by too much covering over the child.

In severe attacks the speaker recommended blisters to be applied as early as possible to the denuded scalp, one on each side of the head above the ears. The plaster should be spread thick. Blisters on the scalp were slower to draw than on other parts of the body, were less painful, and healed quickly without dressing. If a crop of boils followed the blisters, there would be no more cholera infantum while they lasted. It was useful, in every case, to allow plenty of water. No treatment would succeed if the child was kept too warm. The more the patient slept the better. Always secure for it during sleep a cool, quiet, dark room, allow no talking in the room while it was asleep. When awake have it carried out in pleasant, quiet, shady places. The paper was referred to the Committee on Publication.

Dr. Benjamin Lee said that he agreed fully with the speaker in regard to the causation of the disease. He was convinced that its sole cause was intense heat. He did not consider the disease as one of the alimentary canal, but of the nervous system. If nothing else would do good but blisters, he should not hesitate to use them, but he preferred milder measures at first, such as tepid-baths and ice to the spine

Dr. Hiram Corson was not much in favor of blistering. When the child was quite unconscious, he had been accustomed for a number of years to lay an ice pillow under the back of its neck.

The paper was further discussed by Drs. T. J. Gallaher and Wm. B. Ulrich.

THE DIAGNOSIS AND TREATMENT OF FRACTURES NEAR THE JOINTS.

Dr. Packard, of Philadelphia, read a paper upon the above subject. It was almost always difficult to determine upon the exact seat of a fracture. The existence of fractures near the joints was not often, if ever, referred to by authors. Pilcher, of Brooklyn, had published a case of a fall on the wrist where the ligaments had been strained and the bone fissured. There was, in most cases, a spot of limited tenderness over the upper ends of such fissures. Such fractures (*i. e.*, those near the joint) almost always ran in a direction which favored impaction. In dealing with all such cases, it was important to warn the patient that permanent stiffness might ensue. In treating such fractures, it was generally necessary to etherize the patient.

The paper was discussed by Drs. H. Lenox Hodge, of Philadelphia, and John Atlee, of Lancaster.

FRACTURE OF THE LOWER END OF THE RADIUS.

Dr. R. J. Levis, of Philadelphia, made a few remarks on this subject, and exhibited a new splint for the treatment of such fractures, devised by himself, and manufactured by Mr. Gemrig, of Philadelphia.

STATE BOARD OF HEALTH.

The following was offered by Dr. T. S. Crawford:

"*Resolved*, That the Medical Society of the State of Pennsylvania, now in session at Chester, Delaware County, views with the deepest satisfaction, the progress of the Senate bill, in the House of Representatives, to create a State Board of Health. Seeing in it a promise that our great commonwealth will not long remain behind our little sister State of Delaware in establishing this much needed agency for the better protection of the lives and health of our citizens.

"*Resolved*, That this resolution be forwarded by telegraph to the appropriate officer of the House of Representatives."

Adopted.

THE LEGAL RESTRAINT OF HABITUAL DRUNKARDS.

The following was offered by Dr. Michael O'Hara, of Philadelphia:

"*Resolved*, That the bill now before the Legislature of this State, providing for the legal restraint of habitual drunkards in asylums especially designed for the treatment of those so unfortunately affected, commands the entire sympathy of this Society, and that we do not hesitate to urge upon the House of Representatives the duty of providing such a resource for the victims of inebriety, and the protection of their families and their property.

"*Resolved*, That this resolution be communicated to the proper officer of the House of Representatives at once."

Adopted.

ADVICE TO MEDICAL JOURNALS.

The following was offered by Dr. Geo. Hamilton, of Philadelphia:

"*Resolved*, That it is the sense of this Society that the various medical journals of this country should devote more space to general medicine and surgery, to the exclusion of extraneous matters."

Adopted.

The Society then adjourned.

Second Day—Afternoon Session.

The meeting was called to order by the President, and the Secretary read an appeal by J. P. Seiler, of Dauphin County, from the decision of the censors of his district.

Upon motion of Dr. William Pepper, of Philadelphia, a committee of five members of the Society was appointed to inquire into the merits and demerits of Dr. Seiler's case, and to report upon it at the next yearly meeting of the Society.

The death of Dr. Thompson, of Dauphin County, being here announced, a few eulogistic remarks were made by Dr. Jno. Atlee, of Lancaster.

REPORT OF THE NOMINATING COMMITTEE.

The Committee on Nominations made the following report:

For President.—Andrew Nebinger, M.D., of Philadelphia.

For Vice-Presidents.—Wm. B. Ulrich, M.D., of Delaware County; Jacob L. Zeigler, M.D., of Lancaster County; George A. Lynn, M.D., of Washington County, and Joseph A. Murphy, M.D., of Luzerne County.

For Permanent Secretary.—Wm. B. Atkinson, M.D., of Philadelphia.

Recording Secretary.—To be chosen by the Blair County Society.

For Corresponding Secretary.—Oscar H. Allis, M.D., of Philadelphia.

For Treasurer.—Benjamin Lee, M.D., of Philadelphia.

For Committee on Publication.—Drs. Wm. B. Atkinson, Benjamin Lee, Wm. Souder, Oscar H. Allis, J. G. Stetler, and James Tyson, all of Philadelphia, and Isaac N. Kerlin, of Media.

For Delegates to the American Medical Association.—Drs. J. L. Stewart, Erie County; James Tyson, Philadelphia; J. T. Carpenter, Schuylkill; Louis Kuhn, Berks; M. F. Hudson, Mifflin; Jas. M. Sherrer, York; J. S. Crawford, Lycoming; James B. Ely, Perry; Jonathan E. Bulkley, Luzerne; Rob. B. Brown, Jefferson; Nathan McDonald, Allegheny; A. M. Miller, Lancaster; J. L. Blackley, Washington; Isaac Purcell, Montour; S. R. Rutledge, Indiana; J. R. Swigert, Snyder, Charles Stubbs, Chester; Robert Horner, Adams; Ellwood Harvey, Delaware.

For Delegates to the New Jersey Medical Society.—Drs. Oscar H. Allis, Philadelphia; J. S. Crawford, Lycoming County; George R. Welchens, Lancaster.

For Delegates to the New York State Medical Society.—Drs. A. R. Blair, York; A. Thayer, Erie; J. Ogilbie, Montour; S. S. Kosier, Schuylkill.

For Delegates to the Ohio State Medical Society.—Drs. S. A. Craig, Beaver; W. C. Evans, Erie; Geo. A. Lynn, Washington; S. Stebbins, Chester.

For Delegates to the Delaware State Medical Society.—Drs. W. W. Dale, Cumberland; R. B. Ewing, Chester.

For Delegate to the West Virginia State Medical Society.—Dr. H. G. Christman, Franklin.

For Delegates to the Maryland State Medical Society.—Drs. W. S. Rowland, York; J. W. C. O'Neill, Adams; Frank E. Mack, Schuylkill; Alexander Craig, Lancaster.

For Delegates to the Massachusetts State Medical Society.—Drs. John W. Hughes, Indiana; A. H. Halberstadt, Schuylkill.

For Delegate to the Connecticut State Medical Society.—Dr. Thomas W. Birch, Schuylkill.

For Censors for the First District.—Drs. A. Fricke, Philadelphia; J. N. Kerlin, Delaware; J. Fulton, Chester.

For Censors for the Second District.—Drs. J. B. Walton, Bucks; Traill Green, Northampton; W. B. Erdmann, Lehigh.

For Censors for the Third District.—Drs. Hiram Corson, Montgomery; W. Murray Weidmann, Berks; D. W. Bland, Schuylkill.

For Censors for the Fourth District.—Drs. Brainherd Leaman, Lancaster; H. O. Whitman, Dauphin; H. O. Orris, Perry.

For Censors for the Fifth District.—Drs. L. B. Kieffer, Cumberland; J. W. C. O'Neill, Adams; Jas. W. Kerr, York; S. G. Lane, Franklin.

For Censors for the Sixth District.—Drs. A. H. Shaeffer, Mifflin; D. P. Miller, Huntington; John Fay, Blair; J. G. Wilson, Cambria; D. S. Griffith, Bedford.

For Censors for the Seventh District.—Drs. W. S. Duncan, Fayette; D. G. McConaughy, Westmoreland; A. Anderson, Indiana.

For Censors for the Eighth District.—Drs. W. S. Forster, Allegheny; L. S. Blackley, Washington; D. S. Margin, Beaver.

For Censors for the Ninth District.—Drs. S. Graham, Butler; E. Griswold, Mercer; W. S. Welsh, Venango; J. Ross, Clarion.

For Censors for the Tenth District.—Drs. A. S. Bonsted, Erie; T. J. Young, Crawford; David Best, Crawford.

For Censors for the Eleventh District.—Drs. C. Hibler, Centre; C. K. Thompson, Tioga; Thos. Lyons, Lycoming.

For Censors for the Twelfth District.—Drs. J. D. Strawbridge, Montour; E. R. Mayer, Luzerne.

For Censors for the Thirteenth District.—Drs. D. N. Newton, Bradford; L. A. Smith, Susquehanna.

The next place and time of meeting to be the city of Altoona, on the third Wednesday of May, 1880.

THE ADDRESS ON HYGIENE.

Dr. R. A. Cleemann, of Philadelphia, began his address with words of warning against too hasty generalizations in hygiene—as, for instance, in attributing too much to sewer-gas as a cause of typhoid fever; also as claiming too much in the prevention of disease by measures of cleanliness, without taking into consideration the exclusion of specific causes. He then spoke of the statistics of cancer as showing a vast increase in mortality from this cause, and discussed the question whether marriages should be advised between those inheriting the predisposition to this disease, deciding strongly in the negative.

Dr. Cleemann closed with a notice of the establishment of a National Board of Health, and of the progress of a bill at Harrisburg creating a State board.

EXTENSION AND FIXATION IN THE TREATMENT OF SPINAL CURVATURE, WITH A DEMONSTRATION OF THE USE OF THE POROUS FELT JACKET.

Dr. Benjamin Lee, of Philadelphia, was introduced, and proceeded to demonstrate the great benefit derived from the application of the porous felt jacket for the treatment of spinal curvature. The great superiority of this preparation over the plaster jacket depended upon the ability of the excretions of the skin to escape through the pores in the felt material, and so conduce to the health of the patient. Dr. Lee illustrated his remarks by various drawings and crayon sketches on the blackboard.

A CLINICAL CONTRIBUTION TO EXOPHTHALMIC GOITRE.

Dr. Pepper read a very interesting clinical paper on this disease, giving the history of thirty-one cases in his practice. The ages of the patients ranged from ten to seventy years. The speaker declared the disease to be more frequent in the female than in the male, and considered it to be due in the majority of cases to anæmia, general debility, and mental anxiety.

PROFESSIONAL EXPERT EVIDENCE.

Dr. John H. Packard, of Philadelphia, made a motion that the following memorial and draft be sent to the State Legislature, after receiving the signature of all the officers and delegates of the Society:

"To the Honorable, the Senate and the House of Representatives of the Commonwealth of Pennsylvania. The undersigned, members of the medical profession, practising in this State, respectfully ask the enactment by your honorable bodies of a law, a draft whereof is herewith submitted. We believe the operation of such law will be to promote the interest of citizens and the welfare of the Commonwealth."

"AN ACT TO EXTEND TO PHYSICIANS AND SURGEONS THE BENEFIT AND OBLIGATIONS OF THE LAW OF PRIVILEGED COMMUNICATIONS.

"*Be it enacted, etc.*, That no person duly authorized to practise physic or surgery shall be allowed, or compelled to disclose any information which he may have acquired in attending any patient in his professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon. And your petitioners will ever pray, etc."

Adopted.

EXAMINATION OF THE USUAL SIGNS OF DISLOCATION OF THE HIP, AND AN INQUIRY INTO THE PROPER COURSE TO PURSUE WHEN THE DISLOCATION IS COMPLICATED WITH FRACTURE.

Dr. Oscar H. Allis, of Philadelphia, began his remarks by an examination of the usual signs of dislocation of the head of the femur. Those he took up one after the other, and demonstrated how they could be so modified as to mislead in finding the true diagnosis. "If then," said the speaker, "the signs of dislocation can vary so greatly, how great must, of necessity, be our embarrassment when fracture of the pelvis, fracture of the neck of the femur, synovitis, etc., step in to complicate the matter."

He then spoke of dislocation when complicated with fracture of the shaft, pointing out the peculiarity of a force which could first dislocate and then fracture, for he urged that those injuries could never be simultaneous. When the fracture is in the upper part of the shaft, then the dislocation had occurred first, but when the fracture occured low down in the shaft, it would be impossible for a dislocation to occur.

In regard to the treatment, he said that he would, upon purely theoretical grounds, adapt the lower fragment to the upper, *i. e.*, if the head lay upon the dorsum ilii, he would direct the lower part of the limb across the sound one, rotating the foot inward. His remarks were profusely illustrated by chalk sketches on the blackboard.

TREASURER'S REPORT.

Dr. Lee submitted his report showing that there was a balance in the treasury of $1,067.20. After being audited by a committee appointed by the chair, the report was approved.

THE EXTERNAL TREATMENT OF SKIN DISEASES.

Dr. John V. Shoemaker, of Philadelphia, read a paper upon the above subject. He began with a description of the numerous external agents of value in the treatment of diseases of the skin. He pointed out that hard water would be found to irritate sensitive cutaneous surfaces, while sea-water actually stimulated the skin. He spoke of the chemical action of soap, and said that medicated soap, prepared with bran, oatmeal, and borax, was decidedly beneficial. He then proceeded to discuss the use of the oleates in the treatment of diseases of the skin, as proposed by Mr. Jno. Marshall, of England. Oleic acid possessed solvent powers more active than most bases of ointments, and consequently the chemical combinations so formed were more potent when applied to the skin. Dr. Shoemaker closed with a reference to his own investigations and the combinations he had suggested, including the oleates of lead and bismuth, and described their properties and results.

The paper was referred to the Committee on Publication.

A REPORT ON THE EXAMINATION OF RAILROAD EMPLOYEES FOR COLOR BLINDNESS.

Dr. Peter D. Keyser, of Philadelphia, surgeon to Wills' Eye Hospital in that city, read a paper of particular interest, giving the result of a careful examination of the train hands on the various railroads having their terminus in Philadelphia, with regard to color blindness. He found three and one-half per cent. color blind—that is, three and one-half per cent. of the whole number who mistook colors one for the other, and eight and one-half per cent. additional, who, although able to distinguish the colors, were unable to tell the shades, *i. e.*, who shaded badly, thus making twelve per cent. of those examined who are not quick and sharp in noticing and distinguishing colors and shades. The three and one-half per cent. had visual defects of such a character as to make them really incapable and unsafe to fill the positions which they occupied. The speaker's attention was mainly attracted to two peculiarities. One was the fact that two men, who could not distinguish red from green on test, had educated themselves to know that red was an intense color, and were thus able to distinguish bright red signals, but at the same time bright green and other bright colors were red to them. For those they said that they would stop the trains, thus being on the safe side and never having an accident to occur to them. But dark green they called a deep, or dull color, and dark red, dark green, and brown were all green to them, and they would pass them by as all right on the road, thus causing them to be unreliable in their positions. The other peculiarity was the power of distinguishing bright red when held within three feet of the eyes, while at ten, twenty, and thirty feet, it was invariably called green. In sorting the wools, bright red and light green he picked out together for red. In that case the acuity of vision was normal.

The paper was accepted and referred to the Committeee on Publication.

The Society then adjourned.

In the evening a reception was tendered to the visiting delegates by the Delaware County Medical Society, at Holly Tree Hall, from 8.30 to 12 P.M.

Friday, May 23d—Third Day—Final Session.

The delegation left Chester by a special train at 8.30 A.M., for the Institution for Feeble-minded Children, at Media, where the closing session was held.

The Society was called to order in the main hall of the institution at 9 A.M., by President Stewart.

Appointments.

The following gentlemen were appointed to prepare papers to be read at the next annual meeting:

Address on Medicine, Dr. Thomas W. Shaw, of Pittsburg.

Address in Obstetrics, Dr. J. T. Carpenter, of Pottsville.

Address in Surgery, Dr. John H. Packard, of Philadelphia.

Address on Mental Disorders, Dr. Isaac N. Kerlin, of Media.

Address in Hygiene, Dr. Benjamin Lee, of Philadelphia.

A letter was then read from Dr. James A. Reed, of Allegheny County, saying that he had been prevented by illness from writing the address on mental disorders for the current year.

REPORT ON STATE BOARD OF HEALTH.

Dr. Benjamin Lee, of Philadelphia, read the report, which stated that the committee had addressed a memorial to the Legislature, urging the passage of the bill reported by the State Society, and that they had personally visited Harrisburg for the purpose of impressing upon the members of the Legislature the great importance of the measure. In the meantime another bill, on the same subject, had been introduced into the Senate, which the committee supported as amended at their suggestion. One of the valuable features in the bill which had passed the Senate and was now pending a second reading in the House, was that it introduces county boards of health. The doctor also stated that the act had reached a further stage than any previous one for the same purpose.

The report was received and the committee continued until the final action on the bill was decided.

NOCTURNAL EPILEPSY.

Dr. John Curwen, of Harrisburg, read a paper on this subject, translated from a French work, which was referred to the Committee on Publication.

HOMES FOR INEBRIATES.

Dr. Joseph Parrish, of Burlington, delivered a very interesting address upon this subject, and reviewed the various systems in this country and Europe. It was referred to the Committee on Publication.

A recess was then taken in order to give an opportunity to Dr. Kerlin, the Superintendent of the Institution to introduce the inmates on the stage. This was done, and the classes went through gymnastic exercises. Dr. Kerlin then made a few remarks and introduced Dr. Seguin, Sr., to the society. Dr. Seguin spoke on the subject of Kindergartens.

METHODS OF EXCISING THE UPPER JAW FOR CANCER.

Dr. William H. Pancoast, of Philadelphia, spoke at some length on this subject.

ADDRESS OF THE RETIRING PRESIDENT.

Dr. Stewart, in retiring, thanked the Society for the kindness and courtesy extended to him while in the President's chair.

ADDRESS OF THE PRESIDENT ELECT.

Dr. Stewart then introduced Dr. Andrew Nebinger, of Philadelphia, the President elect, who thanked the Society for the honor it had conferred upon him, congratulated the members upon the prevailing harmony and good fellowship, and asked their support in the discharge of his duties.

Resolutions were then adopted endorsing the Pennsylvania Institution for Feeble-minded Children, recognizing the ability of the Superintendent, Dr. Isaac Kerlin, and thanking that gentleman and the Board of Managers for their courtesy.

The resolutions were seconded warmly by Drs. Stewart, of Erie, Ellwood Harvey, of Chester, and Nebinger and Shoemaker, of Philadelphia. The Society then adjourned, to meet at Altoona on the third Wednesday of May, 1880. At the conclusion of the meeting the members of the Society were entertained by Dr. Kerlin.

On Saturday morning, at the invitation of the officers of the Camden and Atlantic Railroad, the delegates made an excursion to Atlantic City.

Correspondence.

KENTUCKY THE FIRST STATE OF THE UNION IN WHICH ANÆSTHESIA WAS EMPLOYED IN THE OPERATION OF OVARIOTOMY.

To the Editor of The Medical Record.

Dear Sir:—From reading the various interesting reports of the proceedings of the State Medical Society of Kentucky, which met at Danville, May 13th, to erect a monument to the memory of Ephraim McDowell, the first ovariotomist, I find no mention or allusion, not even in the masterly oration of Dr. Gross on the occasion, to a somewhat important event in the Kentucky history of this operation. I refer to the first employment of anæsthesia, which has contributed so largely, not only in our own country, but throughout the civilized world, towards perfecting the operation of ovariotomy, and leading to the brilliant results now embalmed in the hearts of hundreds of living women who would to-day be in their graves had it not been for the inestimable advantages of this agent. In a conversation last evening with my friend Dr. L. A. Sayre, President-elect of the American Medical Association, who was present at the Danville ceremonies, he informed me that no allusion was made by any one, on the occasion, to the circumstance of Kentucky being the first State to lead off in this operation with the use of anæsthetics; and this is my reason for trespassing on your kindness for a corner in your columns to present a few facts bearing upon the subject.

In October, 1846, sulphuric ether, or letheon, as then called, was first employed as a pain-destroyer in a surgical operation by Dr. Warren, of Boston. Only one operation of ovariotomy in this country was performed during this year, which was by Dr. John L. Atlee, before the date above given. In 1847 Dr. Robert Thompson performed the only operation for that year; but no mention is made of the fact that letheon was employed. Both operations unsuccessful. In November, 1847, Prof. Simpson, of Edinburgh, employed, for the first time, chloroform as an anæsthetic. On March 15, 1848, Dr. Clay, of Manchester, England, performed his first ovariotomy under the influence of chloroform—successful. On March 21st, six days afterwards, Mr. H. G. Potter, of Newcastle, performed a similar operation under the influence of chloroform—unsuccessful. On April 6th, sixteen days later, Dr. Henry Miller, of Louisville, Ky., performed in that city ovariotomy under the influence of chloroform, upon a woman from the State of Indiana —successful—second case in the world under anæsthesia. During this year there were three other ovariotomies performed in this country, though they were after Dr. Miller's. Only one of the three successful.

Now, owing to the shortness of the time between Dr. Clay's operation and that of Dr. Miller—twenty-

two days—and the great distance, with the Atlantic intervening, it was not possible at that date that there could have been any communication between these two surgeons as to the advantages to be derived from anæsthesia in the operation; and the inference is, that the latter acted entirely upon his own judgment in deciding to employ the agent, which had not been done before in this country.

Kentucky, therefore, in weaving her chaplet of laurels from the justly great operation inaugurated by the bold and fearless hand of McDowell, might have added to it also the one of Prof. Henry Miller, who, to say the least of him, was among the ablest contributors to the revival of the operation, and, as such, his memory is deserving of the highest recognition. The teachings of this able and good man still have a strong hold on the affections of his numerous pupils scattered throughout our broad country; and, as one of the number, I insist upon his claim to originality and superior judgment, as being the first to employ in his own country anæsthesia in the operation of ovariotomy.

The failure of Dr. Gross to mention the name of Prof. Miller in this connection, in his otherwise able and just review of the labors of other cultivators of the operation of ovariotomy since it was given to the world by Dr. McDowell, was due, no doubt, to an oversight of the dates above given, and not from any disposition to be unjust, as everybody knows.

The writer, at the time of Prof. Miller's operation, was a private pupil of Dr. Gross, and had been in the habit, almost daily, of administering for him chloroform in his operations; and it was from this circumstance that Prof. Miller invited him to give the anæsthetic to the patient in question, to which incident in the American history of ovariotomy he refers here with no little pride.

Very truly yours,

NATHAN BOZEMAN.

296 FIFTH AVENUE, May 27, 1879.

A REPLY TO "NONNE."

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your journal for May 3, 1879, appeared a letter, signed "Nonne," which directed the attention of the Committee of Ethics for the Medical Society of the County of New York, to certain alleged irregularities, and expressed the query, "Is that Committee dead?" etc. The Committee has waited patiently until the present date for either "Nonne," or any one who may feel himself seriously aggrieved, to prefer charges against any offender, and if needs be to instruct them how to act upon the question. The Committee is alive and prepared to do their duty, their whole duty, and nothing but their duty. Now that "Nonne" has not appeared, the Committee is willing to say that they are fully impressed with the belief that when a work is published, be it medical or otherwise, it becomes the property of the public, and as such, is subject to criticism by the press. If the editor is fortunate enough to gain a favorable report for his journal or his book, we do not consider him a subject of discipline by the Committee on Ethics.

If "Nonne," however, will present charges against the gentleman in question, and is prepared to substantiate the same, he will find the Committee on Ethics ready conscientiously to do their legitimate work.

"Nonne" has a right to his own views on this subject most assuredly, and if he desires to know whether a committee that has always endeavored to discharge its duty, is dead or living, let him prefer charges over his own signature, and a satisfactory answer can be immediately given.

Yours respectfully,

R. A. BARRY, M.D.,
Chairman Committee Ethics.

June 2, 1879.

Obituary.

JACOB A. WOOD, M.D.,

DIED at his residence, 45 Lafayette Place, New York city, on the 21st of March, 1879. His death was caused by organic disease of the heart, from which he had suffered for some time.

Dr. Wood was born in Hancock, N. H., May 10, 1810. He studied medicine with Dr. Twitchell, of Keene, N. H., and received his diploma from the Vermont Medical College (Woodstock).

After graduating, he practised for a few years in his native town. Subsequently he went to Boston, and while there began to give special attention to the treatment of Pott's disease. His reputation in that department soon became widely extended. He came to New York in 1858, since which time his brace has become quite generally known.

Dr. Wood was unpretending, and was eminently successful in his profession. He was a devoted friend and a true gentleman, and died greatly mourned by all who knew him well. At about the time of his death he was elected to membership in the Medical Society of the County of New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from May 25 to May 31, 1879.

Surgeons C. T. ALEXANDER and D. L. HUNTINGTON, and Asst. Surgeon H. LIPPINCOTT, appointed a board to assemble June 2d inst., at Military Academy, West Point, N. Y., for examination of physical qualifications of members of graduating class and of candidates for admission to Military Academy. S. O. 122, A. G. O., May 23, 1879.

STORROW, S. A., Major and Surgeon, relieved from duty at Fort Laramie, and assigned to duty as Post-Surgeon at Fort D. A. Russell, Wyoming Ter., relieving Major J. R. Gibson, Surgeon. S. O. 45, Dept. of the Platte, May 26, 1879.

O'REILLY, R. M., Capt. and Asst. Surgeon, McPherson Barracks, Atlanta, Ga. Granted leave of absence for one month, with permission to apply for an extension of one month. S. O. 84, Dept. of the South, May 28, 1879.

DE WITT, C., Capt. and Asst. Surgeon. Relieved from duty at Fort Fred. Steele, Wyoming Ter., and assigned to duty as Post-Surgeon at Fort Sidney, Nebraska, relieving Capt. C. E. Munn, Asst. Surgeon. S. O. 45, C. S., Dept. of the Platte.

LA GARDE, L. A., 1st Lieut. and Asst. Surgeon. Having reported in person at these headquarters pursuant to orders from Headquarters of the Army, assigned to duty at Cantonment on North Fork of Canadian River, Indian Ter. S. O. 101, Dept. of the Missouri, May 23, 1879.

Medical Items and News.

CONTAGIOUS DISEASES WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending May 31, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 24, 1879.	0	4	111	3	39	26	2	0
May 31, 1879.	0	2	112	8	40	24	2	0

JOHN TAYLOR CROOK, M.D.—At a meeting of the San Francisco Medical Benevolent Society, held May 21, 1879, the death of Dr. John T. Crook, late Secretary of the Society, was announced, and the following resolutions adopted:

Whereas, It has pleased our Heavenly Father to remove from among us, by death, our friend and fellow-member, John Taylor Crook, M.D., late Secretary of this Society; be it

Resolved, That we desire, as individuals and as a Society, to place on record our appreciation of the life and character of our deceased brother; that we call to mind with gratitude his labors as an officer of our association, and our regret at his untimely death.

Resolved, That our heartfelt sympathy is hereby tendered to the bereaved father and sister, as well as to the orphaned children, too young to fully appreciate their loss.

Resolved, That these resolutions be spread upon the minutes, and a copy of the same sent to the father of our deceased member. Also that they be published in the *Western Lancet* and the New York MEDICAL RECORD.

BENJAMIN R. SWANS, M.D.,
GEORGE H. POWERS, M.D.,
A. F. SAWYER, M.D., } *Committee.*

Attest: A.M. Wilder, M.D., *Secretary.*

ARKANSAS STATE MEDICAL SOCIETY.—STATE BOARD OF HEALTH.—At the Annual Meeting of the Arkansas State Medical Society, held at Little Rock, May 14 and 15, 1879, the portion of the President's address referring to a State Board of Health was referred to a committee, consisting of Drs. J. M. Keller, P. O. Hooper, W. B. Welch, D. A. Linthicum, and E. T. Dale. After careful consideration, the committee reported the following resolutions:

Resolved, That the President of the Society appoint nine members of the same, who shall act in the capacity of a State Board of Health as far as practicable, and under the sanction and co-operation of the State government.

Resolved, That said committee or State Board of Health shall organize by the election of a president and secretary, and shall endeavor to secure membership in the Mississippi Valley Inter-State Sanitary Commission on the same footing as the State Boards of Health.

Pursuant to the foregoing resolutions, the President appointed as said board Drs. E. R. Du Val, Fort Smith; J. B. Cummings, Forest City; W. M. Lawrence, Batesville; E. T. Dale, Texarkana; D. A. Linthicum, Helena; J. A. Dibrell, Jr., Little Rock; A. L. Breysacher, Little Rock; J. T. Hamilton, Pine Bluff; and L. P. Gibson, Little Rock.

On motion of Dr. Welsh, the President, Dr. A. A. Horner, was added to the State Board of Health.

The committee, representing a State Board of Health, immediately organized by the election of Dr. A. L. Breysacher, President, and Dr. J. A. Dibrell, Secretary.

PHILADELPHIA ACADEMY OF SURGERY.—A movement has been for some time past in progress among the well-known surgeons of Philadelphia, such as Professors S. D. Gross, D. Hayes Agnew, and Jno. Ashhurst, Jr., looking towards the foundation of a society for the reading of papers on, and discussion of, surgical matters. After several informal meetings at one another's houses, it has been decided to hold a business meeting early in June, at which a constitution may be drawn up and officers elected. It is proposed to put the "Academy of Surgery" on a similar footing with the "College of Physicians" of Philadelphia. The project has our best hopes for its ultimate success.

PRELIMINARY MEDICAL EXAMINATIONS IN THE UNIVERSITY OF PENNSYLVANIA.—The last edition of The Catalogue of the Medical Department, that for May, 1879, contains the following interesting announcement: *For entrance at the coming session* (1879–80) *no preliminary examination will be required, but in th fall of* 1880 (*session of* 1880–81) *a preliminary examination will be instituted, which every candidate, who has not previously received a collegiate degree, must pass.* The applicant will be required: *first*, to write a brief essay, not exceeding a page of foolscap, which will serve as a test of his qualifications in orthography and grammar; *second*, to undergo an examination in the elementary principles of physics, as contained in Fownes's Chemistry; *third*, to pass an examination in easy Latin prose translation (*First Book of Cæsar's Commentaries*). In lieu of Latin, any language other than English may be substituted.

THE second series of the Mütter Foundation Lectures for 1879 (surgical pathology) is now in course of delivery at the Philadelphia College of Physicians. The lecturer, Dr. Samuel W. Gross, delivered the first two lectures on Tuesday and Friday evenings, May 27th and 30th. The last two will be delivered on June 3d and 6th. The subject of this second course is: The Histology, Genesis, Pathology, Differential Diagnosis, and Treatment of Fibromas, Sarcomas, Myxomas, Adenomas, and Carcinomas of the Breast. The entire series, first and second (ten lectures in all), will be published in the form of a monograph at an early date by the author.

INHALATIONS IN THE TREATMENT OF PULMONARY DISEASES.—In that form and stage of chronic bronchitis characterized by an excessive purulent or mucopurulent expectoration, an inhalation of steam impregnated with the vapor of carbolic acid and camph. tincture of opium will be found to afford prompt relief to all of the immediate symptoms, the carbolic acid acting as an antiseptic, while the moist warmth and the opiates allay local irritation and the resulting cough. The formula which I am in the habit of using is as follows:

℞. Acid carbolic, cryst..... grs. xxx.
Tr. opii et camph. ..... ʒ iij.

M. Sig.: One teaspoonful in half a pint of hot water, to inhale as directed.

Another stage of chronic bronchitis is distinguished

by a harsh, hard, irritative cough, and little or no expectoration. Such portions of the respiratory mucous membrane as can be brought within view present a pale, anæmic, and dry shrivelled appearance. Here we require, locally, a combination calculated to stimulate free capillary circulation and secretion, and also to exert the soothing anodyne influence necessary to control cough. For this purpose we have found the following combination to answer exceedingly well:

R. Oil of Scotch pine..... ʒ j.
Camph. tinct. of opium..... ʒ iij.
M. Sig.: One teaspoonful in half a pint of hot water, to inhale as before.

For the oil of Scotch pine almost any of the oleoresin, balsamic preparations may be substituted.—F. H. Devis, M.D., Chicago, Ill., in *Detroit Lancet*, May, 1879.

College of Physicians and Surgeons.—The changes in the Faculty at the College of Physicians and Surgeons, Med. Dept. of Columbia College, are as follows: Dr. Henry B. Sands has been associated with Dr. Thomas M. Markoe in the chair of Surgery, Dr. Markoe assuming the title of Professor of the Principles of Surgery, and Dr. Sands assuming the title of Professor of the Practice of Surgery. Drs. T. Gaillard Thomas and James W. McLane, lately styled Professor and Adjunct Professor, respectively, of Obstetrics and the Diseases of Women and Children, have assumed the titles—Dr. Thomas, of Professor of Gynæcology, and Dr. McLane of Professor of Obstetrics and the Diseases of Children. Dr. Thomas T. Sabine, lately Adjunct Professor of Anatomy, has been appointed Professor of Anatomy, vice Dr. H. B. Sands, resigned; and Dr. William T. Bull has been appointed Assistant Demonstrator of Anatomy, vice Dr. Charles Kelsey, resigned.

Cerebro-spinal Meningitis.—Dr. J. H. Strangher, of Lexington, Mo., writes that Dr. Lee Alexander, of Marshall, Mo., treated cerebro-spinal meningitis as follows, with great success: Resolved to try something, as all previous plans had proved unavailing, the patient's body was entirely anointed with oil of turpentine; and then, with the exception of the head, to which ice was applied, he was immersed in a barrel of water as hot as could be borne by the hand. The bath was continued for fifteen minutes, and repeated every hour until relief came to the patient, which was usually so marked that for the second bath it became necessary to arouse him. The tetanic symptoms were usually relieved by the first immersion, and subsequently the bath was called for by the patient. The internal treatment consisted of turpentine in 15–25 drop doses, bromide of potassium 15–20 grain doses, gelsemium, beginning with doses of 8 to 10 drops, and increasing until double vision occurred, and blister to the nape of the neck. He claims twenty-two recoveries out of twenty-three cases. The only untoward symptom developed during treatment was epistaxis in a child two years old, which subsided as soon as the gelsemium was discontinued, it having resisted all the usual remedies.

The Use of Calcium Sulphide in the Treatment of Inflammations of the External Auditory Meatus.—Dr. Samuel Sexton, in a paper published in the January (1879) number of the *American Journal of Otology*, gives his own observations on the use of this drug in the painful affections alluded to. Dr. Sexton states that in furuncular inflammation of the meatus the sulphide can be used to advantage when suppuration threatens, or even after it has occurred. He has frequently observed furuncles, under the use of this remedy, to abort and dry up without discharge of pus. In some instances he relies entirely on the remedy in the treatment of inflammation of the ear. The prevention of a continuance or a return of furuncles, etc., by this remedy he regards as very clearly possible, provided no remote cause be left. The dose which Dr. Sexton has found most available is one-tenth of a grain, to be given every two or three hours in urgent cases. In cases with a tendency to chronicity, with less frequency. In children the dose should be less; an adult dose being diffused in water, the amount given can be easily graduated. The medicine is more agreeable when triturated with sugar of milk, when it may be given dry on the tongue.

Dentists in Holland.—Up to the present time only physicians provided with diplomas have been allowed to exercise the art of dentistry in Holland, but a law was recently passed which does away with this excessive restriction, while it at the same time secures sufficient guarantees for the public safety. The aspirants for the diploma of dentist, under the new law, must pass a special examination in the anatomy and physiology of the teeth, gums, and alveolar processes, on the local remedies in use for diseases of the teeth, and in operative dentistry and the preparation of false teeth. The illegal exercise of the art of dentistry is punished by a fine of from $12.50 to $50.00, and imprisonment for one to six months. These penalties will also be inflicted on any dentists who employ anæsthetics, such as chloroform and nitrous oxide, or who prescribe internal remedies, as well as on those who attempt to sell any drugs, except ordinary dentifrices.

The Massachusetts State Medical Society holds its annual meeting in Horticultural Hall, Boston, June 10th and 11th.

The Maine State Medical Society holds its annual meeting in the city of Portland, beginning June 10th.

BOOKS RECEIVED.

Handbook of Diagnosis and Treatment of Diseases of the Throat and Nasal Cavities. By Carl Seiler, M.D. Philadelphia: Henry C. Lea, 1879.

Atlas of Histology. By Klein & Smith. Part III. Philadelphia: J. B. Lippincott & Co.; London: Smith, Elder & Co., 1879.

Guide to Therapeutics and Materia Medica. By Robert Farquharson, M.D., Edin., F.R.C.P., Lon. Adapted to the U.S. Pharmacopœia, by Frank Woodbury, M.D. Philadelphia: Henry C. Lea, 1879.

Lectures on Syphilis of the Larynx. By W. MacNeill Whistler, M.D., M.R.C.P. London: J. & A. Churchill, New Burlington Street, 1879.

Transactions of the American Gynæcological Society. Vol. iii., for the year 1878. Boston: Houghton, Osgood & Co.; the Riverside Press, Cambridge, 1879.

The Laws of Therapeutics; or, the Science and Art of Medicine. By Joseph Kidd, M.D. Philadelphia: Lindsay & Blakiston, 1879.

Ophthalmic Out-patient Practice. By Charles Higgins, F.R.C.S. Second Edition. Philadelphia: Lindsay & Blakiston, 1879.

Hearing and How to Keep it. By Charles H. Burnett, M.D. Philadelphia: Lindsay & Blakiston, 1879.

Diseases of the Rectum. By William Allingham, F.R.C.S., London. Third Edition. Partly rewritten. Philadelphia: Lindsay & Blakiston, 1879.

Original Lectures.

ADULT CHOREA—SYPHILITIC BRAIN DISEASE—BRAIN TUMOR.

A Clinical Lecture Delivered at Charity Hospital,

By A. McLANE HAMILTON, M.D.,

VISITING PHYSICIAN TO THE HOSPITAL FOR EPILEPTICS AND PARALYTICS.

Lecture IV.

(Reported for The Medical Record.)

Gentlemen: The contortions and grimaces displayed by the woman before you are certainly suggestive of an intensely dramatic and eccentric nervous disease, and among the disorders of motility, chorea occupies a prominent and interesting place. Our first patient is a middle-aged woman who, eight or ten years ago, and without any special cause, unless mental excitement and previous grief may be assigned as such, developed a disease which is rare in adults, but very common in infancy.

She has been under observation for the last six or seven years, and during that time her disease has undergone various modifications. At one time the movements were completely extinguished and recovery was supposed to have taken place. She now has peculiar contortions of the face, shown mostly about the mouth, which is puckered spasmodically, and she seems to forcibly smack her lips. On account of this embarrassment of movement she is entirely unable to talk, stammering and spasmodically uttering her words in a manner almost unintelligible. Her right arm, you will notice, is moved in irregular way, there being present a condition which is symptomatized by clonic spasms. Her right hand is swayed backward and forward, the movements of flexion being much more marked and decided than those of extention.

There is considerable loss of power on the right side, but there is no disturbance of sensation. Her general health is apparently unaffected.

On auscultation no cardiac murmur can be detected; such murmurs, as you already know, being very commonly present in cases of infantile chorea. This case differs in many respects from chorea ordinarily seen in general practice. Adult chorea, beginning late in life, is quite rare, and differs very decidedly in its pathology from that of early life. In childhood there is a superabundance of nerve-force, which, as a rule, in the normal state, finds expression in muscular movements connected with emotional exhilaration within moderate limits. But if there be slight departure from the normal condition to a state of irritability of the nervous centres, such irritability is attended by uneven discharge of nerve-force, and a pathological condition of motility often grows insensibly out of what may have been in the beginning simply a physiological one. In the chorea, then, which occurs after the age of twenty, unless the disease be hysterical or epidemic, we should always suspect the presence of organic nervous disease, especially of the cortex cerebri.

It was only a few weeks ago that a woman, who was well known to many of the visitors of the hospital, died after being affected with the disease for twenty or thirty years. Her movements were somewhat like those presented in the patient before you, but much more violent. Her arms were forcibly extended, her fingers were interlocked, her body was bent over, her head was agitated chiefly by the muscles of the anterior part of the neck. While she was kept in a state of constant agitation, her fingers were interlocked, she threw her arms about violently, doing injury to herself and to those about her. Treatment had been of no effect whatever, and, from a condition of apparent general health and fair intelligence, she descended until she became completely demented. After death, the convolutions on either side of the fissure of Rolando were found to be atrophied and the seat of sclerosis, while spots of sclerosis were scattered through the motor tract of the entire brain. In most of these cases such cortical changes will probably be found.

Another class of rare cases of chorea are those connected with pregnancy, and here the disease usually disappears before parturition. Jaccoud considers this form of chorea to be an unusually grave one, but such has not been my experience. In several cases that have come under my observation, the women have gone to full term and given birth to healthy children.

It is rare for the chorea of infancy to continue after the twentieth or twenty-fifth year. A few such cases may be seen, but when they are encountered, I am convinced that the disease is not the ordinary form which occurs among children, but rather one of a symptomatic nature.

Sometimes you will find a variety of chorea which appears in girls at about the time of puberty. It is decidedly hysterical in character, is associated with menstrual disorder, ovarian tenderness, and decided emotional disturbances. Under appropriate treatment it disappears in a very short time, and rarely recurs, though in some of the extraordinary cases reported by Continental writers, chorea may be a feature of hystero-epilepsy. The form of which I spoke in a previous lecture is interesting in a diagnostic point of view, but confusion need but rarely occur, as it is always preceded by hemiplegia or some form of paralytic seizure.

In this case, arsenic, strychnia, and more lately the dracontium, as recommended by Wood, have been given with no good results whatever, but from the persistence of her symptoms, I am convinced the condition has long passed the stage which might be called functional disturbance.

SYPHILITIC BRAIN DISEASE.

Here, gentlemen, is a patient who has just entered the hospital. She is probably between fifty and sixty years of age. It is impossible to get from her any history, as her mind, evidently, is decidedly impaired, and she appears stupid and dazed by her new surroundings. Let us examine her motility. You will observe that there is right facial paralysis; that the left corner of her mouth is drawn up; and that her tongue, when protruded, points to the right side. You will also notice that her pupils are unequally dilated, the right being very much smaller than the left; in fact, the right pupil is unusually small.

Her left side, you will observe, is the seat of hemiplegia which is not very profound, but it is probably of long standing, for there is rigid flexion of the forearm, and decided rigidity and tension of the tendon of the biceps, showing that secondary degeneration has taken place. As we examine the right side we also find that it, to a certain degree, is rigid, and the tendon reflex may be very easily produced. In fact, the tendon reflex is pretty generally exaggerated, for when Dr. Claddek strikes any of the tendons there is a violent movement. This has been found to exist

in hemiplegic cases most markedly upon the paralyzed side. In this patient it exists to some degree upon both sides, showing that the lesion is either a double one or affects some locality producing bilateral trouble.

When she attempts to answer my questions it is to be noticed that her speech is decidedly affected, the labials being badly pronounced. As a cause for this, you will observe that there is some ataxia, especially in the movements of the lips. No history has come with her, consequently it will be necessary for us to carefully examine for any indications of a predisposing cause. They are present. Upon the left side of her head there is a bald spot, the result of alopecia areata. As we examine the skin we find cicatrices, some of them over the back and the breast, but the greater number upon the anterior aspect of the legs. Irregular elevations along the course of the tibiæ suggest the existence of nodes. There is, therefore, but little need of searching farther for the probable cause of the condition from which she is suffering. Her trouble, doubtless, has a syphilitic origin. Our suspicions are strengthened very much by the appearance and the grouping of the symptoms. Irregular paralysis, headache, unequal dilatation of the pupils, ataxic speech, and the chronicity of the attack, all go to confirm the diagnosis.

You will find in practice that irregular paralysis of the cranial nerves, mental decay of the kind found in this case, and rapidity in the expression of symptoms, usually point to syphilitic neuroses.

From the peculiar speech involvement, the bilateral trouble, and the uneven contraction of the pupils, it is probable that there is a lesion at the posterior and basal part of the brain as well as others more anteriorly. The condition of the patient's mind is very suggestive of cortical disease, the vertical gray matter often being affected in brain syphilis.

We shall first endeavor to improve the patient's general condition, for she has evidently been neglected. After this I shall administer the "mixed treatment," which is better than any other in these cases.

Now, here is another case of syphilitic disease of the brain, which is very interesting. It is a case of alternating hemiplegia, the patient having had attacks of hemiplegia at different times on both sides, there being a slow development of the paralysis and some amelioration before the occurrence of the second attack. In this case there is aphonia, apparently of central origin, but there is no local ulceration of the vocal cord. It has improved somewhat under specific treatment, as has her paralysis, which you see is irregular. This woman's eyes present the evidences of old iritis, which it is not difficult to detect in such patients.

The peculiarity of all of these cases is, that the symptoms are very likely to undergo a remarkably rapid alteration in character. Spontaneous changes seem to occur, and are undoubtedly due to deposits which are partially absorbed, or endoarteritis of irregular course. As a rule, syphilis attacks the dura mater and convexity of the brain, and is in nine cases out of ten the cause of the monoplegias; and is rarely unaccompanied by mental decay. In both of these patients the cerebral syphilis did not appear until eight or ten years after the primary sore. Fournier fixes the limit for the development of brain syphilis between the third and twenty-eighth years after infection, but I think symptoms of cerebral trouble are very rarely expressed until after at least eight or ten years. If the patient be not taken in hand at once the prognosis is bad, and I have found that in proportion to the degree of mental trouble, so will the unfavorable character of the prognosis depend.

BRAIN TUMOR.

The next patient I will present is one of a kind which puzzles the neurologist more than almost any other, and diagnosis is certainly always difficult, and sometimes impossible. She is, as you see, a middle-aged woman, and the chief features of her case are convulsions of an epileptic character, a certain amount of muscular weakness in the lower extremities, occasional variations of hyperæsthesia, and double optic neuritis. These symptoms were manifested slowly; convulsions appearing first. Soon after their onset she began to suffer from loss of vision, and for the last three years she has been entirely blind. When her eyes were examined with the ophthalmoscope it was found that marked retinal change had taken place. The veins were distended and irregular in their course, while the optic discs had lost their character, had changed in color, becoming pale, while at certain points the evidence of hemorrhage is very perceptible. This woman's pupils undergo decided variation in size, but they are usually widely dilated. She complains of intense headache, more severe upon the left than upon the right side, and she suffers quite frequently from distressing vertigo. Her taste and smell are very decidedly impaired, and although ammonia produces lachrymation, it does not always cause distress. She cannot distinguish pepper, although she feels the prickling on the tongue after its application. She is deaf in the right ear. Her convulsions are not so frequent as they formerly were. They have sometimes occurred without loss of consciousness, and are always decidedly irregular in character. From all the evidences in this case, from the optic neuritis, which may, but rarely does occur from upper brain tumors, from the deafness, and from the staggering gait, it is very probable that she is suffering from a tumor which is situated at the base of the brain. The convulsions, the optic neuritis, the headache, the cranial nerve paralysis, and one other symptom from which our patient has not suffered, namely, cerebral vomiting—all point very strongly to tumor of the brain, although it is somewhat difficult to make out its exact location. According to the recent investigation of Ferrier and others, loss of smell and hearing follow destruction of the temporo-sphenoidal convolutions, and it is very probable that such is the situation of the lesion in this case.

Antiseptic Treatment of the Genital Canal in Women.—The following is Schucking's method of procedure: Immediately after delivery he wipes out the vagina with a tampon of cotton dipped in a five per cent. solution of carbolic acid; after this he carries up to the fundus of the uterus a uterine sound enveloped in gauze previously soaked in the same solution. Then, by means of an irrigator, which is connected with the uterine sound, the uterus and the vagina are thoroughly disinfected. He finally fills the irrigator with a solution containing 10 per cent. of the sulphite of soda, and 5 per cent. of glycerine; this is destined for permanent irrigation. Every twelve hours he removes the sound with the gauze enveloping it, and replaces it by another sound prepared in the same way. At the same time he repeats the carbolic acid injection, and follows it as before with the soda solution. The duration of the treatment varies according to the necessities of each particular case.—*Gazette Obstétricale.*

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEORGE M. BEARD, M.D.

(Continued from No. 4, page 77, January 25, 1879.)

II.

WHEN ARE INVOLUNTARY SEMINAL EMISSIONS PATHOLOGICAL?

That this question is one of great difficulty and of great importance in its relations to the nervous system, will be denied only by those who have not given it careful thought and study. The exhaustive and independent investigation of even a few cases of nervous disease, complicated with seminal emissions, suffices to prove the inadequacy of all attempts to solve the problem through any arithmetical formula; to say, as the authorities do, that an emission two or three times a week is physiological—that is neither a result or cause of disease—is to make a statement that is not supported by verifiable facts, for emissions even less frequent are certainly both the results and causes of nervous morbid symptoms, and are therefore as truly pathological as too frequent urination or defecation.

It may perhaps be possible to move in the direction of the truth on this subject, even if we do not quite reach it by the following analysis:

INVOLUNTARY EMISSIONS ARE PATHOLOGICAL—THAT IS, CAUSES OR RESULTS OF DISEASE.

1st. When they are followed by headache, languor, depression, nervousness, and pain, local or general.

That such morbid nervous symptoms do result directly and solely from involuntary emissions, entirely independent of the fear or expectation of the patient, is as demonstrable as that such symptoms follow excessive physical or mental exertion; for all of these sufferers are not, as is currently supposed, and often stated, hypochondriacs; many of them are as calm and as philosophical as patients of any other class.

Hypochondria, although a very frequent accompaniment of these disorders, is not essential to them in all stages; and in some cases is not found at any stage.

Even in the married, these effects of involuntary emissions are noticed; and, besides other symptoms of nervous disease that happen to be present, are liable to be aggravated after occasional emissions. These nervous symptoms sometimes appear when the emissions are quite infrequent, while in other cases they are not observed when several discharges occur monthly. There can, indeed, be no mathematical law that will apply to all cases. What is physiological—that is, consistent with average health—neither a result or effect of disease—may be to another pathological; consequently, each case must be studied by itself. In some cases involuntary emission, like coitus, is followed by a feeling of relief and healthful sedation. One of my cases, long troubled with symptoms of sexual neurasthenia, is always very much better for several days after an emission, which occurs but occasionally.

2d. When, after long intervals, they occur several times a night, or a number of nights in succession.

Many of my cases have this experience; they may go for a week or for two weeks without any trouble, when, either with or without any exciting cause, a volley is discharged, and for a day, or several days, they are nervous, irritable, neurasthenic, or certain special symptoms—such as sweating of the hands, agoraphobia, and aching of the loins—are made worse.

This phenomenon is never physiological, any more than an attack of diarrhœa is physiological; it is both a result and a cause of morbid states, either local or general. It may not be of a serious or terrible character. It may be a condition that time and nature will cure; but it is none the less, so far as it goes, a disease.

3d. When the emissions are induced by slight reflex irritation, or, subjectively, by mind acting on body.

A patient now under my care for sexual debility had an emission while sitting in a barber's chair; the result of the friction attending the operation of shampooing the head. This man is not often troubled by emissions, although he has other signs of genital disorder; but in this instance the emission was certainly pathological, and could not have occurred in a perfectly healthy individual. Curling mentions a similar instance of emission following reflex irritation. In a case of facial spasm that I was treating by large doses of conium, in combination with electricity, two emissions occurred while riding in a street car. The patient was reading a paper, not thinking of himself or of sexual matters. He is a person of more than average vigor, and is married, and not accustomed to involuntary emissions. It is probable that the conium long continued had produced its physiological effects, relaxing the muscular system, and that the excitation produced by the jolting of the car was sufficient to act as an exciting cause. The conium was stopped, and he has not since been troubled.

In this line come those quite common cases where the discharge comes before intromission, from the mere touch or contact, or from the friction of the clothing. Phenomena of this kind occurring rarely or often—once a week or once a month—are pathological; just as incontinence of urine is pathological, and, like that condition, may require treatment.

It is a morbid symptom when mental influence alone, without any external irritation, direct or reflex, brings on an emission. A physician, who consulted me in regard to himself, observed, as one of the earlier indications, that something was wrong with the nervous system, that simply hearing by accident amatory conversation in an adjoining room brought on an emission. The same gentleman also noticed as another morbid symptom, that very trifling mental excitation caused a slight discharge from the penis—weeping of the prostatic and Cowper's gland fluids; and that this was an indication of nervous disease subsequent history established; for a degree of genital debility, together with general nervousness, made it necessary for him to seek advice and treatment, as a result of which the parts quickly improved in tone.

This gentleman, I may say, was of mature years, clear-headed, and in no sense imaginative, and of a very large professional experience—less likely than many others to observe wrongly in these matters.

This weeping of the penis on mental excitation is not of course true spermatorrhœa, as the laity suppose, but it is pathological, a sign of genital weakness, and may or may not be the precursor of more serious symptoms. A patient of mine was so annoyed by these diurnal discharges appearing after and on very slight excitement, as during a bath even, that I told him to save some of the fluid, and have it examined by the microscope. It was found that it con-

tained no semen, but the fluid of the prostate and Cowper's glands.

4th. When they accompany or follow acute or chronic disease, and disappear with the disease.

Spinal cord affections in certain irritative stages and various febrile maladies have involuntary seminal discharges as one of their results, which results cease or are modified by the disappearance of the cause. The discharges in such cases are not always very frequent, but they are pathological, not physiological.

5th. When they take place in connection with any of the stages of impotence, and even when there is opportunity for frequent intercourse.

Those in whom the emission is too early after introduction, or who cannot have coitus frequently, are often annoyed—whether married or unmarried—by these involuntary discharges. With increase of tone, both the emissions and the lack of genital power disappear.

Quite a large number of cases of emissions appearing in this way in the married have been under my care. Indeed, I have never seen worse cases than some of those who are married.

6th. When the emissions occur at stool—diurnal pollution; or flow out with the urine—true spermatorrhœa.

If the urine of patients complaining of sexual debility be carefully and frequently examined by experts with a microscope, it will be found that true spermatorrhœa,—real flowing away of the spermatozoa with the urine,—is more frequent than any of us have suspected. A single examination, however carefully made, is not sufficient to disprove the existence of true spermatorrhœa; for, like the other morbid ingredients of the urine, the spermatozoa and spermatic globules are not necessarily found in every examination in any patient in whom the disease exists.

They might be found after an erection or excitement of any kind, when at other times they would not appear. Thus, in one of my cases two examinations brought no evidence of spermatorrhœa, but one made after an erection, though not after an emission, demonstrated, beyond any question, the existence of the disease. The history and symptoms of the case were in entire harmony with this diagnosis. The details of the case, which are very remarkable, will be published subsequently. No one, probably, will claim that the existence of spermatozoa in the urine is normal, and if they are found even in one examination out of six, it would indicate a pathological state. It is certain that examinations made in the way here described prove the existence of this condition in quite a considerable proportion of patients of sexual exhaustion. In cases where emissions are not especially frequent; in cases even where they are quite rare, spermatozoa and spermatic globules are sometimes found. But they are never found—according to my experience—in persons who are otherwise healthy; they are always accompanied with some vice or with a number of the symptoms of sexual exhaustion; for example, palmar hyperidrosis, anthropophobia, or fear of society, or agoraphobia, asthenopia, atonic voice, or impotence in some one of its stages, pain and weakness in the dorsal or lumbar spine, spinal irritation, frequent micturition, oxaluria, mental depression. A recent authority on these subjects states in substance these two propositions: first, that true spermatorrhœa is rarely seen even by specialists; secondly, involuntary emissions occurring two or three times a week are not pathological. Neither of these propositions is quite correct. They are suggestions or adumbrations of the truth, rather than the truth itself. If the spermatozoa are not more frequently seen in the urine, it is partly because they are not more frequently looked for; and the frequency with which emissions occur is but one element, and that a minor one, in determining the question whether they are or are not pathological.

The facts here stated are so opposed to the almost unanimous teachings of all the writers upon these subjects, that it is proper to explain under what circumstances the examinations of the urine were made. In order to guard against the error which might come from the microscopist seeing what he expected to see, I sent the specimens of urine to Dr. Mittendorf, without giving him any information in regard to the patient. In the majority of cases he did not know what symptoms the patient had, or what sex, age, or condition the specimen represented.

Different forms of disease—kidney and bladder, and various phases of neurasthenia and other nervous diseases—were sent, at some times promiscuously; and it is an interesting illustration of the precision that this branch of science has attained, that with all the sources of error thus eliminated, no demonstrable mistake has ever been made.

But morbid emissions and true spermatorrhœa, though more frequent than is believed in the profession, are not always such terrible diseases as the laity believe; they are conditions that by proper management are relievable and curable.

These general principles are illustrated in the history of the following cases:

Case VII. A young gentleman, 27 years of age, consulted me for seminal emissions, with various symptoms of nervous exhaustion associated. The emissions were not very frequent, sometimes not as often as one a week; sometimes two or three followed each other on successive nights.

The appearance of the gentleman would indicate pretty fair health, and yet there was, as is often found in cases of neurasthenia, a degree of insomnia and mental depression. There was no real hypochondria, no disposition to magnify, or, to any great extent, to worry. There was the usual history of masturbation in his youth, but it had not been carried to very great excess. There was also the very common symptom of sweating of the palms of the hands. His circulation was not entirely good. Here was evidently a pathological state, though not of the severest order. Although the emissions were not frequent, yet they came in such a way that they had both temporarily and permanently injurious effects, for he was always worse in the mornings after there had been the involuntary emission. There was true spermatorrhœa. The nervous sensitiveness of the patient was illustrated by the fact that there was a tendency to faint on the application of the faradic current of electricity. The galvanic current, which is usually more powerful, had no such effect. He was treated with central galvanization, general and local faradization. The localized faradization was used externally and internally; he was treated on the principle prescribed in the first series of this paper. The result in a few weeks was an entire cure, which, as I afterwards learned from the patient, was permanent.

The above case illustrates two points: *First*, involuntary emissions, even when pathological, are not necessarily accompanied by hypochondria; *secondly*, they can be controlled by treatment even when the patient remains unmarried. In some cases involuntary emissions have been cured by treatment, although the accompanying symptoms of nervous debility were unaffected.

The patient has occasional emissions now, but they are not sufficiently the cause or effects of disease to require treatment.

The noteworthy fact in this case was, that the improvement took place while the patient remained unmarried. The indiscriminate prescription of marriage for all such cases, and all cases of sexual exhaustion, is oftentimes impracticable, usually unnecessary, and sometimes unscientific. All or nearly all cases can be helped without resorting to marriage, while in some instances marriage is to be for a time deferred. The large number of cases of involuntary emissions and impotence in the married is the best of all arguments against urging marriage as a specific for all forms of genital weakness. Marriage is sometimes a good hygenic remedy for hysteria in women, as it is sometimes for sexual debility in men; but it is no more a specific for the one than for the other.

Case VIII.—A lad, 18 years of age, consulted me in the fall of 1878, for the following symptoms: Sweating hands (palmar hyperidrosis), dilated pupils, downcast eyes, anthropophobia or morbid fear of society, mental depression and a tendency to jerking of the limbs, not only at night, but even when sitting or standing. Even when sitting in the office while being treated, his feet would involuntarily move up and down. There was also the redundant prepuce, but not real phimosis. There was the almost invariable history of masturbation, begun at the age of thirteen or fourteen, and there was the usual results. The involuntary emissions came on only at night, were regular in appearance, and were not usually more than six or eight times a month. They were followed frequently by pains in the back and by aggravation of all the other symptoms of which I have spoken. In this case there was a certain degree of hypochondria, but it was not of a profound character. The patient was treated electrically in central and local methods, with hypodermic injections of atropia; internally by gelsemium, zinc, arsenic, and other sedatives. I lost sight of the patient before wholly restored, but he was under observation long enough to reduce the emissions in frequency, and especially to mitigate the evil effects that followed them.

In the above case the frequency of the emissions was certainly not great. According to the authorities, the patient was not in a pathological state, and yet, if the above symptoms did not indicate disease, certainly no symptoms can indicate chronic functional nervous disease. After allowing all that can possibly be claimed for the action of the mind on the body in producing disease, there remains clear proof of the actual influence of sexual disorder, producing a group of nervous symptoms independent, or at least partly of the mind—the fear, the expectations of the patient. The group of symptoms by which we are wont to diagnose such diseases, for example, as locomotor ataxy, spinal paralysis in children, hay-fever or small pox, and diphtheria, are not more truly diagnostic of those diseases than is the above group of symptoms diagnostic of sexual disorder. When a man has these symptoms together, either alone or in conjunction with others, which will be mentioned in the course of these articles, the diagnosis, neurasthenia of a sexual origin, can be made without hesitation, whether the involuntary emissions are frequent or infrequent. In the majority of these cases the involuntary emissions occurring rarely, or infrequently, follow the stopping of the habit of masturbation, and themselves act as causes of nervous symptoms. The whole system becomes involved; the treatment therefore should be general as well as local.

That involuntary emissions may occur in the married as well as in the unmarried, or those who have full opportunity for normal coitus, is illustrated by the two following cases:

Case IX.—A number of years ago a young gentleman, about 30 years of age, who had been several years married, consulted me for very frequent-occurring emissions at night. He was of a very slight build, of the nervous diathesis, and, at times, had been excessively indulgent. There had also been self-abuse in early years. The involuntary emissions would appear, even when a few nights before there had been opportunity for emission in the natural way. He did not have all the symptoms connected with the emissions that sometimes is seen in unmarried young men. He was not at all hypochondriacal. I treated him for a considerable time by the sounds, by electricity connected with the urethral sounds, by central and general application of electricity, and a part of the time by sedative and tonic medicines. The case was more obstinate than oftentimes similar cases are in the unmarried. He did not respond rapidly to the treatment employed. But after a number of weeks the improvement was of so positive a character that it was deemed no longer necessary to continue the external applications; tonic medicines were advised for some time.

In the above case the emissions were certainly pathological. They were the results of a debility—a relaxed and congested condition of the orifice of the prostatic region of the urethra.

Case X.—Last year I was consulted by a gentleman in the beginning of middle life; unmarried, but had abundant opportunities for sexual intercourse; with symptoms of impotence of the first stage and involuntary emissions, unless he frequently indulged. If a week or two passed without coitus, involuntary emissions would appear at night. He was a gentleman of unusual strength, and had been accustomed to great freedom in sexual intercourse. The symptom for which he required aid was merely the beginning of impotence. He could not indulge so frequently or so satisfactorily as formerly. The disease in his case was purely local. There were absolutely no general nervous symptoms. There was not a trace of neurasthenia. In that respect the case is an interesting contrast to those above detailed in these papers. With persons who are strong, tough, wiry, excess makes itself felt, locally and not generally or constitutionally. He did not have any of the group of symptoms which I have stated as diagnostic of neurasthenia depending on sexual excesses. There was no sweating of the hands, no physical debility, no anthropophobia, aversion to society, no morbid fear of any kind, and not the faintest degree of hypochondria. He studied his symptoms calmly, sensibly, philosophically, and he desired relief both for what he already experienced, and for what he feared as a result in case he neglected himself. Locally, it was found on examination that the penis was cold at times, and on passing the sound with care blood would always appear, evidently coming from the prostatic region of the urethra. The patient was treated by the use of the sounds, by electricity, by the zinc combination, ergot, belladonna, and cantharides in very small doses. Chloride of gold was also employed, and at one stage damiana; at the same time it was especially insisted that abstinence for a time should be observed. The patient faithfully carried out every direction, and was rewarded by improvement of the most satisfactory character. He was warned against indulging as formerly.

He is still taking treatment a portion of the time. The only relapse that he experienced was for a period

of relative excesses, when he thought that his recovery was absolutely permanent.

In this case the involuntary emissions were surely of a pathological character, as is proved by these facts: First, they did not exist prior to the first stage of impotence. A person in general health, general and local, will not have emissions several times weekly, when he has frequent opportunity for normal intercourse. Secondly, these emissions appeared with the symptoms of impotence. Thirdly, they have disappeared with the improvement of the local condition of the patient. In the same case the entire absence of emissions might be required as a pathological symptom, as indicating a degree of impotence not necessarily absolute, but a torpid condition of the parts. This condition is observed sometimes after many years' kept-up habit of masturbation, and sometimes after very prolonged continence. The following case illustrates this:—

Case XI.—A gentleman about forty-one gave me this history. He began the habit of self abuse at the age of sixteen, kept it up a few years, then occasionally went with women. For twenty years he had been entirely continent. The emissions which he had had at one time disappeared. There was very much diminished desire, and scarcely ever any involuntary emissions. He desired to get married, and hence sought advice and treatment. There was a very much elongated prepuce, which, however, could be pushed back, and kept back, as it can in some of these cases, by a little effort. There was slight paresis of the bladder, with frequent micturition. The nervous symptoms were not very marked. There was an abnormal or mental irritability, a very frequent result of the sexual disturbances. Otherwise the person was in fair and enviable health, weighing about 155 pounds; a good sleeper; of good appetite, and without any mental depression or hypochondria. Examination of the urine revealed the presence of spermatozoa and spermatic globules; very little of the urates and the oxalate of lime, and a few epithelial cells, especially from the prostatic portion of the urethra. The gentleman had an appearance of youth—that is, he looked younger than he really was; a symptom oftentimes found in these cases, even in the worst cases of sexual causation. One proof that there was a vein of neurasthenia in the man, was that smoking a strong cigar would at once affect the man's nervous system, and the genital parts would suffer. There was at times an escape of semen at stools. Here is a case of true spermatorrhœa, as is made absolutely clear by the examination of the urine, and by the diurnal emissions. In regard to these diurnal emissions, it may here be observed that non-expert testimony of the patients themselves may be generally accepted, for the prostatic and the urethral fluid does not come out in large quantities at such times; but even granting the liability of mistake in this respect, the examination of the urine at the hands of an expert settles the question of any doubtful case. This patient was treated in various ways. The details were changed from time to time: by the cooling catheter; by the urethral electrode, and by sounds; by central galvanization, general faradization, and electrolysis of the prostatic urethra, by strychnia, zinc, chloride of gold; and the improvement was sufficient to warrant his preparation for marriage.

In the above case the almost entire absence of seminal emissions, may be regarded as an evidence of declining power. It was an accompanying symptom of true spermatorrhœa and impotence.

To what extent is asthenopia caused or aggravated by sexual disease?

That difficulties of the eye may be both causes and effects of nervous symptoms, is illustrated in the following very remarkable case, which is of about equal interest to the neurologist, the oculist, and the electrotherapeutist.

Case XII.—A gentleman, 31 years of age, consulted me during the present year for headache and eyeache, and other nervous symptoms that had interfered very seriously with his occupation, which was that of a bookkeeper. He stated that if he abstained absolutely from excitement and mental worry or effort, he felt almost entirely well; but if he indulged in these activities he would frequently have indescribable distress in the top and back part of the head. The ears would sometimes feel as though they would burst with pressure, and a feeling like that of a shock of electricity would go from the head to the extremities. Several years previous to consulting me he had had a very severe attack of nervous dyspepsia, and he subsequently became hypochondriacal. He also suffered from agoraphobia. He was in Brooklyn at that time, and could not cross the ferry alone, although able to walk many miles (I have seen and been consulted by a number of people who could not cross the ferry to New York; all of them recovered, and this man also recovered from this special symptom). Found it difficult to even leave the house where he was boarding. These mental symptoms had mostly disappeared when I first saw him. He had also been troubled at one time with fibrillary contractions, which have erroneously been supposed to be surely diagnostic of early stages of spinal disease. There had been beating and throbbing sensations in various parts of the body. He had also been troubled with sweating hands; so bad was he in this respect, that it was necessary for him to use a blotter to absorb the perspiration when he was writing. Some months before consulting me he had consulted an eminent neurologist in another city, who suggested that the eye was the cause of all the other troubles, and referred him to an oculist who diagnosed astigmatism, and found that the internal recti muscles were very weak. The trouble was chiefly in the left eye; and I may say, in the left side of the body and all through the left half of the brain. The left side of the face was most annoying. There was at times pain in the cheek, on the left side more than on the right. The patient had a habit of shaking one leg while standing. The application of atropia to the left eye at once relieved the pain. On being fitted with glasses, the pain returned, though in less degree. A very long vacation did a little, but no permanent good. When I first saw him he feared that he would not be able to take a position as bookkeeper that had recently been offered him. In this case the question to be answered was: What was the primary condition? Where did all these nervous symptoms start? I could get from the patient no history of sexual disorder of a very important character. Occasional emissions, to be sure, but not enough to suggest a pathological state. But on examination of the urine by Dr. Mittendorf, spermatozoa and spermatic globules were found, and the oxalate of lime. The result of this examination was a surprise both to the patient and myself, and it suggested a source of the irritation that might account for the obstinacy of the case.

I began to treat this patient at first generally, and then both generally and locally, with a marked improvement at once.

But the most satisfactory improvement was after

local galvanization to the weak muscles of the eye, and electrolysis of the prostatic portion of the urethra were employed. I have never seen a more sudden and gratifying effect of treatment in any case of long-standing nervous disease. He entered upon the duties of his new position, and is able to fulfil them with but little difficulty. Whereas formerly he could do very little, he now works over his books ten or fifteen hours a day. I should say that the previous treatment by bromides and iodides had no permanent effect, and he had also used various currents of electricity without satisfaction. I found that he was susceptible to certain medicines—muriatic acid for instance, with serpentaria, produced unpleasant effects.

In this case it is impossible to prove absolutely that the primal difficulty was with the sexual organs. It is possible that the neurasthenic tendency in his constitution, which he inherited from his father, first broke out in dyspepsia, and that the spermatic difficulty was secondary and the eye difficulty tertiary, but it is not impossible that the spermatorrhœa may have been the starting-point of all his troubles.

The asthenopia when it appeared became a cause or aggravation of all the other symptoms. I had the opportunity to show this case—which is so interesting both from a diagnostic and therapeutic point of view to Dr. Lente and other medical friends. It was a whole clinique in itself, illustrating a large number of not very well-understood facts connected with neurasthenia.

TRAUMATIC ANEURISM IN THE EYELID, FOLLOWING AN OPERATION FOR TRICHIASIS.

By F. C. HOTZ, M.D.,

CHICAGO, ILL.

A secondary hemorrhage occurring one week after an operation for trichiasis, is certainly a very uncommon accident. An observation, like the following, may perhaps not have been yet recorded, namely: that one of the smallest arterioles of the eyelid, which was wounded by the incision through the free edge of the lid, formed a small aneurism, which caused several troublesome hemorrhages. The fact that the patient, an unmarried woman, was afflicted with varicose veins of the lower extremities, probably is of some etiological interest, as it manifests a want of tonicity in the coats of her blood-vessels.

Miss R. H., aged 24 years, of Irving Park, has been troubled with granular conjunctivitis for the past ten years. There is now considerable atrophy of the conjunctiva of both lids of the right eye. The edge of the right upper lid is deformed, thick, and rounded. The eyelashes are growing irregularly, a great many being directed downward, so that they rub over the cornea at every movement of the lid or eyeball. This constant mechanical irritation resulted in pannus of the whole cornea. Patient is of a very nervous temperament, and has numerous varicose veins of the lower limbs. Within the past four years she had several bad bleedings from ruptured varices.

On March 11th I performed an operation for trichiasis. The free edge of the upper lid was split, and three sutures were put into the cutaneous wound. The reaction was very moderate. On the third day the sutures were removed; the external wound was found healed; the gap along the free edge of the lid was filling up with granulations; the eyelashes were everted; and the lid was neither swollen nor painful. The conditions were so fair that I had not the slightest hesitation in allowing the patient to return home.

March 20th.—Her mother called on me this morning in great haste and fright. She informed me that the eye had been doing quite well until day before yesterday. On that day it bled a little; yesterday the upper lid was swollen, but the swelling subsided, when in the afternoon the eye bled again. Towards evening the bleeding returned, and this time was so profuse that the blood ran down the cheek in a smart, red current. They put thick layers of cotton on the eye; in fact, covered the whole right side of the face with it; and finally, the bleeding stopped. It had not bled during the night nor this morning, when she left home. She stated that the blood seemed to come from underneath the lid. I found my patient in bed, greatly frightened; her face wrapped up in cotton, which underneath had become saturated with blood, and stuck tightly to the skin. By continuously soaking it with warm water, I succeeded in removing the cotton without in the least disturbing the lid. The lid was not swollen; the cutaneous wound was still united; the incision into the free edge (made for the purpose of splitting) was cicatrized, except at a small spot in its centre. There I noticed a globular, dark red, soft protrusion of about two millimetres in diameter. I took it for a small button of granulations, and thought that by winking, the friction of the lid against the eyeball occasionally chafed off the surface of these granulations, and so started the bleeding. Upon this supposition, I snipped off the supposed granulations with a pair of fine curved scissors. The removal was followed by a hemorrhage, which seemed to me altogether too brisk for bleeding granulations. It showed a decidedly rhythmical impulse, and was evidently arterial. I could easily control it by pressing the lid gently, but firmly, against the eyeball. When the small wound was cleansed, and all coagula were removed, it looked like a small cavity lined by a membrane, and in its depth I noticed a small opening, from which I could see the blood welling out as soon as I let up on the pressure. That which I had removed with the scissors was not solid granulation tissue, but a hollow membranous shell of about three-quarter section of a globe. I then at once recognized the real nature of the granulation-like protrusion; it was an aneurismal enlargement of the end of one of the arterioles, which had been cut in splitting the lid. When cut, its lumen was at once closed by the contraction of its wall, and sealed up by a coagulum. Therefore, no bleeding occurred during the first week after the operation. But during that time the thin wall of this arteriole was gradually expanding until a small aneurism was formed, which filled the gap of the wound in the centre of the tarsal border, and protruding a little above the surface of the latter was rubbing against the eyeball and the lower lid, when the lids were moved. This continuous friction caused an erosion of the aneurismal sac; the eroded part of its wall became so thin that it could no longer withstand the impulse of the blood pressure. It burst, and a hemorrhage ensued. At first probably the rent in the aneurismal sac was very small, and soon occluded by a fibrinous clot which arrested the hemorrhage. This would account for the fact that twice the bleeding was very insignificant. The third time, however, the rent probably was larger, and the bleeding became profuse and alarming.

While pressure upon the lid was arresting the bleeding, I grasped with a pair of finely-toothed forceps the remaining part of the aneurismal sac, excised it with curved scissors, and touched the little wound

with diluted tincture of perchloride of iron. Nothing further occurred. After five days the wound was found firmly cicatrized, the lid doing well.

April 15th.—Patient called at my office. Her eye has not troubled her since. The lid appears quite natural, opens easily; lashes all well everted, and cornea almost clear.

181 Clark Street, Chicago.

Progress of Medical Science.

Functional Obstruction of the Intestine, probably of Hysterical Origin.—Dr. G. W. H. Kemper gives the following interesting history: The patient was a young woman, twenty-four years of age, who had been married one month. She at first suffered from slight nausea and indigestion, followed by a light and easily controlled attack of diarrhœa. Two or three days after the cessation of the diarrhœa some uneasiness was felt in the bowels, and a purgative was administered, but rejected from the stomach. Vomiting became more severe, and, on the fourth day, was stercoraceous. The temperature and pulse were nearly normal, and the patient merely complained of uneasiness in the abdomen. This region was thoroughly examined, and also the rectum and vagina; no knot or invagination could be discovered. Belladonna was given in moderate doses, and, when active restlessness occurred, morphia, combined with minute doses of calomel. Copious injections of warm water were thrown daily into the colon by means of elastic tubes. The body of the patient was occasionally inverted and manipulations made over the abdomen. Upon the fourteenth day of the disease three copious alvine evacuations occurred in rapid succession.

During the entire illness the constitutional disturbance was but slight, and the patient's strength and embonpoint were well preserved.

Three days after the bowels were moved the patient became morose and melancholy, followed by alternate fits of crying, laughter, and screaming. This hysterical condition continued for three days, and then suddenly disappeared. This hysterical condition, together with the fact that none of the symptoms indicated intussusception, serve to show that the intestinal obstruction was probably of an hysterical nature.—*The American Practitioner*, May, 1879.

New Method in the Treatment of Acute Cystitis, or of Acute Exacerbations of Chronic Cystitis in Women.—This article constitutes an exceedingly interesting report on the result of Dr. Gehrung's new method in four cases, selected from a larger number in his practice. The plan of treatment is carried out as follows: The neck of the uterus is surrounded with a few small wads of cotton. This is followed by a large wad or two, thoroughly compressed between the fingers to facilitate introduction into the vagina, where, when let loose, it enlarges by its inherent elasticity, and fills the canal. After careful adjustment of these wads, the bladder is elevated and compressed against the pubes and abdominal wall, so to speak, between two elastic media. This cotton packing must be withdrawn and a fresh one reapplied as soon as pain and distress recur (two or three times within the first twenty-four hours, and then once or twice daily in very acute cases). Dr. Gehrung thinks that the success of this method depends upon the fact that it enables the bladder to obtain rest. It also elevates the bladder, and enables it, even if the contractility of the organ is lost, to empty itself completely. The support and compression are also valuable factors. In cases of chronic cystitis, Dr. Gehrung prefers to use his anteversion pessary instead of the cotton packing. This pessary is entirely intravaginal, reaches from one side of the rectum to the other without molesting it, and presents two horizontal bars to the posterior wall of the bladder. The following is the history of the most striking case:

Mrs. L. V., æt. 40 years, had been under treatment four years for chronic cystitis. The production of an artificial vesico-vaginal fistula had been finally proposed as a last resort. When the patient first came under Dr. Gehrung's observation she was unable to walk or stand straight, and, even while sitting, could not, on account of pelvic pain, raise her arm to her head. Examination showed anteversion of the uterus, some enlargement of the organ, endometritis and tenderness of the pelvic organs, especially of the bladder. The night before treatment was begun, the patient micturated forty-nine times within two hours. The uterus was replaced next morning with one of Dr. Gehrung's anteversion pessaries, which not alone replaces the anteverted uterus, but also elevates and supports the bladder. After rising from the operating-table, the patient stood perfectly erect, and could raise her arms as high as she wished. During the ensuing night she only emptied her bladder from ten to fifteen times. In two weeks the patient only micturated once or twice during the night, and continued steadily to improve. Within three weeks later she had entirely recovered, and has remained so since (four years).

Paraplegia in Syphilitic Subjects.—Dr. E. C. Seguin reports the histories of six interesting cases of this disease, and presents the following considerations with regard to the treatment of severe cases:

1. To keep the bladder empty, and to prevent or reduce cystitis. This is done by removing the urine two or three times a day by means of perfectly smooth, soft catheters, which are to be kept in carbolized water when not used. If cystitis exist, injections of lukewarm water, of borated or carbolized water, will do good, or even cure the disease.

2. To prevent bed-sores, by keeping the sheets and shirt of the patient perfectly smooth and taut; by preventing urine from running under him; by frequent sponging with alcohol and water; and by the use of powders. If bed-sores have formed, they should be treated with ice or snow poultices for ten minutes, twice a day, and stimulating dressings for the rest of the time; gangrenous shreds should be picked out, and the recesses of the sore injected with strongly carbolized water. Pressure should be removed by change of posture and by appropriate pads.—*Archives of Dermatology*, April, 1879.

The New Hampshire State Medical Society will hold its Eighty-ninth Annual Meeting in the city of Concord, June 17th and 18th.

The Diagnosis of Insanity.—The third spring course of clinical lectures on the diagnosis of insanity will be delivered at New York City Asylum, Ward's Island, by Dr. A. E. Macdonald, medical superintendent, commencing June 7th, and continued June 14th, 21st, and 28th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 14, 1879.

MR. LISTER'S ANTISEPTIC TREATMENT.

THE antiseptic method in surgery, introduced by Mr. Lister, in which carbolic acid is applied in spray form, has found so wide an acceptance, that it has almost been considered one of those fortunate suggestions which would finally graft itself upon our modern practice of surgery.

But surgery is a progressive art, and we are therefore not surprised to find that while this method is still upon its trial, Dr. Perrin, in the *Union Medicale*, expresses the opinion that they have long had in France an antiseptic treatment which is probably better, and he considers more simple and practical, than that of Mr. Lister.

It consists in the use of alcohol in the place of carbolic acid.

M. Perrin, in giving his reasons for his preference of this agent, suggests that Lister is in error in one of the fundamental principles on which he bases his well-known treatment. Thus he asserts, that in all putrid alterations there are two things to be considered, the germ and the soil which suits it, and he contends further that Lister has only had the germ in view, and therefore his method is defective. M. Perrin claims that he has made a number of experiments, which seem to prove that carbolic acid spray has really no influence on the evolution of atmospheric germs in liquids suitable for their culture, and on the consequent phenomena of putrefaction. On the other hand, alcohol diluted with an equal volume of water, he says, acts on the soil, that is, the wound; renders albuminous liquids imputrescible; has considerable coagulating power; readily stops bleeding from vessels of small calibre; quickly moistens cotton; and penetrates into the tissues of the body, without having the instant action of carbolic acid.

In military surgery, especially, M. Perrin looks on alcohol as the agent *par excellence*, and he sometimes applies it to wounds in wadding saturated with it (a drainage tube being added); and sometimes (in cases of contused wounds, complicated fractures, etc.) he practises alcoholic injections and irrigations.

In placing before the profession the views of M. Perrin, we refrain from giving any decisive opinion on the issue thus raised. This is a question which can only be answered by practical experiments, and it would be clearly a waste of time to theorize on a matter the truth or error of which is capable of such easy demonstration.

But without prejudicing the question, we may express some doubt that Mr. Lister took but a partial view of this subject. The masterly manner, however, in which he worked out his antiseptic treatment does not preclude the possibility that he overlooked such a fundamental point as M. Perrin suggests. Without doubt Mr. Lister aimed at the destruction of the germs, not only in the air and upon the instruments and the appliances, but within the wound itself, and he clearly believes that the carbolic acid spray effects this object.

M. Perrin now positively asserts that he has demonstrated, by experiments, that the carbolic-acid spray has no influence on the evolution of atmospheric germs in liquids suitable for their culture. The issue being clearly stated, let this point be first satisfactorily settled, and as it is capable of practical demonstration by simple tests we trust it will be done at once.

It is a secondary consideration to decide whether alcohol renders a wound incapable of sustaining living putrefactive elements. For, if Mr. Lister is correct in stating that carbolic-acid spray is sufficient, the question drifts into the minor consideration whether alcohol is equally potent in this respect, and, finally, which of the two agents is the most suitable for the purpose. Additional importance is given to the proposition to substitute alcohol for carbolic acid in the antiseptic treatment, from the belief of many that some of the fatal cases which have followed Lister's treatment were due to the absorption of carbolic acid applied to the wounds. Such an instance was recently brought before the Clinical Society of London by Dr. A. Pearce Gould, who pointed out, that in this particular case all went well with the patient for forty-eight hours, and then suddenly, and coincidently with the excretion of carbolic acid in the urine, the fatal symptoms set in, which he observed to be not local, but general in their character. Apparently Dr. Gould had not heard of M. Perrin's alcoholic antiseptic treatment, but he prophetically observes, in a letter recently published, that "the future of the antiseptic treatment is not bound up with carbolic acid."

This is a matter of great importance to the medical profession, and highly interesting in its scientific bearings. We know many whose decision on this question would be received with respect, and we confidently look to them for a prompt solution.

IS VACCINATION DANGEROUS?

Our attention has been called to a leading article in a Delaware newspaper, headed "Is Vaccination Dangerous?" in which it is stated that a lively controversy is now going on in Europe as to whether vaccination is an efficient and advisable method of preventing small-pox. We would hint to our Delaware brother that this is pretty old news, for it is full twelve years since "the renowned Dr. Collins of London," had his say on this subject before a Parliamentary commission, whose proceedings, published *verbatim* in a huge blue-book, form very wholesome reading for any one who may have been duped into according the slightest weight to "the renowned Dr. Collins" and his fellow agitators of the "Anti-Vaccination League," whose statements and fanciful deductions met the fate which overtakes the dew when the sun brings his beams to bear upon it. Silly and harmful as these vaporings are, however, by dint of incessant repetition they take hold upon the minds of simple people, especially in times when, as at present, small-pox has for a time ceased to threaten; but the logic of facts, as brought out by an epidemic, never fails to consign them again to obscurity. Men, and particularly Anglo-Saxons, object to having anything —even blessings—thrust upon them, and we cannot avoid the conclusion that this anti-vaccination twaddle is kept alive by the compulsory vaccination laws in force in some European countries. In this country the opposition to vaccination is too insignificant to call for notice. Should this state of things ever become changed, the newspapers will do well to publish freely whatever any one may have to say on the question, for the truth never permanently suffers from rough handling. As things are now, we should not have felt called upon to notice the article in question, except for the fact that it couples the name of Dr. Edward Ballard with those of "the renowned Dr. Collins," and others of that ilk. When we remember that Dr. Ballard is the author of the best essay on vaccination ever published, in which, while treating the anti-vaccinators with the utmost fairness and courtesy, he grinds their arguments to powder, we must conclude that the grievance under which the League chafes must have rather palled upon the public, else they would scarcely put forward, to sustain their cause, a man whom, next to Mr. John Simon, they have most cause to fear—the man whose essay bore off, much to their chagrin, a prize offered by one of their own set. It is so rarely, we regret to say, that a medical writer views with fairness the positions of his opponents, that one who does so may surely claim our aid in defending his utterances against such gross misrepresentation as the newspaper article here referred to gives to Dr. Ballard's account of the Rivalta cases of vaccinal syphilis. The fact that Dr. Ballard has carefully and fairly examined the vaccinal syphilis and animal vaccination questions, far from putting him in the attitude of an opponent of vaccination, makes him *ipso facto* one of the most unanswerable of its adherents.

Reviews and Notices of Books.

The National Dispensatory. By Alfred Stillé, M.D., LL.D., and John M. Maisch, Ph.D. Philadelphia: H. C. Lea. 1879. Pp. 1,628.

First Notice.

This new candidate for professional and pharmaceutic favor is a handsome volume, rivalling in size the old familiar U. S. Dispensatory, and as its intent is to satisfy the usual "long-felt want," we have examined its pages with more than usual interest and care. That a dispensatory in keeping with the times was greatly needed was clearly recognized during the discussions two or three years ago concerning the U. S. Pharmacopœia, and the proprietors of the former work promptly brought out a "revised" edition, in which the evidences of revision were not as distinct and unmistakable as many would have wished. This created the opportunity for the possible success of a rival publication, whose objects should be the same, but whose merits should be greater. Were the national the only dispensatory in existence we should not hesitate to commend it highly as the best work on the subject attainable; but as there is another and an older work that for forty years or more has enjoyed this distinction, we shall in a measure be compelled to institute a comparison between the two; but before doing so must consider the plan and the contents of the work that more immediately concerns us. The scope of the dispensatory is two-fold: pharmaceutical and therapeutical. In the first place, the work contains the text of the pharmacopœia, with comments on the various processes for the preparation and compounding of officinal and non-officinal drugs; in the second place, it supplies a large amount of pharmacological and botanical information, thus supplementing the deficiencies of the pharmacopœia in these respects. The fact that such a supplement is necessary is somewhat scandalous, and reflects no credit on the revisers of the pharmacopœia, for it must be remembered that that work is supposed to be representative in its character, while the dispensatories are purely private business enterprises, and as long as the pharmacopœia can be kept in a condition that makes it almost worthless as a work of reference, so long will there be a market for the dispensatories. It has, indeed, been hinted that this state of affairs is not altogether the result of chance, and we cannot conceal our fear that the appearance of a second dispensatory will tend still further to delay our hopes of pharmacopœial improvement and reform.

The therapeutical scope of the dispensatory should be the collection of the experience of the profession with the various articles of the materia medica, devoting comparatively little space to those that are well known and described in every text-book on therapeutics, and giving the fullest possible account of active drugs that are but little known, or that have been employed by a few practitioners only. The physician does not turn to the dispensatory in search of therapeutic information concerning mercury, opium, or belladonna, but rather to some standard text-book on materia medica; on the other hand, if he wishes to know something about a little known drug, that

has been used for something or other by somebody, he naturally turns to the dispensatory in the hope that he will there find what it has been used for, who has used it, and where they tell about it. From these standpoints we will consider the work before us.

As regards the pharmaceutical portion of the work, we can say but little, as lack of knowledge, too frequent among physicians, of pharmacy, pharmacology, and botany, unquestionably forbids any critical consideration, on our part, of these portions of the work. We may remark, however, that the arrangement is convenient, the style pleasing, and the frequent reference to modern as well as the older researches indicates that the author is familiar with the subjects he has chosen to handle, and as these concern matters of fact rather than of opinion, the statements of the author may, we presume, be accepted without question.

The portion of the work prepared by Prof. Stillé is the one that particularly interests the physician, and it is to this that we will devote special consideration. It embraces about one-fourth of the entire work, and is devoted to the physiological action and medical uses of the various drugs. In the majority of instances no reference to the physiological action is made, either because this action is unknown, or perhaps because Prof. Stillé regards a knowledge of it of little importance as an aid to the intelligent use of drugs. We believe ourselves justified in this inference by the previous writings of the author. In the preface to the last edition of his *Therapeutics and Materia Medica* he says: "In the first edition of the work he contended against the mischievous error of seeking to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation, and reflection have tended to strengthen his conviction upon this subject," etc. We give this quotation, as it is the key-note of the work before us, and we will see as we advance how far it is justified by the facts recorded by the author. In dealing with the therapeutic aspects of drugs, the author rarely gives the statements and views of others, and almost never the facts and evidence which have led them to their conclusions, but instead, his own inferences and inductions, in the formation of which he is naturally influenced to a greater or less degree by what the mathematician would term the "personal equation." This method of treating the subject will specially commend the work to those who, too indolent or too busy to examine the facts for themselves, are perfectly willing to have this done for them by another. There are some, however, who prefer thinking a little for themselves, to whom the present work will prove exceedingly unsatisfactory, as it is filled with the most dogmatic statements unsupported by evidence or argument. One of the most useful features of the U. S. Dispensatory are the frequent references to original sources of information, thus enabling the reader to obtain full details concerning the matters referred to. In the National Dispensatory these are uniformly omitted, a defect that makes the book nearly valueless as a work of reference. The expressions "is said" or "is stated" occur in almost every section contributed by Prof. Stillé, but by whom said, and where said, the reader is uninformed.

With reference to drugs with which the author is practically familiar, his own dicta concerning their sphere of usefulness must be accepted as the conclusions of one eminently fitted to observe facts and to draw reasonable inductions from them. But when it comes to drugs that he has never employed, the case is different, and we are hardly prepared to definitely accept the condemnatory statements that he makes concerning many of them. His method of arriving at a conclusion seems to have, to a certain extent, a mathematical basis, *i. e.*, if ten observers have obtained certain beneficial results in the use of a given drug, and twenty others have failed to obtain them, the negative testimony outweighs the positive, and the drug is labelled as useless, a method that reminds us of the prisoner who was acquitted because ten witnesses testified that they did not see the crime committed, while but five swore that they did see it.

In view of the foregoing we will introduce a few quotations with comments, and also call attention to some other points of interest, commencing at the beginning of the book and going through it in order.

Arsenic, p. 24. "A longer continuance of the medicine is apt to occasion eruptions of the skin, particularly urticaria, pityriasis, and psoriasis." This is a remarkable statement ,in view of the fact that arsenic is almost universally employed for their relief.

Salicylic Acid, p. 75.—"In this case is presented an apt illustration of the error of deducing the therapeutical uses of a medicine from its apparent physiological action." We think that the quotation concerning arsenic above given is still more "apt."

Aconite, p. 95, appears not to have yielded good results at the hands of the author in those affections in which it has been commonly employed. This surprises us, as we know of many physicians to whom a vial of aconite is as indispensable a companion as a hypodermic syringe.

The long line of advocates of aconite, from Störck to Gubler, should teach us that there is an art in therapeutics, and that this art consists as much in properly handling powerful drugs as in the more delicate manipulations of ophthalmic surgery. Every one can give aconite, but it is not every one that gives it just at the right time, or in just the right quantity; and unless this is done how can good results be expected?

Alkekengi, p. 131.—To this plant a few words are devoted. Its diuretic powers have been praised by so many European writers that we are surprised that it is not in more general use. The only form in which it has been employed in this country, so far as we are aware, is in the shape of a proprietary medicine—Laville's gout pills—of which it is the principal ingredient.

Aloes, p. 137, is recommended both in *amenorrhœa* and in *menorrhagia!*

Amyl Nitrite.—Of this the author makes the usual statements, but neglects to mention the important discovery of Ringer—that the drug when given in appropriate doses is capable of relieving flushings of the face, so common and distressing to women—a fact that we have several times had an opportunity of confirming.

Gold, p. 261.—"It is unnecessary to enter into any detail respecting a medicine which has deservedly fallen into disuse." This is certainly an extraordinary statement. Has Dr. Stillé forgotten the writings of Chrestien and Niel, of Legrand and Duhamel and Trousseau, of France, and the elders Cheesman and Delafield, of this city? It has taken the profession nearly three hundred years to learn how to employ mercury to the best advantage in syphilis (*vide infra*), and it may require the same length of time before some learn the proper and useful applications of gold in the same disease. It is not necessary to poison the patient, or "to produce a destructive activity in the morbid process," in order to obtain the best results. The dose mentioned by the author is $\frac{1}{10}$ grain of the

oxide. This is altogether too high. Better curative effects will follow smaller doses.

Bursa Pastoris, p. 304.—"Its use is entirely obsolete." This is curious, as we have seen some four or five recommendations of it in the journals of the last six months.

The sulphate and sulphite of calcium are mentioned, but not a word is said about the *sulphide*, now used by so many, following Ringer, for the control of suppuration. This drug is the *hepar sulphuris calcareum* of the older pharmaceutical writers, and was first brought prominently into notice, we believe, by Paping (1796) as a remedy against mercurial salivation.

Clematis, p. 427.—Of this the author speaks by hearsay only. The drug is interesting, however, as having cured, at the hands of Störck (1769), the first case of gonorrhœal rheumatism of which we have found record.

Conium, p. 151.—Stillé recognizes the worthlessness of most of the *preparations* of this drug, but fails to call attention to the fluid extract prepared by Squibb, which we believe has given general satisfaction for uniformity and certainty of action.

Cyclamen, p. 487.—The interesting statement is made, on the authority of Vulpian, that if frogs are poisoned with this drug "their blood is found to contain a multitude of vibrios, some of which are even in the interior of the red corpuscles."

Dulcamara, p. 511.—Of this drug Stillé speaks more flatteringly and justly, we think, than most writers. He says that the best preparation is a decoction made from the fresh stems.

Sclerotinic Acid, pp. 535–538.—On the former page the dose of this new derivative from ergot is given as $\frac{1}{2}$–$\frac{3}{4}$ grain, but three pages later it is stated to be $\frac{1}{20}$ to $\frac{1}{10}$ grain.

Gelsemium, pp. 593–664, appears to meet with but little favor from the author.

Bromide of Iron, p. 612.—"There is not the slightest evidence of its ever having been useful as a medicine; and, as it is dangerously poisonous, it ought never to be used internally." To this assertion we must certainly demur. Arsenic, strychnine, and atropine are also "dangerously poisonous," but in appropriate doses are generally regarded as useful. We suppose no one would think of using this preparation when a sedative effect (like that of bromide of potassium) is desired, nor as an hematic in the place of the usual preparations of iron. We have, however, frequently employed it in doses of $\frac{1}{5}$ grain and upward, and we think with benefit; and Hecquet (Recherches, etc., Paris, 1877) recommends it in doses of $\frac{3}{4}$ grain or more.

Biniodide of Mercury, p. 715.—"As an internal remedy it is superfluous, and dangerous unless very cautiously used"!!

Protoiodide of Mercury, p. 717.—In syphilis "it should be given in doses of from three-quarters of a grain to one grain three times a day, and gradually increased until these doses are trebled, or more, provided that neither salivation nor diarrhœa occurs." We must earnestly protest against such practice as this. Few patients would stand such dosing more than a week without the occurrence of salivation, serious depression of the spirits, and perhaps of the vital powers. Few, if any, modern syphilographers employ this drug in doses exceeding one-third of a grain. Under these and smaller doses the syphilitic manifestations disappear, and the patients grow fat and hearty, even with a continuance of the remedy for months at a time. Syphilis cannot be strangled by a pound of mercury given at a dose, but it can be persuaded out of the system by the gentle allurements of minute but repeated doses. Too many competent observers have employed and still employ this plan of treatment to admit of any doubt of its efficacy. A hogshead of water may leave the stone unscathed, but if applied *guttatim* the result may be different.

We have not space at the present time for further comment. The quotations that we have given show that the work does not fairly represent the therapeutics of the present, at least as we have observed them in this part of the country. The therapeutic wave that is reaching us from the East (England) promises a milder system, but whether more or less successful time alone will tell. Although criticising the author's contributions to the National Dispensatory, we cannot forget that the last hundred years has given us, in the English language, but three standard treatises on materia medica—those of Cullen, Pereira, and Stillé—works that will be held in honor for yet a hundred years to come.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW JERSEY.

One Hundred and Thirteenth Annual Meeting.

Held in Englewood, May 27 and 28, 1879.

(Special Report for The Medical Record.)

Tuesday, May 27th—First Day.

The Society met in the parlor of the Palisade House, Englewood Cliffs, at 8 o'clock P.M., and was called to order by the President, Dr. John S. Cook, of Hackettstown. Among those who occupied the platform were the three Vice-Presidents, Drs. Rodger, Dougherty, and Oakley, and the Secretaries and the Treasurer.

Prayer was offered by Rev. Dr. Payne, of Englewood.

The Committee on Organization reported the list of Delegates and Fellows. An unusually large number of both were present, every District Society in the State being represented.

annual address of the president.

The President read the annual address, the subject of which was

"the problem of life."

Having portrayed the majesty of the human mind, its seeking after the true solution of great problems, the doctor discussed the many attempts to answer the question of "How life came on the earth?" He reviewed the theories of the ancients, and showed the effect of Pasteur's observations on germ-life in the development of Listerism. A large part of the paper was devoted to the Darwinian theory, its relation to the problem of life, and the conflict of science and religion. It ended with a philosophical discussion of the question, "What is the good of life?" the effect of the teachings of Schupenhausen and Nihilism, and the lessons to be drawn from statistics regarding the wastage and the limit of life.

delegates from other societies.

Drs. Ferris Jacobs and S. O. Vander Poel, Honorary members, and Drs. James H. Eldridge and W. E.

Anthony, Corresponding Delegates, from the Medical Society of Rhode Island; Dr. David B. Van Slyck, from the Massachusetts Medical Society, and Drs. N. C. Husted, Robert Newman, and Professor Joseph C. Hutchison, from the Medical Society of the State of New York, were present, and were cordially welcomed by the President.

The Society then adjourned, to meet at 9.30 A.M. on Wednesday.

WEDNESDAY, MAY 28TH—SECOND DAY.

The Society was called to order at 9.30 o'clock by the President.

REPORT OF THE STANDING COMMITTEE.

The first business of the Session was the reading of the Annual Report of the Standing Committee. The Report of the Standing Committee is always a prominent feature in the transactions of the Society, and is always received with much interest.

DR. WICKES, who has been the Chairman of the Committee for many years, read the report, of which the following is a resumé:

EPIDEMICS.

Epidemics had not been prevalent. Scarlatina, diphtheria, and diseases of the alimentary canal had occurred in less than their usual amount. Diseases of the respiratory organs had been very general, and, in some large sections of the State, in the form of influenza, epidemic. Fevers, in their varied forms, and malarial poisoning, had been almost universal. Large portions of the State, where these agencies had been heretofore almost unknown, had been invaded. Its occurrence in regions where none of the usual causes recognized by sanitarians existed, pointed to the fact that the pestilence still walked in darkness and was governed by laws which our advanced methods of scientific research had not revealed.

NEW REMEDIES.

Among new remedies, salicylic acid and its salts were noted as reliable and most efficient agents in acute rheumatism. Reports regarding the use of the cinchona alkaloids tended to prove that, in double doses, cinchonidia and cinchona equalled quinine as antiperiodics. Carbolate of ammonia (gr. i. t.i.d.) had been used in Morris County successfully, instead of quinine, in intermittents. Dr. Kipp, of Essex, in a paper on glaucoma, commended the sulphate of eserine in the subacute form; and where that agent caused pain in the head, he had used, with good effect, the muriate of pilocarpia. Jaborandi had been successfully used in hydrothorax, Bright's disease, orchitis of mumps, and in belladonna intoxication.

One reporter complained of the fraudulent character of many of the elixirs, fluid extracts, and syrups put on the market by manufacturers.

It was a question for serious consideration whether the proprietary preparations, which now so abounded, wearing the livery of officinal compounds, and advertised and recommended in most of our medical journals, were not supplanting, in too great a manner and at the expense of efficient medication, the recognized remedies of our materia medica.

The committee proposed two questions to the members of the district societies for answer:

1. *The therapeutic value of ergot.*
2. *The value of pessaries in uterine displacement.*

In summing up the answers to the first question, they concluded that ergot was a valuable agent as a uterine stimulant in parturition, but dangerous when used too early; a hemostatic in all cases of external or internal hemorrhage; invaluable for controlling the supply of blood to congested parts or organs; useful in congestive or nervous headache; a stimulant of muscular fibre; a good agent in cardiac palpitation, even better than digitalis or veratrium. In pneumonia, its action in changing the colored sputa was as prompt as quinine in intermittent.

The answers to the second question varied as widely as possible; many condemned, while many praised; language equally extravagant was used on either side; and though much instruction might be derived from the replies, no ultimate conclusions could be reached.

REPORT ON NECROLOGY.

The necrology of the year was as follows:

Edward D. G. Smith, M.D.; J. B. Jackson, M.D.; R. N. Bateman, M.D.; Frank Parsons, M.D.; J. N. Julian, M.D.; A. J. Krapon, M.D.; C. D. Deshler, M.D.; R. J. Whitely, M.D.; J. L. Taylor, M.D.; T. J. Conover, M.D.; Lemuel Burr, M.D.; ——— Kent, M.D.; James Holmes, M.D.; H. H. Rheinhart, M.D.; ——— Gulick, M.D.

The report being before the Society for discussion,

DR. HOPPER, of Bergen, referred to what was said in reference to the use of salicylates in rheumatism. He had observed in his practice markedly good results. In his own person he had recently been entirely relieved of a severe attack of acute articular rheumatism in a few days by them.

DR. RIDGE, of Camden, had also used the salicylates extensively, but with varied success. Ergot he had used extensively in nearly all forms of hemorrhage, and was much pleased with its action in these cases. He spoke disparagingly of the use of the elixirs and the proprietary medicines which have in a few years come into such general use. He was opposed to leaving the compounding of medicines to the exclusive control of the pharmacist.

DR. HERITAGE, of Worcester, advocated the use of salicylic acid and quinine. He was in the habit of prescribing iv. grs. of the acid every two hours to young children with diphtheria, and with markedly good results. He also was not an advocate for the use of the so-called proprietary medicines. He spoke commendatorily of the use of stem pessaries.

DR. OSBORNE, of Essex, had observed good results from the use of the salicylates in the treatment of rheumatism. He spoke of good results he had observed from the use of jaborandi in the treatment of tubal nephritis.

DR. CORSON, of Essex, was an advocate for the use of ergot in pulmonary hemorrhage.

DR. BODINE, of Mercer, had observed negative results only in the treatment of rheumatism with the salicylates.

DR. HUNT, of Middlesex, urged the importance of more accuracy in the observing and relating of cases.

DR. BALDWIN, of Middlesex, expressed the idea that the varied results observed by the members in the use of the salicylates and other drugs might be accounted for by the character of the drugs used.

DR. PUMYEA, of Monmouth, was surprised to learn that any physician at the present day could doubt the contagious character of scarlet fever and diphtheria. He believed there was no better settled fact in medicine than the contagion of those diseases.

DR. ROGERS, of Passaic, prefered the salicylate of soda to the salicylic acid. The latter he had found to produce a great irritation of the stomach.

DR. JOHNSON, of Warren, had been pleased with

what he had observed in the use of salicylic acid in the treatment of diabetes mellitus.

Dr. Larison, of Monmouth, spoke of a form of influenza which had been of unusual prevalence in his county during the past winter.

ON THE USE OF ALCOHOL IN MEDICINE.

The report on the Use of Alcohol in Medicine, by Dr. Thos Ryerson, of Newton, was received and referred to the Committee on Publication.

Dr. J. W. Corson, of Orange, read an abstract of a paper he had prepared

ON A HEALTHY IMPULSE OF THE HEART AS A VALUABLE SIGN OF COMPARATIVE SAFETY IN THE USE OF ANÆSTHETICS

The abstract was well received, and a copy of the paper in full was requested for publication in the Transactions.

REPORTS OF DELEGATES.

Dr. Lilly, delegate to the American Medical Association, read his report.

Dr. Taylor, delegate to the Pennsylvania Medical Society, also read his report. Both were referred to the Committee on Publication.

PUERPERAL CONVULSIONS.

Dr. L. W. Oakley, third Vice President, read a very exhaustive paper on Puerperal Convulsions, which was well received and a copy requested for publication.

Dr. H. G. Taylor presented a paper on

UNITY OF THE MEDICAL PROFESSION,

which, at his own request, owing to the lateness of the hour and the press of business, was referred to the Committee on Publication without being read.

Dr. A. Clendenin read a valuable paper entitled,

A RESUME UNIVERSAL, AND CONCLUSIONS THEREFROM ON YELLOW FEVER.

The paper will be published in the Transactions.

HONORARY MEMBERS.

Drs. David B. Van Slyck, of Massachusetts, Prof. Joseph C. Hutchison, of Brooklyn, N. Y., and Prof. Bracket, of Princeton, N. J., were proposed for Honorary Membership.

Dr. P. V. P. Hewlett was appointed essayist for the next meeting of the Society.

It was voted that the next annual meeting be held in Princeton.

The assessment for next year is to be one dollar per capita for members of district medical societies.

OFFICERS ELECT.

The following were elected the officers for the ensuing year:

For President, Dr. A. W. Rogers.

For Vice Presidents, Drs. A. N. Dougherty, L. W. Oakley, and John W. Snowden.

For Corresponding Secretary, Dr. Wm. Elmer, Jr.

For Recording Secretary, Dr. Wm. Pierson, Jr.

For Treasurer, Dr. W. W. L. Phillips.

For Standing Committee, Drs. S. Wickes, S. Lilly, and J. L. Bodine.

For Delegates to American Medical Association, for 1880.—Drs. A. Clendenin, J. C. Thornton, C. O. Voorhees, William Pierson, Jr., L. W. Oakley, W. R. Fisher, S. Lilly, Wm. Green, John Wright, P. C. Barker, Hilliard, A. W. Rogers, H. G. Wagoner, Carlos Allen, C. F. Stillman, J. C. Johnson, and C. J. Kip.

For Delegates to Rhode Island State Medical Society.—Drs. S. Pennington, and L. L. B. Ribble.

For Delegates to Connecticut State Medical Society.—Drs. W. A. Hopper and G. H. Ballenay.

For Delegates to Massachusetts State Medical Society.—Drs. F. Wilmarth, Jos. Parrish, and W. L. Newell.

For Delegates to Vermont State Medical Society.—Drs. P. C. Barker and W. W. Elmer.

For Delegates to New York State Medical Society.—Drs. D. A. Currie, J. W. Hunt, and E. J. Marsh.

For Delegates to Pennsylvania State Medical Society.—Drs. F. Gaunt, W. A. Newell, and S. Lilly.

The Society then adjourned.

CONNECTICUT MEDICAL SOCIETY.

Eighty-eighth Annual Meeting, May 28 and 29, 1879.

Dr. C. M. Carleton, President, in the Chair.

(Special Report for The Medical Record.)

The Eighty-eighth Annual Convention of the President and Fellows of the Connecticut Medical Society was held in the city of Hartford May 28th and 29th.

Dr. C. M. Carleton, the President of the Society, welcomed the delegates in a brief address. The first day was devoted chiefly to business. The governing board of the Society consists of the President and the officers, five fellows from each county save Tolland, which sends three—and the presidents of the eight county societies.

The President made a brief *resumé* of the business handed down from the last annual meeting.

SPECIAL AMENDMENTS.

Of this, mention was made of certain amendments to the by-laws, amendments to the charter of the Medical Department of Yale, a case of discipline, and the proposed act relating to medical tramps or itinerant practitioners.

One of the special subjects demanding attention at the present meeting was

THE PROPER MANAGEMENT AND CARE OF THE INSANE.

That the Society might receive proper information relating to the question, he had invited the Neurological Society of the City of New York to send a representative from its body, and, in accordance with the request, the Society had sent Dr. Wm. A. Hammond, of the city of New York.

STATE BOARD OF HEALTH.

The President urged the renewed co-operation of the profession with the State Board of Health. The support it had already received and its purposes and aims were heartily endorsed.

MEDICAL EXAMINER SYSTEM.

The medical examiner system of the State of Massachusetts was brought to the attention of the Society, and it was recommended that a committee be appointed to investigate the system with regard to its practical workings in that State, and to report at the next annual meeting the adaptability of the system to the State of Connecticut. The committee appointed consisted of Drs. C. W. Chamberlain, E. C. Kinney, and N. C. Wordin.

METRIC SYSTEM.

It was also recommended that a similar committee be appointed to report on the metric system.

ANNOUNCEMENT OF NEW APPOINTMENTS.

Secretary was ordered to notify the following of their appointments, and members report to the next session during the session of the last Legislature:

COMMITTEE ON CHEMISTRY.

In addition to the committees appointed at the beginning of the Session, one was appointed to report next year with reference to the possibility of abolishing the office of coroner.

The President then announced the various regular committees of the Society.

THE NOMINATIONS TO COUNCIL ANNOUNCED.

The above nominations were regarded by the most influential members of the Society as unfortunate, because of the fact that, in view of large and urgent opposition on the part of the Profession, who had been officially communicating their wish to consolidating with the Metropolitan Commissioners, by meeting with their representatives, and by passing many interesting resolutions, a short notice was then given to allow the Profession time and a fair chance to organize one of their number on a number of the Nominating Committee.

The Convention was again called to order, when the nominations appointed just now.

THE NEW PRESIDENT OF THE COUNCIL ANNOUNCED.

Under the report through the electorate, Dr. C. W. Chamberlain, of Rockford. The committee was appointed with power to appoint certain Legislators for their representation as might be agreeable agreed upon by a concurrent committee from the appointment Veterinary Society, and the Connecting Medical Society, and reported as follows:

"The power to appoint representative delegates to a committee from the Medical Society and the physicians in the Medical School. This was rendered unnecessary. Delegates are appointed by a committee from the Society and the faculty to equal number. A majority vote is necessary. Fifty members constitute a quorum. The privileges of each society to nominate one practitioner shall be a part and parcel of the by-laws to amend.

"The requirement for a medical degree shall not be imposed from the standard case by ultimately on from all circumstances which shall preliminary examinations required."

PROPOSED BY-LAW, AS AMENDED.

The Medical Society of the State of New York, and the Medical Society of the County of Kings, and the Medical Society of the County of New York, and the Medical Society of the County of Queens, and the Medical Society of the County of Richmond, and the Medical Society of the County of Westchester, and the Medical Society of the County of Orange, and the Medical Society of the County of Rockland, and the Medical Society of the County of Putnam, and the Medical Society of the County of Dutchess, and the Medical Society of the County of Ulster, and the Medical Society of the County of Sullivan, and the Medical Society of the County of Columbia, and the Medical Society of the County of Greene, and the Medical Society of the County of Albany, and the Medical Society of the County of Rensselaer, and the Medical Society of the County of Schenectady, and the Medical Society of the County of Saratoga, and the Medical Society of the County of Washington, and the Medical Society of the County of Warren, and the Medical Society of the County of Essex, and the Medical Society of the County of Clinton, and the Medical Society of the County of Franklin, and the Medical Society of the County of St. Lawrence, and the Medical Society of the County of Lewis, and the Medical Society of the County of Jefferson, and the Medical Society of the County of Oswego, and the Medical Society of the County of Onondaga, and the Medical Society of the County of Cayuga, and the Medical Society of the County of Seneca, and the Medical Society of the County of Tompkins, and the Medical Society of the County of Cortland, and the Medical Society of the County of Chenango, and the Medical Society of the County of Broome, and the Medical Society of the County of Tioga, and the Medical Society of the County of Chemung, and the Medical Society of the County of Steuben, and the Medical Society of the County of Allegany, and the Medical Society of the County of Cattaraugus, and the Medical Society of the County of Chautauqua, and the Medical Society of the County of Erie, and the Medical Society of the County of Niagara, and the Medical Society of the County of Orleans, and the Medical Society of the County of Genesee, and the Medical Society of the County of Wyoming, and the Medical Society of the County of Livingston, and the Medical Society of the County of Monroe, and the Medical Society of the County of Ontario, and the Medical Society of the County of Yates, and the Medical Society of the County of Schuyler, and the Medical Society of the County of Chemung, and the Medical Society of the County of Tioga, and the Medical Society of the County of Broome, and the Medical Society of the County of Cortland, and the Medical Society of the County of Chenango, and the Medical Society of the County of Delaware, and the Medical Society of the County of Otsego, and the Medical Society of the County of Schoharie, and the Medical Society of the County of Montgomery, and the Medical Society of the County of Fulton, and the Medical Society of the County of Hamilton, and the Medical Society of the County of Herkimer, and the Medical Society of the County of Oneida, and the Medical Society of the County of Madison, and the Medical Society of the County of Onondaga, and the Medical Society of the County of Cayuga, and the Medical Society of the County of Seneca, and the Medical Society of the County of Wayne, and the Medical Society of the County of Ontario, and the Medical Society of the County of Yates, and the Medical Society of the County of Schuyler, and the Medical Society of the County of Chemung, and the Medical Society of the County of Steuben, and the Medical Society of the County of Allegany, and the Medical Society of the County of Cattaraugus, and the Medical Society of the County of Chautauqua, and the Medical Society of the County of Erie, and the Medical Society of the County of Niagara, and the Medical Society of the County of Orleans, and the Medical Society of the County of Genesee, and the Medical Society of the County of Wyoming, and the Medical Society of the County of Livingston, and the Medical Society of the County of Monroe, and the Medical Society of the County of Ontario, and the Medical Society of the County of Yates, and the Medical Society of the County of Schuyler, and the Medical Society of the County of Chemung, and the Medical Society of the County of Tioga, and the Medical Society of the County of Broome, and the Medical Society of the County of Cortland, and the Medical Society of the County of Chenango, and the Medical Society of the County of Delaware, and the Medical Society of the County of Otsego, and the Medical Society of the County of Schoharie, and the Medical Society of the County of Montgomery, and the Medical Society of the County of Fulton, and the Medical Society of the County of Hamilton, and the Medical Society of the County of Herkimer, and the Medical Society of the County of Oneida, and the Medical Society of the County of Madison, and the Medical Society of the County of Onondaga, and the Medical Society of the County of Cayuga, and the Medical Society of the County of Seneca, and the Medical Society of the County of Wayne

Sec. 3. It shall be the duty of the Governor to appoint at this session of the General Assembly, by and with the advice and consent of the Senate, a Board of Censors, consisting of six persons, two of whom shall be members of the Connecticut Medical Society, two of the Homœopathic Medical Society, and two of the Connecticut Medical Reform Association, respectively. . . .

The remaining sections related to the license tax and method of executing the proposed law.

After considerable debate, it was moved to indefinitely postpone the subject. The principal objections were that it was unwise to license indirectly irregular empirics, some of whom might be able to pass a creditable examination, and that the measure was too partial, and did not reach the greatest evils.

COLLATION AT MERRILL'S.

During the evening a collation was given at Merrill's by the Hartford City Society. Among the distinguished persons present were Dr. W. A. Hammond, of New York, and Dr. Benjamin Cotting, of Boston, the latter an honorary member of this Society.

The occasion was a very pleasant one, the speeches bright and short, the stories telling and well delivered, and the temper happy.

SECOND DAY.

The Society was called to order by the President.

The Secretary read his annual report. The Society now numbers 420, a net gain of twenty-five. There had been fourteen deaths during the year; average age, sixty-two years. One honorary member, well known in all lands, Dr. Jacob Bigelow, had died during the year. There had been forty-three new members admitted, a larger number than in any previous year.

THE PRESIDENT'S ANNUAL ADDRESS.

The President, Dr. Carleton, delivered his annual address—subject:

HONESTY IN MEDICINE.

In commencing, the speaker said that, contrary to the usual practice of self-glorification and that pleasant exchange of mutual admiration which has been the ancient and therefore accepted as an honorable custom of all professional societies to follow at their annual meetings and reunions, he intended to confine himself more to matters of deficiencies in which criticism was needful and censure was merited. In the relation of the profession to the public there was much to be improved, much that furnished no cause for pride and no ground for gratification. Reform, he claimed, was needed in the schools of medicine. Carelessness on the part of the teachers and good-natured pliability on the part of the examiners, he held to be but poor encouragements to the great body of high-minded and honorable practitioners. Such things were diluting the profession with ignorance and inability, and it was no unusual thing to hear educated members of the laity express their fear and distrust of physicians. After referring to the silly jealousies and insincere criticisms to which many practitioners were prone, the speaker turned to the subject of consultation, and said that in those doctors should be honest to each other and to their patients. If there were disagreements, there should be no concealment, no covering of the errors or omission of each other. Dr. Carleton believed that it would be wise to reverse the code, so that the physician called in consultation should first give his opinion, rather than the attending physician, as now provided in the code. Further than this, there should be no mutual concessions. Continuing, Dr. Carleton said he wished to put himself on record in favor of the fullest liberty of the patient or his friends to change the attending physician for the consulting physician or any other, and especially in the event of radical differences in either diagnosis, prognosis, or treatment, and it should not be held to be unprofessional to take the case under such circumstances.

Doctors should not exaggerate the danger of the disease, nor belittle it, and thus cheat with hopes that never could be fulfilled. The true condition of the patient should never be withheld from friends, although it might be from the patient. The speaker, however, admitted that occasions might arise where a physician must guard his secret to protect the home or domestic peace of the patient. Then he might rightly say whatever he chose to avert suspicion. Dr. Carleton next took issue with the code requirement that professional courtesy compelled one practitioner to visit the patients of another without fee or reward. Many practitioners absented themselves for pleasure merely, and there was no justice in compelling others to do their work. Taking up the subject of medical jurisprudence, Dr. Carleton referred to the tendency of physicians on the witness-stand to meet an unexpected point with theory and guessing, without the courage to confess ignorance. That resulted in confusion to the individual and discredit to the profession. Medical experts should be summoned by the court and examined by the court, and should not be submitted to the badgering of lawyers. The speaker closed with an earnest appeal to all practitioners to be honest in their profession. The true physician should be contented to build up his own character within his own sphere, as a man of knowledge, fidelity, and honor.

The next address was a dissertation by Dr. W. R. Bartlett, of New Haven, on

THE PRINCIPLES OF HYGIENE AND CONSERVATISM IN SURGERY.

This was a lengthy paper, in which the vicious surgical practices of the past were pointed out and the modern improvements described. He dwelt at some length on and noted the best methods to be employed in preparing patients for severe surgical operations, the after-treatment, etc.

The paper was discussed by Dr. Hosmer, delegate from the State Medical Society of Massachusetts; Dr. Lathrop, of the New Hampshire Society; Dr. Cotting, of Boston; Dr. Webster, of Portland, Me.; and Dr. W. A. Hammond, of New York City.

REPORT OF THE COMMITTEE ON MATTERS OF PROFESSIONAL INTEREST.

Dr. Wainwright then reported on matters of professional interest, and complained sharply of the little assistance given the committee on that subject by the profession of the State, Only one-fifth had replied to their inquiries. A better plan would be to send out the questions at the commencement rather than at the close of the year. A good deal of the work that was formerly done by this committee was being done by the State Board of Health much more fully and acceptably, and a report on vital statistics, etc., would be presented by its secretary.

REPORT OF THE STATE BOARD OF HEALTH.

Dr. Chamberlain, the secretary of the State Board of Health, then read his report. It occupied itself with vital statistics, hygienic policy, and like matters

pertaining to that special branch of medicine, illustrating the history of diphtheria, especially during the year, and its close allies, croup and scarlet fever, with considerations of epidemic and endemic forms of disease, with mortality, tables and charts. A series of apparently sporadic nests of diphtheria were described, and its progress and development, when introduced into new districts. The points illustrating the circular of the State Board of Health on diphtheria were especially noted. There were 425 cases in the place of 589. All but 170 of these were in sets of cases large enough to be considered epidemic.

Dr. Nathan Mayer, of Hartford, read an excellent paper on

YELLOW FEVER.

He described the nature of this dreadful disease, and said that experience had shown that there were but two known remedies—calomel and quinine—sometimes one, sometimes the other, and again both. The speaker, in Newbern, N. C., in 1864, treated with calomel only; to every patient in the first or third stages of the disease, twenty to thirty grains, followed three hours later by two ounces of castor oil; the rest of the treatment to be symptomatic, with this exception: no quinine on any account. The conclusions reached by Dr. Mayer were: that yellow fever in the United States generally owed its origin and spread to importation; that the yellow-fever germ, whatever it might be, possessed a vitality which enabled it after years of dormancy to become active under favorable conditions; that the following might be considered favorable conditions of development, viz.: a southern climate; season of great and protracted heat; soil saturated with the products of animal and vegetable decomposition, which was aggravated by being alternately covered by water and exposed to the sun; more or less contact with the bilge-water and filth of ships, whether they communicated with yellow-fever ports or not; the neglect of sanitary measures; a certain state of the atmosphere that was yet an unknown quantity to us, and which might not be demonstrable; a malarial region; and, finally, the presence of unacclimated material. Where those conditions existed in high potency, it was possible for the yellow-fever germ to develop *de novo*. If the carriers of infection met with few or none of the above favorable conditions, the fever was not likely to spread. Consequently, prophylaxis consisted as much in sanitary regulations as in strict quarantine, both together being the *conditio sine qua non* of immunity. As the disease seemed, besides its effects on the blood, to have its local manifestations in the abdominal viscera, chiefly in a disturbance of the liver and stomach, and in later stages of the kidneys, active purgatives formed an essential point of the treatment.

The next paper was by Dr. R. S. Goodwin, of Thomaston, on

ALCOHOL AS A THERAPEUTIC AGENT.

The author enumerated briefly some of the most prominent physiological effects of alcohol on the human system in health, and defined the position which this important drug should take as a therapeutic agent. The paper did not, however, discuss chronic alcoholism or the extensive catalogue of tissue degenerations which that subject introduced. Dr. Goodwin held that alcohol had, in general, received too much enthusiastic and over-wrought praise as a medicine, and that over-stimulation in disease was not a wise or philosophical mode of treatment. He claimed that alcohol should not be given at the same time as nutrients, nor as a febrifuge in febrile diseases, nor to women during the period of lactation. Alcohol, however, might well be employed as a means of sustaining the heart's action during alarming crises of disease, in the crises of fever, in recovery from shock, in the dangerous syncope following violent hemorrhages, in antagonizing the powerfully depressing influence of morbific agents; also in varieties of nervous disorders by virtue of its sedative influence upon the nervous centres, it might indeed sometimes be of more value than other remedies.

The next paper was on

THE INSANE COLONY AT GHEEL,

by Dr. A. M. Shew, of the Asylum for the Insane at Middletown. The colony of Gheel, Belgium, dated back to the seventh century, and had developed into a great system of government care of two thousand of the quiet, chronic insane. An interesting account of the founding of the colony was given, and Dr. Shew then proceeded to describe the treatment. The patients were first received in the hospital, and were then sent out to live and labor with the families resident in the commune. The better class of patients were provided for in the village; but the others lived with the peasants, and worked in the fields with them. Every hamlet contained restraining appliances; but they were seldom used. Excitable patients were at once transferred to Antwerp or Brussels. Dr. Shew, who visited the colony, was not pleased with the system, for the reasons that there was an absence of good medical care, a confusion of sexes, poorly ventilated houses, lack of wholesome diet, unlimited opportunity for the abuse of patients, and defective curative arrangements.

Dr. W. A. Hammond, of New York city, by invitation of the Society, read a paper on

THE CONSTRUCTION, ORGANIZATION, AND EQUIPMENT OF HOSPITALS FOR THE INSANE.

He contrasted the inhuman treatment of the insane in the past with the kindly and curative methods of to-day, and gave at length his views as to the character and accommodations of buildings to be used for homes of the insane, both the excitable and the quiet. He dwelt at some length upon the asylums of Gheel and Fitz James, and commended the outdoor employment of lunatics as calculated to afford most beneficial effects. He objected to the governmental system of asylums as too close, and claimed that it prevented the proper investigation of abuses. Few asylums are properly equipped; we saw more of methods of restraint than intelligent methods of cure. Dr. Hammond described at length some of the methods of restraint that were employed, and their injurious working, looking at them from a strictly medical point of view. In conclusion, he claimed that the medical fraternity should give more thought to the subject of the cure of the insane, and the management of insane asylums, and manifested a wish that the Connecticut Medical Society would seriously consider this subject in its application in this State.

Dr. Carleton, of Norwich, exhibited a part of a leg-bone, illustrating ununited fracture, and made an interesting statement of the case, which occurred in New London.

By invitation of the Society, Dr. Frank P. Foster, of New York, read an instructive paper on the

USE OF VACCINE MATTER TAKEN FROM THE ANIMAL;

and Dr. R. W. Matthewson, of Durham, a paper on

FIBROUS TUMOR OF UTERUS REMOVED BY LAPAROTOMY.

This closed the readings; and the following voluntary communications were read by title, and ordered published with the proceedings:

"Official Alcohol as a Stimulant," by Dr. D. C. Leavenworth, of New Haven; "Astringents in Diseases of the Conjunctiva," by Dr. F. M. Wilson, of Norwalk; "Perityphlitis," by Dr. E. C. Kinney, of Norwich; "Mortality of the Insane," by Dr. James B. Olmstead, of Middletown; "Registration," by Dr. C. A. Lindsley, of New Haven; "Spasmodic Spinal Paralysis," by Dr. J. H. Trent, of Terryville; "Arsenic Eating," by Dr. P. A. Jewett, of New Haven; "Treatment of the Insane," by Dr. Baker, of Middletown.

The Convention then, at 2.15 P.M., adjourned *sine die*.

The next annual meeting will be held in New Haven.

After the adjournment, the members of the Convention, delegates from other societies, and invited guests, partook of the annual dinner, which was served at Merrill's Café. This was a very enjoyable affair. After the cloth had been removed, brief speeches were made by Governor Hubbard, Charles Dudley Warner, Dr. Hosmer, of the Massachusetts Medical Society; Dr. W. A. Hammond, of New York; and Dr. Cotting, of Roxbury, Mass.; and Colonel Greene, president of the Connecticut Mutual Life Insurance Company. Letters from Dr. Fordyce Barker, of New York; J. G. Batterson, of Hartford; President Pynchon, of Trinity College, and others, were read, expressing their regret that they were not enabled to be present on the occasion. Dr. Wainwright also received, at too late an hour to present it, a letter from Governor Andrews, in which he stated that he could not be present, as he was preparing to start for Washington, D. C., on business connected with the gubernatorial office.

THE AMERICAN ASSOCIATION FOR THE CURE OF INEBRIATES.

Tenth Annual Meeting held in the City of New York, May 13 and 14, 1879.

TUESDAY, MAY 13TH.—FIRST DAY.

THE Association met in the parlors of the Young Men's Christian Association, and was called to order by the President, DR. WILLARD PARKER, of New York. In his opening address the President referred to the magnitude of the study of inebriety, and the increasing interest apparent among medical men all over the country. The confusion of both theory and prevalent opinion naturally followed the first study of all great topics, and was really a hopeful sign. The past year had brought the most convincing proofs that the inebriate-asylum movement was destined to meet the question of inebriety in a more practical manner than any other. Our duty was clear: as long as the laws endorsed the free use of alcohol, so long would there be a necessity for asylums, both inebriate and insane. When the public recognized the necessity of inebriate hospitals, then the need of palace insane asylums would be lessened. He believed he was safe in saying that fully one-third of all our insane might have been saved, had they been placed in inebriate hospitals early in their history. The inebriety from which they suffered would have been checked before it went on to insanity. The Association was destined to occupy a very wide place in educating the public and developing the laws which controlled the complex disorder. In concluding, Dr. Parker urged that the Association should not spend time in discussing any of the theories urged in opposition to its work.

After some preliminary business, DR. J. B. MATTISON read a very excellent paper

"ON CHLORAL INEBRIETY."

In the discussion which followed, DR. PARRISH related a case of a hypochondriac who used opium and chloral alternately, and who made many ineffectual attempts to stop. The withdrawal of these drugs beyond a certain point was attended with severe prostration and violent fever. The doctor had also made the effort, and concluded it was great wisdom to begin again. He mentioned this case as anomalous, and as indicating a condition in which the drug seemed to be demanded for life.

DR. PARKER had noticed a similar case.

DR. MASON had seen a case where morphia was used for years, and the slightest increase or diminution would provoke violent symptoms which necessitated a return to the drug. The patient was living and in fair health.

DR. MATTISON suggested that where opium was used in conjunction with the bromides, the danger of continuing its use was greatly lessened, and in cutting down the use of opium the bromides were most serviceable.

DR. G. M. BEARD, of New York, had had a large experience in the use of narcotics, and had found that they were very often antidotes one to the other. In very troublesome cases of insomnia, he used always combinations of opium, bromides, alcohol, and other narcotics, and by alternating them he had often accomplished his purpose without any entailment or danger. He thought chloral as a medicine would seldom be followed by chloral inebriety if used in that way. In all cases where chloral was used, it should be watched very carefully.

LOSS OF MEMORY AND CONSCIOUSNESS IN INEBRIETY.

DR. T. D. CROTHERS, of Hartford, then read a paper upon the above subject, which was a study of six cases of inebriety, in which the patients had total blanks of memory and consciousness while drinking, and yet went about and transacted business, and gave no evidence of that psychical condition. In one of the cases mentioned, the patient, while in that condition, witnessed an assault and murder, and testified clearly the next day before the coroner's jury, and on the third day recovered his mind and had no recollection of it whatever. He was arrested, and was supposed to have assumed that state for the purpose of shielding the prisoner.

Another case was mentioned, of a business man who lost all memory of events while working over his books. Two days after he awoke in a distant city, and all the interval was a blank, although he had made several important business transactions and seemed perfectly conscious of all his circumstances.

The doctor indicated that cerebral automatism was present in all of these cases, and concluded with a mention of some other cases and some of the medico-legal bearings of these cases.

In the discussion which followed, DR. G. M. BEARD said the cases reported by Dr. Crothers were clearly those of *cerebral trance*, a suspension of some facul-

ties and intensification of others. That was one phase of involuntary life which was rarely studied by physiologists, and was always full of mystery.

Mr. Willett mentioned a case of a man who, while drinking, supposed that he was married, and related all the circumstances with great minuteness, offering to go on the stand and make oath to them. The history showed that it was all a delusion; and from that he argued at some length of the danger of accepting the testimony of inebriates, unless verified by other circumstances, in important trials. He would not infer that they wilfully falsified, but the liability to delusion was great.

Dr. Mason was confident that the testimony of drinking men was always more or less unreliable. He referred to a case of a man of excellent character for veracity, but who had made positive statements, and denied them equally as positively the next day. He was drinking when he made the first statement, although apparently conscious of the import and meaning of his words; the next day he was clearer, and had no recollection of his words the day before. The doctor mentioned a second case of a man who was constantly under some delusion when drinking, and yet it was not observed by his friends, and he gave no evidence of any mental disturbance.

Dr. Parrish thought that such cases were examples of paralysis of memory and will. He had seen many similar cases among the insane and idiotic. The function of memory was suddenly cut off, and the man moved about like an automaton. He might have a fair degree of intelligence left, and yet give no evidence of his real condition. Such cases were full of interest, and were of the greatest practical importance medico-legally.

Dr. Elisha Harris said Dr. Crothers had opened up a new field in his discussion of these cases, and that it threw a flood of light on many of the perplexing problems of the day. They were all types of many criminal cases, where morbid impulses had resulted in morbid cerebration, often traced to inheritance or some exciting cause. The register of memory was so impaired as to be irresponsible. He had seen some remarkable cases where the memory was a total blank. One, of a man who, while drinking, committed a murder, and, when arrested, he recovered his senses, but never could recall the events of the murder in any way. The doctor had seen other cases in which he firmly believed the person had no recollection of any of the events, and had they been well understood, they would not have been consigned to prison. He would not excuse any one for crime which they might have prevented, but these cases should be studied more carefully, and then we should understand the measure of responsibility, and do more exact justice to both the criminal and the outraged rights of society.

Medico-legally, we could not estimate their importance. Inebriety ramified in every neighborhood in the land, and its effects were felt by every section; yet the public were more or less indifferent, and failed to recognize the great fact that those cases should be studied in hospitals, and treated as diseased men. As a measure of economy alone, it would be a great advantage. These cases indicated how wide a field yet remained to be studied, and how many problems of both criminality and inebriety would be solved when we understood them.

The public were awakening to the importance of comprehending inebriety and its practical management.

The Association then adjourned.

Wednesday, May 14th—Second Day.

The Association was called to order by the President.

The first order of business was reports from the Secretary, Dr. T. D. Crothers, of Hartford, Conn., of which the following in an abstract:

The discussions of the effect of alcohol on society to-day were marked by a vague uncertainty and a changing restlessness, unnoticed before. The increased publication of books, papers, and sermons, advocating many different theories and opinions, together with the temperance revivals which had sprung up in all parts of the country, enlisting the press, and rousing up the church, followed by organized societies pledged to carry on the work (all having one common purpose—the suppression of the evils following the use of alcohol), were the most significant signs of the times, and indicated clearly a great upheaval of opinion, to be followed by a wider comprehension of those evils and their remedies.

The establishing of inebriate asylums in the midst of opposition and credulity had gone on quietly in the wake of that continuous agitation, gathering friends and influence wherever the subject and its wants were realized.

The narrow prejudice and ignorant opposition had only served to bring out more prominently the principles upon which they were founded, and behind all the clamor and sneer there was an under-current of facts (increasing every year), pointing distinctly to those asylums for a solution of the many problems of inebriety. Of over thirty inebriate asylums established in this country during the past quarter of a century, only four had suspended and gone out of existence. Considering that they were all experimental, and working without experience or precedent, and without the sympathy and co-operation of the public, their success might safely challenge comparison with any other charity of the age.

It was a well-recognized fact that the asylum treatment of inebriety was more difficult than that of insanity, and had those asylums not met a necessity as imperative as quarantine stations for infectious diseases, or hospitals for the insane, they would have all failed long ago. The early history of insane asylums was marked by many failures and imperfections, but the principles did not change. The conceptions of the work and the application of its principles might be wanting, but the necessity and value was the same. The necessity of hospital treatment for inebriety was established beyond all question. Within two years a very significant movement had begun, which was the commencement of a great revolution of public opinion in regard to asylums.

There had been opened in this country, within this time, over a thousand temporary lodging-houses and eating-rooms for inebriates—places where the poor, homeless victim, after he had signed the pledge, could be taken and cared for until he was able to go out sober and help himself.

Some of those places had five or six beds, others less. Most of them were free. Some charged a few cents, and trusted the inebriate to pay. Many of them were connected with temperance coffee-rooms, and were scarcely known. Some of the temperance eating-rooms had the names of benevolent people, who would give a room and bed to any poor worthy inebriate who was making an effort to get well. In those places they recognized the value of physical aid, and the necessity of food and rest, before the diseased will could be restored. The pledge was first given,

then the physical wants were supplied. The comforts of home and food were furnished either free, or at a cost that was merely nominal, and often clothing was also furnished. Conversation, prayer, advice, personal influence of some friend, watching and protection from old associations, and other temporary means, were employed. Many of those places were managed by societies and reformed inebriates, others by women or churches. The Women's Temperance Union and the reform clubs seemed to sustain the most of those places. In some cities single individuals were supporting little homes of this character, and the purpose of all—to shield and protect the inebriate—was one of the fundamental principles upon which inebriate asylums were based. Without any special notice, and almost unknown in the cities and towns where they existed, those initial asylums were rapidly forming public sentiment, and preparing for a larger and more enduring work in asylums properly organized.

The value of one day's restraint in those homes would bring the most positive proof of the greater good coming from a longer time, with more perfect care and attention. If good food and quiet rest would help to overcome the diseased impulse, it was only a step to realize the value of months of such surroundings, and the possibility of permanent recovery. Those homes were rapidly increasing, and following the track of the great revivals, and they were literally the first efforts of the masses to treat inebriety by rational means. From every one would go out an influence that would far transcend the individual good they could accomplish. The public were ripe for some practical methods of reaching this disorder. A small number of asylums were at work like the videttes of an advancing army. Practical men, both in and out of those asylums, recognized the possibility of making all this vast tide of inebriety support itself in hospitals sustained by law and public sympathy. All the indications were unmistakable, that behind the noise and confusion would be seen the reign of law and growth of homes and hospitals that should meet the demands of the inebriate. The medical profession had also agitated the subject, and during the past year over twenty different papers had been written and read on alcohol and its effects on society, before medical societies in this country, and from all sides came the most cheering proofs that the work of the association was scarcely begun. . . . .

Dr. Elisha Chenery, of Boston, then read a paper

ON THE EFFECT OF ALCOHOL UPON OFFSPRING,

in which he showed the effect of alcohol on the blood-corpuscles, with the changes of tissue, and the pathological conditions which followed. It was a very clear presentation of all the latest facts on the action of alcohol, and the heredity of alcoholized condition.

The paper was very ably discussed by Drs. Willard Parker, Parrish, Mattison, Willett, Mason, and others.

Dr. George M. Beard read a very able paper

ON SOME FORMS OF NEURASTHENIA RESULTING IN INEBRIETY.

Rev. John Willett followed with a paper

ON ALCOHOL AND ITS ORIGIN AND CHARACTER, AS BOTH A BEVERAGE AND A MEDICINE.

These papers were discussed at some length, after which several papers were read by title and referred to appropriate committees.

INEBRIATE ASYLUMS IN EUROPE.

A very interesting report was made by Dr. Joseph Parrish, of Burlington, N. J., of the inebriate asylum movement in Europe.

The following officers were elected for the ensuing year:

For President.—Dr. Willard Parker, New York.

For Vice-Presidents.—Dr. Albert Day, Boston, Mass.; Dr. B. N. Comings, Conn.

For Secretary and Treasurer.—Dr. T. D. Crothers, Hartford, Conn.

For Secretary for Foreign Correspondence.—Dr. Joseph Parrish, Burlington, N. J.

For Committee on Quarterly Journal of Inebriety.—Dr. T. D. Crothers, Dr. T. L. Mason, and Dr. Joseph Parrish.

ANNUAL MEETING OF THE QUEENS COUNTY MEDICAL SOCIETY.

(Special Report for The Medical Record.)

The Queens County Medical Society held its Annual Meeting May 27, 1879, at Mineola; Dr. Blasdale, President, in the chair.

Four gentlemen were admitted to membership, and three were reported favorably by the Board of Censors.

Dr. J. Ordronaux gave a learned address on the subject

"WHAT IS MALARIA?"

saying it was by common consent acknowledged that it could not be defined, it could not be seen, or weighed in scales however delicate, or tested in a retort. It was only known by its effects on humanity, in which it unfavorably complicated other diseases, adding to them the sad result of fatality.

The ancients as well as the moderns had long used amulets, first as charms, and later, pads, enclosing some of the aromatic gum-resins, to keep off or cure diseases by absorption, astutely applying them over the semilunar ganglion and solar plexus. It appeared that they might have the power of attraction, and increasing the positive electricity of the body at night when in its negative and lowest state, supplementing the protective influence the sun exerted by day, and thus buoying up the system against the mysterious, stealthy attacks of malaria.

MIND AND MATTER.

Dr. R. P. Gibson, of New York, by previous invitation read a paper on the above subject, which he treated in a masterly manner, showing much research. He took and well maintained the ground that mind might, in a specially elevated sense, be nourished and vitalized in its attributes by brain nutriment, adapted directly to that end,—saying: "Bones and muscles each require a nourishment differing from one another; so nerve-fibres and brain-atoms may and do require each their different nourishment, and it must be a peculiar refinement of nourishment to be mind or spirit food. It necessitates the choicest selection, the finest discrimination, to attain this mind refinement and vigor; and to accomplish the object of raising an ordinary *sound* mind to a higher plane of capability of action, and that other point of restoring a partially *lost* mind to a sound condition. This alimentation may consist of choice foods containing appropriate constituents, and administering lacking constituents in the concentrated shape of pharmaceutical preparations." He urged the previously raising

the body to the highest standard of health; and, as a prerequisite to both, to eliminate by effective, far-reaching methods the débris and ashes of the system. Thus to attain the ultimatum of a *mens sana in corpore sano*, he emphasized the importance of the use of special systematic local exercises applied chiefly to the chest; to enlarge the chest and increase its mobility, and to strengthen the respiratory muscles, as the means of obtaining an ample supply of air and oxygen; to fully decarbonize and purify the blood and perfect digestion—means by which he has derived much benefit in the treatment of "diseases of the lungs and throat." That he considered a highly important addendal treatment, adjuvant and auxiliary to all the remedies and aids so widely in vogue, and with many good results in the medical profession at large.

Dr. Gibson's paper was highly appreciated, and he was invited to prepare another, to be read at the semi-annual meeting of the Society in October.

OVARIAN TUMOR.

Dr. John Davidson reported a case of ovarian tumor; and by the continued use of a saturated solution of chlorate of potassium he made a complete cure.

Dr. Webb regarded it as impossible, and stated that in a post-mortem case the same quantity of chlorate of potassium produced ulceration of the stomach, ending in perforation of the organ and death of the patient.

Dr. Davidson stated that the patient in question could be seen by any member of the Medical Society, and that she would give the points of her case.

Dr. W. D. Wood asked Dr. Davidson whether Dr. T. Gaillard Thomas had diagnosed the case as one of ovarian tumor.

Dr. Davidson replied in the affirmative, adding that at the present time no tumor could be found.

Dr. Trask stated that he did not think the patient's statements should be taken into consideration, and he had never known a case of ovarian tumor cured by the use alone of chlorate of potassium.

RECORD-BOOKS FOR DISEASES.

Dr. Bell stated that he would send record-books gratuitously to the physicians in the county who desired to use them.

Dr. Whitney sent a specimen of

"OSSIFICATION OF THE SPLENIC ARTERY."

Dr. Blasdale exhibited a specimen of

MAMMARY CANCER

which he removed from an aged lady, who made a rapid recovery.

COMPLIANCE WITH THE NEW MEDICAL LAW.

The new medical law, whereby all regular physicians and surgeons are required to register their names, place of birth, residence, and where graduated, in a book kept by the County Clerk, was complied with before Mr. Van Cott, notary.

The following are the officers for the ensuing year:

For President.—Dr. Richard S. Seaman.

For Vice-President.—Dr. Wm. D. Wood.

For Secretary.—Dr. A. G. J. Finn.

For Censors.—Drs. Banks, Fallon, Ludlum, Nadal, Ferrer.

Delegates to American Medical Association.—Drs. Trask and Frye; *alternate*, Dr. Overton.

Delegate to Kings County Medical Society.—Dr. Whitney.

Delegate to Suffolk County Medical Society.—Dr. Skinner.

Delegate to State Medical Society.—Dr. Bogart; *alternate*, Dr. Bell.

Unanimously elected.

(Signed) W. D. Wood, M.D.,
Secretary.

Correspondence.

DOES SUCCESSFUL VACCINATION PROVE THAT SMALL-POX HAS NOT BEEN RECENTLY EXPERIENCED?

To the Editor of The Medical Record.

Dear Sir:—I am led to ask the above question because of the following experience: On the 26th of March last there came to my office a patient with an eruption upon face and hands, which, from the history, appearance, and odor, I pronounced a mild case of small-pox. He was accordingly quarantined, and, of course, the family with whom he lived. Another physician saw the patient with me the fifth day of the eruption, and did not think of its being else than small-pox. During my service of several years as the quarantine physician of Boston, I saw and treated several hundred cases of this disease. From beginning to end of my relations with the case here mentioned, I never had a doubt but I had a case of small-pox. I think so still. At the end of two weeks my patient obtained "free pratique," and, not having been very sick, and having but one or two pock-marks, he doubted if he had had the disease.

He went to an "irregular" physician first, who told him he had not had small-pox, and to "prove it" vaccinated him. To all appearance the vaccination ran a regular course. Several physicians, "regular" and "irregular," saw it, and expressed the opinion that small-pox could not have been experienced recently. One physician, a member of the Massachusetts Medical Society, gave the patient a written statement that he "had not had small-pox within five weeks" (and also very kindly (?) advised him to "sue for damages"). In the mind of the public I am considered to have made a mistake, and my case seems likely to get into court. In "Seaton's Hand-book of Vaccination," page 279, I find that among the soldiers of the British army, not recruits, there were many more successful vaccinations among those who had had small-pox than among those who had neither had small-pox nor had been previously vaccinated. On page 281 of the same work, I find a quotation from Jenner as follows: "Although the susceptibility of the virus of the cow-pox is for the most part lost in those who have had small-pox, yet in some constitutions it is only partially destroyed, and in others it does not seem to be in the least diminished," and on such, vaccination takes "in the most perfect manner."

In Wood's Practice (fifth edition) mention is made of successful vaccinations on those who had had small-pox.

I shall be very grateful to any brother physician whose attention may be called to this letter, if he will inform me, either by letter or through the columns of the Record, of any experience or literature to the point upon my case. From the fact that some

of my medical friends were surprised to find even a hint that vaccination would "take" after small-pox, I think the subject may be one of interest to others besides myself.

Very truly yours,
C. IRVING FISHER.

HOLBROOK, MASS.

MORTALITY OF SCARLATINA AMONG THE TENEMENT-HOUSE POPULATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Under the above heading, you refer, in THE MEDICAL RECORD of May 10th, to the experience of Dr. D. W. Perham, one of the district physicians to the North-Eastern Dispensary, which would appear to indicate a surprisingly light mortality, and it occurs to me to say that the epidemic of scarlatina which we have witnessed during the past winter, although noted for the very light mortality accompanying the febrile stage has, in very many cases, been followed by attacks of scarlatinal nephritis, in which the mortality has been correspondingly high, if I am to trust the reports of my associates and my own experience. Indeed, it became a subject of remark among many practitioners that they had been unaccustomed to so great a degree of kidney trouble following the recovery of their patients from the febrile stage. This is quite consistent with Dr. Perham's experience in his dispensary practice, since it is by no means unlikely that his cases may have passed from under observation before the symptoms of scarlatinal nephritis became developed.

The fact that scarlatinal nephritis appears to be more common when the eruptive stage is not very intense in character, is mentioned by most writers, and has become an accepted belief.

F. A. CASTLE.

102 E. Fifty-seventh Street, New York,
June 4, 1879.

NORTH CAROLINA BOARD OF HEALTH.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue of the 26th April you make some complimentary remarks about the North Carolina Board of Health Law, and say that, "but it is not given any power in connection with licensing or regulating medical practice, as is done in some of the Western States." Very true! But North Carolina has had a "State Board of Medical Examiners" since 1859. It is an auxiliary of the State Medical Society, as is the State Board of Health; and as there has been little or no opposition to it, the Board has increased in strength and usefulness, and is the oldest licensing body, independent of a college, in the South.

Yours very truly,
THOMAS F. WOOD.

WILMINGTON, N. C., May 28, 1879.

NEURITIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The paper of Dr. Putzel, in the RECORD of April 26th, is a valuable addition to the clinical evidence of neuritis migrans. Until a larger measure of pathological evidence shall be adduced, any professional and accurate opinion of the merits of the discussion between Feinberg on the one hand and Rosenbach on the other will be impossible. I have been able to demonstrate quite satisfactorily, at least to my own mind, that irritation of the sciatic nerve in the rabbit destroys the electrotonos of the nerve-current, so that it will not respond to the galvanic current, and will give but feeble reaction to the induced current. This is natural when we remember that it is the galvanic current which causes that modification of nerve-current to which the name electrotonos has been given. Between the anode and cathode of the nerve so irritated there was very slight manifestation of electric sensibility; neither were there manifest any of the responsive symptoms of the healthy nerve in the extra-polar region, when either or both electrodes were applied over the seat of the irritation. Beyond the focus of irritation the nerve-current was normal for two days. On the third day the extra-polar region exhibited signs of insensibility to both currents for a distance of about five mm., while the portion primarily acted upon by the caustic showed evidences of degeneration. This condition extended to the muscular branches and greatly modified the tonicity of the muscles supplied by them. On the seventh day the rabbit was partially paralyzed in both hind legs; there was no electro-muscular contractility and but little electro-muscular sensibility. Death on the twelfth day. Except upon the theory of "reflex inhibitory action" it would be difficult to account for certain cases of paralysis. I have met with an instance which would seem to bear out the theory of reflex paralysis. A married woman, forty-seven years old, suffered with an acute attack of congestion of the cervix uteri, and coincidently with it there was total loss of power—complete paralysis of the lower extremities. The congestion yielded to appropriate treatment, and with its subsidence the paralysis entirely disappeared, and she has never since that time been similarly afflicted.

HORATIO R. BIGELOW, M.D.

WASHINGTON, D. C., 1009 12th Street, N. W.

Obituaries.

JOHN THOMSON DARBY, M.D.

DR. DARBY, late Professor of Surgery in the Medical Department of the University of the City of New York, died on Monday, the 9th inst., after a lingering illness. He was born at Pond-Bluff Plantation, St. Matthew's Parish, S. C., on the 16th of December, 1836, and was a descendant from English colonial residents of the province of the Carolinas. His early education was acquired at Mt. Zion and South Carolina colleges. He pursued his first regular course of medical lectures at the Medical College of Charleston, and graduated as a doctor of medicine at the University of Pennsylvania in 1859, having been a private student of Professor Leidy. After graduating he became an interne of the St. Joseph and Philadelphia hospitals, gave private courses of instruction on surgery, and was made demonstrator in the Chant-Street School of Anatomy, then conducted by Dr. D. H. Agnew. He practised medicine in Philadelphia until the breaking out of the civil war, when he returned to his native State, and at once was appointed surgeon in the Confederate army. He served in the field from May, 1861, until the surrender, in May, 1865, having held, in succession, the position of surgeon to the Hampton Legion, and chief surgeon and medical director in various commands of the armies of Virginia and Tennessee. During the war he was sent

to Europe on a mission connected with the Medical Department of the Confederate States, where he devoted four months to a general study of the hospitals of London and Paris. At the close of the war he returned to Europe, and pursued his studies, both in the hospitals of Great Britain and of the Continent. He served as a volunteer field surgeon in the Prussian army during the German war of 1866. In 1868, while still absent in Europe, he was elected to the chair of Anatomy and Surgery in the University of South Carolina, and, on his return, established himself in Columbia. He subsequently resigned this position, and, in 1873, accepted the professorship of Surgical Anatomy in the Medical Department of the University of the City of New York. In the following year he was elected Professor of Surgery in the same institution, which position he held until a short time before his death, when he was made Emeritus Professor. At the time of his death he held the position of Visiting Surgeon to Bellevue and Mt. Sinai Hospitals of New York, and was a Member of the Medical Society of the County of New York; the New York Academy of Medicine; the Academy of Sciences, Philadelphia; Permanent Member of the American Medical Association; and several local medical societies. He was also ex-President of the State Medical Association of South Carolina. Dr. Darby was a genial gentleman, and a favorite medical teacher. His skill as a surgeon was fully recognized by his colleagues, and by those who had opportunity of witnessing some of the more brilliant of his operations. Among his contributions to medical literature the more prominent are: "A Thesis on the Anatomy, Physiology, and Pathology of the Supra-Renal Capsules;" "Campaign Notes on the German War of 1866;" "Horse-hair as a Ligature and Suture;" "Liquid-Glass as a Surgical Dressing;" and "The Trephine in Traumatic Epilepsy."

FRANCIS FONTAINE MAURY, M.D.

On Wednesday evening, June 4th, at about half-past nine o'clock, Dr. F. F. Maury, a very prominent and talented Philadelphia surgeon, died at his late residence, No. 1218 Walnut Street, Philadelphia, in the thirty ninth year of his age, after an illness of over two months' duration, the immediate cause of his death being congestion of the lungs. Between two and three months ago Dr. Maury accompanied the late Colonel Samuel S. Moon on a trip to the Hot Springs, Arkansas, where Col. Moon went for his health, Dr. Maury travelling with him as medical adviser. When he left the city, Dr. Maury's wife was in perfect health, but was seized with acute peritonitis during his absence, and died just before he returned home. The husband was overwhelmed with grief at this sudden loss, and soon afterwards was taken sick himself, and continued to grow worse until he was seized with the attack which carried him off.

Dr. Maury was born in Danville, Ky., on the 4th of August, 1840. His father was a clergyman, and was born in Virginia, and descended from a French Huguenot family. The deceased was educated at Centre College, Danville, and graduated in 1859. He attended his first course of lectures at the medical department of the University of Virginia, but went the next year to Philadelphia, and graduated at Jefferson Medical College in 1862. Since his graduation, Dr. Maury has always lived and practised in Philadelphia. He was the first surgeon in the United States to perform the operation of gastrotomy.

Dr. Maury edited *The Photographic Bureau of Medicine and Surgery* for two years, and published a number of reports of medical and surgical cases. He was surgeon to the Jefferson Medical College Hospital, and it was largely through his efforts that this hospital was established. He was also one of the surgeons to the Philadelphia Hospital, and during the war was Surgeon-in-chief of the United States Army Hospital at Twenty-fourth and South streets, Philadelphia. He was lecturer on venereal and cutaneous diseases in Jefferson Medical College, and was also a fellow of the Philadelphia College of Physicians and Pathological Society.

At the time of his death Dr. Maury was surgeon to the First City Troop, of Philadelphia, and had held that position for some time. He served as coroner's physician several years ago. Dr. Maury came to Philadelphia as an entire stranger, but his success in his profession was remarkable and immediate. His specialty was venereal diseases. The deceased leaves two young children.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 1 to June 6, 1879.

BENTLEY, E. Capt. and Asst. Surgeon. Granted leave of absence for one month. S. O. 88., Dept. of the South, June 2, 1879.

EWEN, C., Capt. and Asst. Surgeon. Assigned to duty at Fort Elliott, Texas. S. O. 107, Dept. of the Missouri, June 2, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 7, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
May 31, 1879.	0	2	112	8	40	24	2	0
June 7, 1879.	0	6	101	2	54	23	6	0

THE AMERICAN NEUROLOGICAL ASSOCIATION. The American Neurological Association will hold its Fifth Annual Meeting, in Municipal Hall, 67 Madison Ave., New York city, beginning at 2.30 P.M. Wednesday, June 18th, and the profession are invited to attend the meetings of the Association on the 18th, 19th, and 20th.

AN ACT FOR THE RELIEF OF DR. WILLIAM A. HAMMOND.

WAR DEPARTMENT,
WASHINGTON CITY, May 12, 1879.

SIR:—I have the honor to enclose herewith draft of a bill to amend an act entitled an act for the relief of William A Hammond, late surgeon-general of the

army, approved March 15, 1878, and to recommend the passage thereof. I have the honor to remain,

Your obedient servant,

GEO. W. McCRARY,

Secretary of War.

Hon. Samuel J. Randall, Speaker House of Representatives.

Be it enacted, etc., That the act entitled an act for the relief of William A. Hammond, late surgeon-general of the army, approved March 15, 1878, be, and the same is hereby amended by adding to the first section thereof the following proviso: *Provided*, That the President may in his discretion consider any newly discovered evidence, or any evidence improperly excluded upon the trial of said Hammond touching the truth or the falsity of the charges upon which he was tried.

INTESTINAL OCCLUSION CURED BY INJECTIONS OF SELTZER-WATER.—Dr. Prunac adds another to the cases of volvulus already reported as cured by rectal injections of Seltzer-water. The patient, a man seventy-five years of age, had suffered for three months from severe diarrhœa, when the passages suddenly stopped, and for five days he passed neither fæces nor gas per anum. The other symptoms were fecal vomiting, frequent hiccough, anxious facies, cold, clammy perspiration, small, quick pulse, and intense tympanites with consequent dyspnœa. After the failure of several other methods of treatment, an œsophageal catheter was introduced almost its entire length into the rectum, its external opening was fitted to the tube of a siphon of Seltzer water, and the contents of three siphons (about two quarts) were injected into the intestine. This was followed by the injection, by ordinary means, of another quart of the water. A few hours later the obstruction gave way, and large quantities of fluid and solid fecal matters and gas were passed per anum. The symptoms at once began to improve, and after five days the recovery was complete. Dr. Prunac thinks the employment of the siphon preferable to simple injections of gaseous water; its advantages are of a more forcible projection of the fluid and complete retention of its gaseous constituents.—*Gazette des Hôpitaux.*

POISONING BY CYANIDE OF POTASSIUM.—Dr. Warneck, of Kiel, reports the case of a man, who took, with suicidal intent, nearly 45 grains of cyanide of potassium. The principal symptoms were immediate loss of consciousness, vomiting of food and of a fluid having the odor of bitter almonds, profound coma, viscid perspiration, coldness of the extremities, cyanosis, convulsive twitching of the eyes, dilatation of the pupils, abolition of motion, sensation, and reflex excitability, irregular and superficial respiration, small, irregular pulse, 120 to the minute, fall of the temperature to 97 .2° F., and involuntary micturition. Dr. Warneck injected half a drachm of sulphuric ether subcutaneously, and then washed out the stomach until the water used no longer had any odor of bitter almonds. The condition of the patient, however, rapidly became worse, the respiration becoming more irregular and the pulse smaller, despite repeated injections of ether. He was then placed in a bath at 91½°, and iced water was poured over the head and the nape of the neck. Every time the water was poured on the head, the patient drew deep inspirations. Gradually the respiration became deeper and more regular, and all the dangerous symptoms disappeared after a bath of one hour. Convalescence was rapid, but a general muscular weakness and an impairment of speech persisted for a long time.—*Lyon Médical.*

"THE PHYSICIAN AND SURGEON."—We have just received the first number of a new Western journal, entitled *The Physician and Surgeon*, and edited by V. C. Vaughan, M.D., Ph.D. It is to be a monthly, and devoted to *practical* medicine and surgery. There are five associate editors. This first number contains several interesting original articles, and the abstracts are well selected. It is well printed on heavy paper.

"THE CHEMIST AND DRUGGIST," of Philadelphia, has changed its title and publishers: the former is "*The Monthly Review of Medicine and Pharmacy;*" the latter are Keasbey and Mattison.

THE CASE OF DR. GROUX, THE MAN WITHOUT A STERNUM.—Dr. Charles Jewett has an article, in the Proceedings of the Kings County Medical Society, on the anatomy of Dr. E. A. Groux, lately deceased. For many years the latter went from college to college exhibiting his chest minus a sternum, and an apparent ability of voluntarily suspending the heart's action.

PYROGALLIC ACID IN HÆMOPTYSIS is highly recommended in hæmoptysis, metrorrhagia, and other internal hemorrhages on account of its small dose, its not deranging the stomach as other remedies do, because it is easily taken and has no disagreeable aftertaste. It is asserted to be more rapid and certain in its action than gallic or tannic acid, ergot, pil. plumbi cum opio, etc. It is soluble in water or spirit.

SALICYLIC ACID IN DYSPEPSIA.—Prof. Kolbe, of Leipzig, took gr. xv., in divided doses, daily for dyspepsia during *nine months*, not only without any unpleasant symptoms or album in his urine, but with the effect of curing his dyspepsia and improvement in general health.

DANGEROUS COLORS IN WALL-PAPER.—Mr. L. Siebold, of London, found arsenic in 50 out of 60 samples of wall-paper of various colors, blue, red, brown, pink, etc. This fact may assist us in explaining the cause of many slight attacks of functional derangements in children which so puzzle the mother and doctor.

CHINESE ANATOMY.—The Chinese physicians are not necessarily skilled anatomists or accomplished physiologists, since, at a recent inquest at San José, Dr. Cog Fy, the attendant physician upon the deseased, to the question: "How many lungs has a man?" replied: "Seven." He further stated there are five holes in the human heart, and that the function of the latter is "to catch air in."

THE MEDICAL REGISTER of New York, New Jersey, and Connecticut for the year commencing June 15, 1879, has appeared, Dr. William T. White, editor; G. P. Putnam's Sons, publishers. In addition to the usual material, the present volume contains valuable statistical tables. The book reflects credit upon the editor, upon the Medico-Historical Society, and upon the publishers.

BOOKS RECEIVED.

DISEASES OF THE THROAT AND NASAL PASSAGES. By J. SOLIS COHEN, M.D. Second Edition. Revised and amended. New York: Wm. Wood & Co., 1879.

COMPENDIUM DER FRAUENKRANKHEITEN ZUM GEBRAUCHE FÜR STUDIRENDE UND AERZTE. Von DR. C. G. ROTHE, prakt. Arzt in Altenburg. Mit 50 Holzschnitten. Leipzig: Verlag von Ambr. Abel.

POSOLOGICAL TABLE, including all the officinal and the most frequently employed unofficinal preparations. By CHARLES RICE, Chemist Department of Public Charities and Corrections. New York: Wm. Wood & Co., 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 21, 1879.

THE NATURE, CAUSES, AND PREVENTION OF THE INFECTIOUS DISEASES.

At the last meeting of the London Pathological Society, the committee appointed to inquire, at the suggestion of the late Dr. Murchison, into the nature, causes, and prevention of the infectious diseases known as pyæmia, septicæmia, and purulent infection, made its report. The report was voluminous, and embraced observations made under three heads: etiology, semeiology, and pathology. The deductions reached relating to the etiology of pyæmia and septicæmia, and based on statistics taken from ten large London hospitals, are very interesting. The committee accepted the recognized distinction between pyæmia and septicæmia, consisting in the presence of metastatic abscess in the former only, and first directed their attention to the subject of artificial septicæmia. For this form of septicæmia they use the term "septic intoxication," and, although their calculation has been made only approximately, they believe that for its development introduction of as much as two or three ounces of putrid serum into the blood at the same time is necessary. To permit this, two conditions are requisite: first, opportunity for the accumulation of fœtid discharge; and second, a large absorbing surface. This is the form attended by the greatest mortality, and doubtless obtains in many cases of rapid death after ovariotomy. The morbid anatomy of this form is represented chiefly by softening of the spleen, subserous hemorrhage, and fluidity of the blood. As far as could be ascertained, the effects produced by infection from one patient to another, ordinary septicæmia, were very nearly the same as those produced by rapid septic intoxication, except that they are spread over a longer period of time. Koch, however, first showed that there is an anatomical difference between them, and that in all cases of ordinary septicæmia—septic infection—the blood contains organisms. The report contained the detailed histories of twenty-nine cases of septicæmia, of which two were cases of rapid septic intoxication.

PYÆMIA.

While the committee retained the ordinary definition of the term pyæmia in the 127 cases reported, they make no fewer than eight subdivisions of this form of blood-poisoning. They base these subdivisions mainly upon the situation and relations of thrombosis and softening clots to secondary abscesses, and thus give separate places to the pyæmia following acute necrosis and ulcerative endocarditis. This seems to us like an unnecessary refinement, and has the appearance of a distinction without a difference. With reference to organisms, they were found in nearly all the cases in which the blood was examined, but there was no constant proportion nor constant uniformity of size and shape. The committee did not attempt to trace relations between the different forms described, simply state the facts, and state that they believe the facts justify the conclusion that the organisms are evidence of the existence rather than the cause of the blood-poisoning.

The histo-pathological investigation was remarkably thorough, and was attended by a singularly uniform result. The spherical form of organisms—micrococci—were present in large numbers in all parts, but bacteria were found in only two cases, and, in one of those, they were probably due to decomposition. There is, doubtless, some explanation for the fact that bacteria were found in the blood in many cases during life, while in only one case were they found after death, but like wise men the committee did not give an expression of opinion upon this point. The report is doubtless the most complete that has been offered upon the subject of pyæmia and septicæmia, and will prove a most valuable aid in the future study of infectious diseases.

THE REPORT ON THE STATE INSANE ASYLUMS.

The Senate committee, to inquire into the condition of the insane of the State, after a certain amount of investigation, reported back that the asylums were in excellent condition, particularly the State Lunatic Asylum, and that the wanton attack upon them was unworthy of the profession and degrading to the dignity of the State. The spirit of the report seems to be to bring out prominently all the favorable facts, and ignore everything of a contrary nature.

This result of the committee's investigations was doubtless due in part to the powerful political influence of asylum superintendents, and partly to the inefficient manner in which the petition for investigation was framed and supported. For this document covered only part of the ground that might have been taken, and it expended much of its force upon petty complaints against asylum superintendents and unim-

portant details of management. The whole investigation was so interwoven with personal and political feelings—so much more a fight than an inquiry—that its ever having been undertaken is much to be regretted. Although it may produce a certain amount of benefit by inciting those in charge of asylums to more vigilance in discharge of their duties, its general effect will be to give the public the impression that everything is as good as it can be in connection with the State insane, and to discourage further attempts at reform.

We hope it will not be forgotten, however, in spite of the eulogistic statements of the committee that there are many very radical defects in the management of our insane, and we believe that some of our asylum superintendents are not only cognizant of that fact, but are desirous that changes should be made. No amount of partisan rhetoric can disguise the fact that though the State has spent four millions in extravagantly designed insane asylum buildings during the past ten years, there is, nevertheless, almost as much overcrowding now as ever; further, that nearly two-thirds of the State insane are still in badly managed county asylums and poor-houses; that early and efficient treatment of the insane is generally impossible; that the asylums have, as a rule, insufficient attendance and too much physical restraint; that, in fine, with our insane every year increasing, and with the spasmodic erection of costly and unwieldy asylums furnishing no adequate relief to this increase, we need some radical changes and reforms in the matter in question. The declarations and fulsome eulogies which resulted from the recent incomplete investigation should not blind the public to these facts.

Senator Goebel, who quoted the praises, by the English alienist, of the State Lunatic Asylum, forgot entirely to quote the scathing criticisms from the same person upon other State institutions where, perhaps, he had not been entertained so liberally.

THE NATIONAL BOARD OF HEALTH.

The National Board of Health has been in session in Washington during the past week. Regulations were adopted with regard to maritime quarantine, making it the duty of consular officers to keep themselves thoroughly informed as to the existence of infectious diseases in the neighborhood of their stations, and requiring the master of every merchant ship sailing from a port where there is such an officer to procure a bill of health that shall be either clean or foul, according as the disease does or does not exist at said port. Provisions have also been made for care in excluding from ships passengers or goods suspected of being infected, and for proper attention to cleanliness. These are substantial advances towards an effectual quarantine against such diseases as cholera, yellow fever, small-pox, typhus fever, and others of like character.

The National Board of Health, under the recent law, is also required to co-operate with State and municipal organizations, and recommendations have been made looking towards an effective system of internal quarantine. We trust there will be no conflict between authorities upon questions, the proper decision of which is so important to the common weal. It seems to be accepted that a national quarantine can be established that will not in any way interfere with the varying interests of the ports along the entire Atlantic coast, and yet prove an effectual barrier against an invasion by epidemic diseases. We hope that the most sanguine expectations of the Board and of the people will be realized by a careful execution of the present law.

THE ABUSE OF MEDICAL CHARITY.

We publish this week the last discussion held on the above subject before the Medical Society of this county. Some plain facts have been given, and so long as the abuse continues to exist and to increase, it should not be forgotten by the profession and by the public. An important point made in the paper read by Dr. Sturgis, and sustained by several who participated in the discussion, was that physicians were largely, if not entirely, responsible for this ill-conditioned nuisance. If the putrescence is in our own household, there should be sufficient vitality and sanitary science in the profession to remove it, or at least so correct its foul odor that it will not rise as a stench to the nostrils of honest philanthropic men and women. If genuine honesty of purpose can be instilled into the hearts of all who now hold, as well as those who, while under the excitement of the last emotion to do charity, make application for dispensary positions, and we believe there is room for the medicament, it will do much towards suppressing the growing evil. The question has its knotty points; but there is no doubt that an educated public opinion, fortified by a sturdy declaration on the part of the medical profession that, having rights, they dare to maintain them, can establish a permanent and radical reform. The remark incidentally made by one of the speakers, that the profession and the city would be better off were all the dispensaries wiped out, is worthy of candid consideration. The resolution adopted by the Society is a favorable step, and we hope its existence will be daily remembered.

MEDICAL CERTIFICATES.

Still they come! Organisms from Bilbo! Last of all, a certificate attached to a lager-bier advertisement, originating at the capital of the State, and signed by three gentlemen of recognized good standing in the medical profession.

The healing properties of the Richfield Springs are embalmed in the memories of thirty-two medical gentlemen from New York, Philadelphia, Boston, and other cities, deservedly eminent in their profession, and their names appear in a circular which goes wide spread asking that bread be cast upon their waters. There they are, and if the trouble is in your eye or ear the virtue of the water can be attested; if you have a friend who is insane, he need not grow gray with the malady, for the doctor has been to the pool; if your respiratory organs are weak, lung doctors can suggest where they may be strengthened; if large doses irritate your gastric mucous membrane, and disturb the tranquillity of your conscience, the small-pill man can transform the sombre covering into a delicate *gray* robe; if the promontory on your face has met with misfortune and sadly needs a plastic operation, you can be posted in that particular; and if you belong to the class, so numerous, who suffer from general debility, staid general practitioners can guide your feet to the healing fountains.

Saratoga, one of the pioneer watering-places, disliking to be outdone by honest competition, sends greeting to the world, and throws to the breeze her banner bearing the names of those who can tell how an easy *delivery* from the thraldom of disease can be effected.

While we do not care to look over the precipice, and are not yet prepared to believe that the time will come when it will be necessary for physicians of eminence to placard their backs with the plain words, "Commit no nuisance under penalty of law," we fear there are many in our ranks who either intentionally or indifferently are hastening the dawn of that unfortunate era. What a conglomeration of counsel is represented by the names! As we scan the list a ray of hope is obtained only in the thought that, in this, as in certain other propositions, "there is safety in numbers." There are allopaths and homœopaths, wolves in sheep's clothing and goats by the name of scape; the seer and the verdant, with portraits at full length, reflected either in the beer-vats of Albany or the delicious medicinal waters of Richfield and Saratoga.

A SUBSTITUTE FOR HANGING.

Protestations against the present method of executing criminals have been frequently and urgently made; but they have not as yet secured much attention from our legislators. The difficulties of changing a long-established practice are immense, especially when such practice is one that no person can fail to feel some delicacy in claiming a personal interest in. In addition, it has generally been thought, and we believe rightly, that most of the cases where death has failed to take place at once have been due to carelessness and lack of skill on the part of the executioner, and not the fault of the method itself. The subject has, however, been considered recently, with more than usual care, by Dr. Packard, of Philadelphia; and this gentleman urges, as the result of his examination, that death should be produced by carbonic oxide. He proposes that the victim should be placed in a small, air-tight room; the air should then be rapidly replaced by carbonic oxide gas, when death will take place in the most rapid and painless manner known to science. In ten minutes, indeed, the corpse can be removed from the room and identified by the jury. The process, as compared with those cases of hanging, not very frequent, where the death-struggle lasts for five, or even fifteen minutes, certainly seems superior. After all, however, when hanging is properly done there is scarcely any practicable mode of extinguishing life that has so many fatal elements in it. According to Hoffmann, of Vienna, there takes place when the noose is suddenly tightened a complete closure of the carotids and jugulars, which arrests the circulation in the brain; a pressure on the pneumogastrics, which may even of itself cause unconsciousness; an occlusion of the trachea, and possibly a rupture of the odontoid ligaments, and pressure on the medulla. And all these are certainly enough. M. Fleischmann, by experiments on himself, proved that in the act of hanging there was no pain, but merely, at first, a ringing in the ears, then a flash of light, and then unconsciousness. Various investigations, therefore, seem to indicate that hanging may be made the most humane and effective method of execution, if properly carried out. But it is certain that those who superintend the matter in our country need more knowledge and skill in regard to the application of this judicial process.

Reviews and Notices of Books.

A GUIDE TO THE QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE URINE. By DR C. NEUBAUER and DR. J. VOGEL. Translated from the seventh German edition by E. G. Cutler, M.D.; revised by E. S. Wood, M.D. pp. 551, 8vo. New York: Wm. Wood & Co. 1879.

A WORK that has already reached seven editions in the original, and has been translated into other European languages, hardly requires recommendation now that it again appears in an English form. There are but two exhaustive treatises on this subject extant: that of Thudichum, which has been before the profession for twenty years or more, and the one now before us. The work is divided into two main parts; the first by Neubauer, which treats the subject from a chemical standpoint only, and that by Vogel, which considers the semiology of the urine, and points out the relations between the observed chemical changes and the alterations of the system that have given rise to them. In other words, the inquirer is enabled to ascertain not only the abnormalities of the urine, but also the pathological states of which they are the indications.

The first part of the work is divided into three por-

tions, embracing the physical and chemical properties of normal urine, the normal and abnormal constituents of urine with the methods for their detection and isolation, urinary sediments, and accidental and medicinal constituents. A hundred pages are then devoted to the methods for the performance of qualitative estimations; these are followed by thirty pages devoted to the systematic analysis of the urine, including the recognition of sediments under the microscope and methods for their permanent preservation.

Dr. Vogel's contribution to the work embraces two hundred pages and contains a large collection of valuable matter that would otherwise have to be sought in the pages of many books. The work is embellished with three lithographic plates, representing the microscopic appearances of the urinary sediments and a chromo-lithographic chart or color table of the urine, together with a colored spectrum showing the blood-bands. The paper is excellent and the type large and clear, and the copy before us is bound in a reddish leather that forms an agreeable contrast to, and change from the light colored sheep bindings with which we have so long been familiar. It also appears to be a stronger leather than that in general use, and impresses us as being more durable.

THE BRAIN AND ITS DISEASES. Vol. I. SYPHILIS OF THE BRAIN AND SPINAL CORD. THOMAS STRETCH DOWSE, M.D. London: Baillière, Tindall & Cox. 1879.

THE little work of Buzzard has been hitherto the only book in the English language dealing with nervous syphilis alone, and as this work was fragmentary and appeared some time before the translations of Heubner, it was necessary to consult French and German authorities, if extended information was needed. Dr. Dowse's volume is therefore a welcome addition to this branch of neurological literature. It is divided into eight chapters, the first of which treats of the "History and Nature of Syphilis," but a photograph of syphilitic disease of the rectum is presented which strikes us as strangely out of place in a book which takes for its subject an organ situated at the other end of the body. Subsequent chapters are devoted to the diagnosis of "Syphilis of the Brain and Spinal Cord; Sympathetic System of Nerves; of the Peripheral Nerves," etc. Chapter V. deals with "Treatment," VI. with "Hereditary Syphilis," VII. with "Syphilitic Epilepsy," and VIII. with "Pathology." Leaving the first chapters, which contain but little that is new, we turn our attention to those upon diagnosis, which are exceedingly practical, and present cases which very appropriately illustrate the subject. This criticism, however, does not apply to "Diseases of the Sympathetic System," for Cases X. and XII. show absolutely no peculiar characteristics, and would pass equally well for examples of ordinary dysæsthesia or hypochondriasis, which might be due to any, or even no cause whatever.

The article on "Syphilitic Epilepsy" is very full and ably written, and the chapter upon "Pathology," though not so complete as it might be, shows, nevertheless, original research. We regret that more attention has not been paid to the mental changes so peculiar to certain forms of syphilitic disease of the brain.

The typography of the book is good, and the paper is excellent. The illustrations, with the exception of that already referred to, and a woodcut on page 72, are quite good. The latter cut is exceedingly bad and shows nothing whatever.

A CLINICAL TREATISE ON DISEASES OF THE LIVER. By DR. FRIED. THEOD. FRERICHS, Professor of Clinical Medicine in the University of Berlin, etc. In three volumes. Vol. I., translated by Charles Murchison, M.D., F.R.C.P. New York: Wm. Wood & Co., 27 Great Jones Street, 1879. Wood's Library of Standard Medical Authors.

THE English edition of Frerichs on the liver, consisting of two volumes, has been divided into three volumes, which will appear in the series constituting Wood's Library of Standard Medical Authors. The present volume is the first, and contains the historical account of diseases of the liver, the definition of the dimensions and weight of the organ, physical diagnosis, the chapters on icterus, acholia, acute and chronic atrophy, and the fatty liver. The established reputation of the original work places the present volume, and those which are to follow, beyond special criticism. The age of the book entitles it to reverential consideration at least, and for that reason it may have lost some of its pristine excellence as a standard authority upon the diseases of the liver. The date of the author's preface is 1858, and that of the translator's preface is 1860. Doubtless very much has been learned concerning diseases of the liver since those dates, and the query might arise whether either a later edition or some more recent work could not have been turned into this channel with a larger acceptance by the profession and a greater profit to the publishers. However, it is a good book, and in its present form will be a most valuable addition to the library of the general practitioner.

Vol. II. contains chapters on the pigment liver; hyperæmia of the liver and its consequences; inflammation of the liver, its various forms and consequences; the waxy, lardaceous, or amyloid degeneration of the liver; and hypertrophy of the liver. To these is added an appendix, and the whole embraces 228 pages. It has a frontispiece on which are illustrated a syphilitic fibroid nodule, alveolar cancer, cavernous tumor, and hepatic cells in a state of waxy degeneration.

Vol. III. contains chapters on pathological new-formations in the liver—hepatic tumors; diseases of the blood-vessels of the liver; and diseases of the biliary passages. To these is added an appendix, and the whole embraces 239 pages.

To this volume is also added a general index for the three volumes. It also has a frontispiece on which are illustrated crystals of bile-pigment crystalline forms of carbonate of lime from the mucous membrane of the gall-bladder, and gall-stones of a variety of shapes.

MODERN SURGICAL THERAPEUTICS: a Compendium of Current Formulæ, Approved Dressings, and Specific Methods for the Treatment of Surgical Diseases and Injuries. By GEORGE H. NAPHEYS, A.M., M.D. Sixth edition. Philadelphia: D. G. Brinton, 1879. 8vo, pp. 605.

WE are not surprised at the popularity of this work, as it was guaranteed from the start by the plan which was adopted and by the thoroughly practical information which it contained. Between thirty and forty pages have been added to the work, and no pains seem to have been spared to bring it up to date. We are informed in the preface that the present edition "is called the sixth so as to make it synchronous with the sixth edition of Naphey's Therapeutics, as it is the development of the surgical part of that work; as a separate volume it is in its second edition." The work is of great value as one of ready reference for the general practitioner.

LECTURES ON PRACTICAL SURGERY. By H. H. TOLAND, M.D., Professor of Principles and Practice of Surgery, Medical Department of University of California. Second edition. Philadelphia: Lindsay & Blakiston, 1879. 8vo, pp. 518.

THIS book comprises a course of lectures delivered at the medical school, in which the author is Professor of Surgery. As such it is quite complete, embodying the author's views upon many of the departments of surgery, and will no doubt be valuable to the pupils of the university for whom it is more particularly intended. There have been but few changes from the first edition, except the addition of an extra lecture, and an account of two more cases of aneurism.

THE TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION, Vol. XXIX. Philadelphia, 1878. 8vo, pp. 1,145.

THE present volume, which is an unusually ponderous one, represents the doings of the Association at its meeting in Buffalo last year. It contains thirty-nine original papers on various subjects connected with the different departments of medicine and surgery, added to which is the prize essay of Dr. John A. Wyeth, which adds a special value to the volume. The different papers are of great interest, there being scarcely two or three that would not repay careful study; but Dr. Wyeth's Essay is an interesting work in itself, and comprises an exhaustive history of the surgical anatomy of the common, external, internal, innominate, and subclavian arteries. In this essay there is an analysis of 173 dissections of the surgical regions of the neck, and a collection of 1,198 cases in which the results of deligation of these vessels are given. To the practical surgeon this essay is an invaluable contribution, and we are pleased to see that, being published in separate form, it is saved from being virtually lost to all but members of the association.

ESSAYS ON SURGICAL ANATOMY AND SURGERY, etc., etc. By JOHN A. WYETH, M.D. New York: William Wood & Co., 1879. 8vo, pp. 261.

WHILE we say that the volume is on the whole an interesting one it is the more to be regretted that its field of usefulness is so small, and that by a resolution of the Association papers read before the said body cannot be given to the medical world through the medical journals. The manual is as usual well printed, and is bound in the style uniform with previous editions. The present one is well worth the standard price of $5.

A TREATISE ON THERAPEUTICS, comprising Materia Medica and Toxicology, with Especial Reference to the Application of the Physiological Action of Drugs to Clinical Medicine. By H. C. WOOD, JR., M.D., Prof. Materia Medica and Therapeutics, etc., University of Pennsylvania. Third edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co., 1879. 8vo, pp. 719.

IT is unnecessary to say to any student of materia medica that the work of Prof. Wood is a standard, and that, as an exposition of the physiological action of drugs and its application to clinical medicine, it is unsurpassed. The present edition is brought up to the present state of our knowledge by numerous alterations and elaborations of the text, and by the addition of new articles, as for instance, those on salicin, borax, thymol, etc. The articles on jaborandi and salicylic acid have been virtually rewritten. These necessary additions have increased the size of the work by fifty pages. The success of the work is well merited and reflects credit upon its studious and accomplished author.

HEALTH, AND HOW TO PROMOTE IT. By RICHARD M. SHERRY, M.D. New York: D. Appleton & Co., 1879. Pp. 185.

A GREAT deal of popular hygienic literature is being supplied us just now. The fact indicates that the public is arousing to the importance of taking care of itself, and even though this popular interest in Health Primers, Health Guides, etc., be a somewhat spasmodic one, it cannot fail to leave a permanent impress in improved habits. We can welcome the present book, therefore, as a useful contribution to the subject. It has no remarkable features, either good or bad, but the author is a candid and reliable compiler of hygienic details which will, no doubt, be of value and interest to the laity, although he presents nothing new to the physician.

PRACTICAL INSTRUCTION IN ANIMAL MAGNETISM. By J. P. F. DELEUZE. Translated by T. C. Hartshorn. Revised edition. New York: Samuel R. Wells & Co., 1879.

THIS book is addressed to the general public, and may therefore be excused for its entire lack of scientific value. As far as its matter is concerned we find it to be quite beyond criticism—in the same sense that Mother Goose is. It has stories of second sight, previsions and post-visions, mysterious fluids, complicated passes, and miraculous cures, which are full of interest and stimulus to unbalanced imaginations, but of no particular value to persons who desire well-demonstrated truths. We do not doubt, of course, the main facts concerning the peculiar nervous conditions referred to here as mesmeric and somnambulic states. But the book is an illustration of how valueless the most interesting phenomena become when interpreted and distorted by the light of puerile theories.

NAVAL HYGIENE. Human Health and the Means of Preventing Disease, with Illustrative Incidents, Principally derived from Naval Experience. By JOSEPH WILSON, M.D., U.S.N. Second Edition. Philadelphia: Lindsay & Blakiston, 1879. Pp. 274.

THIS is a book which treats its subject practically and pleasantly, without being either very exhaustive or very scientific. It is, indeed, intended for naval men generally, and not for the surgeons alone. One of the more interesting among the not very abundant original notes concerns the use of farinaceous drinks. The firemen employed about the furnaces are sometimes greatly exhausted by heat, the profuse perspiration making a large quantity of water necessary to supply the waste. Cold water on an empty stomach in these circumstances might produce sudden death. By mixing three or four ounces of oatmeal, however, to the gallon of water, the danger is obviated, and the drink seems to fill the blood-vessels without increasing the cutaneous exhalation. Other illustrations of the value of such farinaceous drinks are given.

EIGHTY-NINTH ANNUAL REPORT OF THE NEW YORK DISPENSARY, January, 1879.

THIS is the oldest and one of the best conducted dispensaries in the city, and its report, which is made up with more care than such documents usually receive, shows that its work is very extensive. The resident population of the dispensary district is 180,000, of whom 38,051, or one in five, have been treated during the past year. In 1877, there were 43,623 cases relieved, showing a decrease of over five thousand in

1878. This decrease is accounted for by the fact that during the year the practice of charging a small sum for prescriptions and medicine has been introduced. This plan we believe to be a ridiculously inadequate attempt at dispensary reforms, but it seems to be thought a success by the dispensary officers, and the five thousand decrease of patients mentioned is supposed to represent, to some extent, the number of undeserving cases that would have been treated.

LECTURES ON ELECTRICITY IN ITS RELATIONS TO MEDICINE AND SURGERY. By A. D. ROCKWELL, A.M., M.D. New York: Wm. Wood & Co., 1879.

THIS little octavo book, of some 100 pages, is one that may be read with much satisfaction by the general practitioner. It is short, concise, and explains the practical points that one needs in electro-medicine without wasting time with theoretical considerations or going deeply into the hazy regions of electro-physics. An abundance of cuts illustrate the more common instruments that are in use. At the close of the book there are a series of pithy paragraphs, giving in plain language the practical applications of the different currents to various affections, as shown by the personal experience of the writer, and those of other competent specialists. The book will certainly serve as a useful guide for the physician or surgeon who is anxious to get a brief survey of the field of electricity from a medical standpoint, or is desirous of carrying out electrical treatment in any of the various instances in which this valuable therapeutic agent is indicated.

FASTING GIRLS: THEIR PHYSIOLOGY AND PATHOLOGY. By W. A. HAMMOND, M.D. New York: G. P. Putnam's Sons. 1879. P. 76.

THIS is a very interesting and readable little work, in Dr. Hammond's usual graceful style. The book is evidently written with especial reference to the somewhat celebrated Mollie Fancher case, of Brooklyn, which exercised the popular mind so strongly during the latter part of last year. In addition to two chapters upon the aforesaid Brooklyn case and upon the physiology of inanition, the remainder of the book is devoted to a consideration of some of the more remarkable cases of prolonged fasting which have been referred to by ancient and modern writers, including that of Sarah Jacob, the Welsh fasting girl, and Louise Lateau, the Belgian stigmatisee. While not going exhaustively into the subject, Dr. Hammond presents a very strong case, and fully accomplishes the object expressed in the preface, of doing something "towards the removal of a lamentable degree of popular ignorance." The book will be read with satisfaction by medical men as well as laymen.

AN ATLAS OF HUMAN ANATOMY, Illustrating most of the Ordinary Dissections, and many not usually Practised by the Student; accompanied by An Explanatory Text. By RICKMAN JOHN GODLEE, M.S., F.R.C.S., of University College. Philadelphia: Lindsay & Blakiston. 1878. Part I.

THIS work is in large folio, and contains four colored plates with two figures on each plate. They illustrate the anatomy of the neck, and both drawing and coloring are extremely well done. The object of this Atlas, as stated by the author, is to supply a full illustration of the anatomy of the human body in a convenient form; to present dissections not ordinarily undertaken, as well as to give a better idea of the relations of parts; and to make the dissections follow each other in such a way that the student may work out more easily the steps by which particular organs and regions are to be exposed.

The work is very finely executed, and is one that will be of great help in dissection and in accompanying anatomical studies.

PROCEEDINGS OF THE EIGHTY-NINTH ANNUAL SESSION OF THE MEDICAL SOCIETY OF DELAWARE. At Lewes, Del., June, 1878.

THIS pamphlet contains the able opening address of the President, Dr. William T. Collins, and an extremely curious case of pelvic cellulitis, reported by Dr. W. T. Skinner. Mrs. T., aged 65, was attacked, without known cause, with pelvic cellulitis. It resulted in suppuration and the establishment of an undoubted *utero-intestinal fistula*, pus and fæces being freely discharged through the os and vagina. The fistula was connected with the small intestine. The patient slowly recovered. This is, we believe, the fifth case of the kind ever reported. Dr. H. Burton was elected President, and Dr. Geo. Troup Maxwell, Secretary, for the ensuing year.

TRANSACTIONS OF THE AMERICAN DERMATOLOGICAL ASSOCIATION. Second Meeting, at Saratoga, August, 1878. Reported by the Secretary, Dr. R. W. Taylor, New York: D. Appleton & Co. 1879.

THE papers read at this meeting are noticeable for their treating especially of the rarer skin affections, and the general practitioner is likely to be somewhat dismayed at the long contributions and exhaustive discussions upon Xeroderma, Ulceration, Scrofuloderm, Inflammatory Fungoid Neoplasm, The Trichophyton Tonsurans, etc. They indicate enthusiastic and careful study in this department of medical science. The more practical articles upon the Use of Linseed Oil in Skin Affections, and The Treatment of Hirsuties have appeared more or less fully in the RECORD. A classification of skin diseases was adopted by the Association. Statistics concerning the prevalence of leprosy in America are given. These show its presence, to some extent, in the Gulf States, in Minnesota, and amongst the Chinese in California.

THE DISEASES OF LIVE STOCK AND THEIR MOST EFFICIENT REMEDIES; INCLUDING HORSES, CATTLE, SHEEP, AND SWINE. By LLOYD V. TELLOR, M.D. Philadelphia: Dr. G. Brinton, 115 South Seventh Street. 1879.

THIS work is a compilation, by a practising physician, not a veterinary surgeon, of an immense amount of valuable information taken from the works of such veterinary authorities as Professor William Williams, Finlay Dun, John Gamgee, George Armitage in Great Britain, and Law, Townshend, Chawner, etc., in our own country. It is not strictly for professional men; indeed, it is hardly comprehensive enough for a veterinarian, as it contains no reference to pathology. For farmers, country gentlemen, and dealers, it would seem to be a plain, practical book. It is evidently written by an accomplished physician, who merely exposes what is really known, and omits all that is doubtful or theoretical. The therapeutical portions are clear, precise, and simple. For physicians in country practice, who are at all times likely to be called on to become veterinarians, it will furnish an excellent resource in cases of emergency. It is well classified, and has a good index.

COD-LIVER OIL EMULSION.—℞. Calcis et sodæ hypophosphit., ʒ ij; Ext. malti, f ʒ ij; Ol. morrhuæ, f ʒ iv; Aquæ, f ʒ ij; Ol. amygd. amar., ♏. iv. M. Sig.—Tablespoonful an average dose.—Dr. M. L. JAMES in *Trans. Med. Soc. Va.*, 1878.

Reports of Societies.

OHIO STATE MEDICAL SOCIETY.

THIRTY-FOURTH ANNUAL MEETING, HELD AT DAYTON, O., JUNE 3, 4, and 5, 1879.

(Special Report for THE MEDICAL RECORD.)

THE Thirty-fourth Annual Meeting of the Ohio State Medical Society took place at Dayton, O., June 3d, 4th, and 5th. The meeting was a large and enthusiastic one.

Papers were presented as follows:

ADDRESS OF WELCOME, by Dr. J. M. Weaver, of National Soldiers' Home.

The Treatment of the Various Forms of Consumption. By Dr. Roberts Bartholow, of Cincinnati.

The Preservation of Good Eyesight and the Use of Spectacles. By Dr. J. H. Buckner, of Cincinnati.

Hog Cholera. By D. N. Kinsman, Columbus.

Report on Progress of Surgery. By Dr. S. F. Forbes, of Toledo.

Mixed Anæsthesia. By Dr. J. C. Reeve, of Dayton.

Report on Progress of Gynecology. By Dr. Thad. A. Reamy, of Cincinnati.

National Sanitary Science. By Dr. G. E. Walton, of Cincinnati.

Glaucoma. By Dr. S. C. Ayres, of Cincinnati.

Plaster-of-Paris Roller in Treatment of Club-foot. By Dr. P. S. Conner, of Cincinnati.

Tubercle. By Dr. H. J. Herrick, of Cleveland.

Medical Mispronunciation. By Dr. A. C. McLaughlin, of Tremont City.

PRESIDENT'S ADDRESS. By Dr. B. B. Leonard, of West Liberty.

CONSOLIDATION OF MEDICAL COLLEGES.

The Committee appointed last year on the Consolidation of Medical Colleges, where two or more exist in one city, reported that they had had a meeting, but that no union was feasible, and asked to be discharged.

DUTY ON QUININE.

A motion that Congress be requested to abolish the duty on quinine was carried unanimously.

Fifty-four new members were added.

THE METRIC SYSTEM.

A large number of tracts from the Boston Metric Bureau were received and distributed. Near the close of the Session, and at a time when the attendance was unusually full, a motion was made to adopt the metric system, in papers presented, transactions, etc. After a speech by Dr. J. F. Baldwin, of Columbus, made neither for nor against the system, but simply that the members might vote intelligently on the subject, followed by remarks by Drs. E. H. Hyatt, of Delaware, and H. J. Herrick, of Cleveland, the resolution to adopt was unanimously voted down; *unanimously*, not because no body voted for it, but because every body voted *against* it. Dr. Baldwin was also, by vote, requested to embody his remarks in a paper to be published in the Transactions, and also to be sent for publication to the medical journals.

OFFICERS ELECTED FOR THE ENSUING YEAR:

For President—J. A. Murphy, M.D., of Cincinnati.

For Vice-Presidents—John Davis, M.D., of Dayton; Thos. G. McEbright, M.D., of Akron; J. D. Edwards, M.D., of Xenia; C. A. Kirkley, M.D., of Toledo.

For Treasurer and Librarian—T. W. Jones, M.D., of Columbus.

For Secretary—J. F. Baldwin, M.D., of Columbus.

For Assistant Secretary—Jesse Snodgrass, M.D., of Kenton.

The next Annual Meeting will be held at Cleveland, commencing June 15, 1880.

ARKANSAS STATE MEDICAL SOCIETY.

YELLOW FEVER AND QUARANTINE.

REPORT BY DR. R. G. JENNINGS.

Special Report for the MEDICAL RECORD.

AT the annual meeting of the Arkansas State Medical Society, held in Little Rock, May 14 and 15, 1879, Dr. R. G. Jennings made a report, of which the following is an abstract of his statements with reference to yellow fever and quarantine.

When it was reported that yellow fever was spreading rapidly at New Orleans, the Little Rock city council appointed (August 3d) a board of health. That board met and organized August 6th, and at once declared a quarantine against New Orleans. August 13th, reports from Memphis announced one case of yellow fever, and the next day two deaths and nine new cases. Quarantine was declared that day, August 14th, against the city of Memphis and all other infected places in the Mississippi Valley. The freight and passenger trains on the Memphis and Little Rock Railroad were stopped running altogether.

Arkansas not having established a State board of health, all expectations of beneficial results from a quarantine centred in the city of Little Rock; and to the action of its board of health the attention of the whole people of the State was directed. After the quarantine at Little Rock was in full force and effect, a large number of incorporated towns along the public highway of travel followed her example, and established independent local quarantines, adopting such sanitary measures as were deemed essential, and imposing such restrictions as were considered expedient. Notwithstanding all those precautions taken, and a rigid enforcement of such regulation, undoubtedly cases of yellow fever or some other disease of a very close kinship did enter the State. At Augusta, Woodruff County, some half dozen or more suspicious cases occurred, that proved fatal. Those cases were supposed to be yellow fever. Fortunately the disease neither became general nor spread into the country, and entirely disappeared with the first frost. Quite a number of cases of yellow fever occurred at Hopefield, opposite Memphis. The disease first appeared among refugees from that city, and soon attacked a majority of the people of Hopefield. It only ceased for want of material, though it continued until the appearance of frost. A young lady went from Memphis to Helena, had the yellow fever, and died with it there. One case afterwards was reported as having recovered from it. Then all reports of the disease from that place ceased for some weeks, when either the revival of the fever occurred, or other disease equally as fatal sprang into existence, and threatened the city. When the reports of new cases had reached the large number of sixty in one day, frost occurred, and there were no more published reports from Helena. There seemed

to have been a diversity of opinion among the Helena physicians as to the true character of the latter outbreak; but its reported rapid extension and great fatality lead to only one solution of the problem, which could be best stated by asking: If it was not yellow fever, what was it? One case of yellow fever occurred at Washington, Hempstead County, in the person of Rev. Richard Samuels (colored), who died on the eleventh day of the attack from relapse. That case created considerable alarm among the people. The Washington Board of Health, however, acted promptly, established a *shotgun* quarantine around his house, which fortunately was isolated, something over a mile from the town, preventing all ingress and egress except upon necessity, and after his death destroyed everything liable to become infected, and thus prevented any spreading of the disease. The case of Samuels presented something of a connective history, and he could not refrain from giving it, for a twofold purpose, viz., that it was connected with another case, to be reported, and it illustrated the manner in which infection might be transported for long distances, both of which would be found of much interest. Four colored ministers—three from the southern portion of the State, and one from Little Rock—passed through Memphis, August 3d, to attend a religious convention at Jackson, Tennessee. They remained at the latter place some ten days or two weeks, where they obtained health certificates. When they arrived at Humboldt, they had to wait the greater portion of the night for a train. Seeing a box freight-car open, half full of rice in sacks, direct from New Orleans, they concluded to enter the car and sleep awhile. Two of them lay down upon the rice-sacks, and the other two upon the floor of the car. All four returned to Little Rock, where they remained one day, when three of them continued their journey to their homes in the southern portion of the State. Samuels, one of the two who had slept upon the rice-sacks, had but reached home before he was taken down with yellow fever and died, as previously reported. The Rev. Jas. Reed (colored), one of the four ministers, and one of the two who slept upon the rice-sacks, returned to Little Rock, his home, with the others. As soon as it became known Samuels had the fever, Dr. Jennings sent the chief of police after Reed, knowing he was with him. Reed could not be found, and the chief of police reported that his house was closed. Thus the matter rested. Some weeks after this, Reed's wife returned to the city, but not until all danger of the communication of the disease was over, and reported that Reed, believing he would have the yellow fever, and knowing the excitement in the city among the people about it, took his little family and removed beyond the Fourche Mountain, a distance of over three miles from the city, into an isolated cabin, where he had the fever, and died with it. It was a little singular that only the two who slept upon the rice-sacks had the fever, more particularly so as they all had considerable discussion upon the subject prior to lying down—the two who slept upon the floor of the car contending that it would be dangerous to sleep upon the sacks, and the two who slept upon them taking the opposite ground, believing there was no danger. Those facts were given by Samuels prior to his death, and corroborated by the two men living. Thus Little Rock, after all the rigid enforcement of her quarantine, came very near having a case of yellow fever; but the circumstance of Reed's death was known by only a few persons, and had never been made public until the present. Fortunately the disease was never communicated to any other person.

NATIONAL BOARD OF HEALTH.

Adjourned Meeting, held at Atlanta, Ga., May 5, 1879.

JAMES L. CABELL, M.D., LL.D., OF VIRGINIA, PRESIDENT, IN THE CHAIR.

MARITIME QUARANTINE—QUARANTINE REGULATIONS FOR SAILING-VESSELS.

DR. JOHN S. BILLINGS, U.S.A., Washington, D. C., reported that the order of business for the day was the exclusive discussion of the question of maritime quarantine under the following heads:

1. The sanitary history of a vessel in a foreign port; embracing the means of securing the best possible sanitary condition of the cargo, passengers, and ship destined for the United States.

2. The sanitary regulation of vessels during the passage.

3. The methods and regulations for preliminary inspection and quarantine upon the arrival of the vessel.

4. The treatment of the passengers and care of the men upon the ship.

5. The treatment of the cargo and ballast.

6. The treatment of the ship after disposition of the passengers, and the regulations necessary to secure its thorough sanitary condition.

The President called upon Dr. S. O. Vander Poel, Health Officer of the Port of New York, to open the discussion.

DR. VANDER POEL remarked that formerly he thought it impossible to establish in this country a system of national quarantine, so varied were the interests and the climate of the various localities exposed to invasion from foreign ports. He had, however, reached the conclusion that a national system of quarantine could be established upon one principle, namely, that it should confine itself to the sanitary regulation of the different ports, and leave the ports to perfect its own police regulations.

The term quarantine he regarded as an unfortunate one, because there was associated with it the idea of detention. *Detention* really had nothing whatever to do with thorough quarantine, and the idea should be entirely removed. To prepare the way to the discussion of the several topics submitted, he offered the following general propositions:

1. That quarantine did not recognize detention as a necessary factor, except so far as it pertained either to the invasive processes of disease or to the time requisite to secure the proper sanitary condition of passengers, cargo, and vessel.

2. The manner of transmission of disease and the incubative period must be made the basis of action.

SAILING-VESSELS.

No objections or comments being offered to the general propositions,

DR. VANDER POEL remarked upon the *first* question, namely, measures necessary to secure the best possible sanitary condition of a vessel while in a foreign port, that the following were requisite:

1. Daily pumping out the bilge-water until it came out clean.

2. Careful regulation of the diet of the crew, and seeing that they returned to the vessel at a specified time.

3. Daily bathing and change of clothing.

4. Daily movement from the bowels.

While the vessel was in transit, all those precautions should be taken as fully as possible. Absolute clean-

liness of the ship was the great essential, but especially of the bilge.

The President then called upon representatives from the different ports along the Atlantic coast, and responses were made by Dr. Cleeman, of Philadelphia; Dr. Howard, of Baltimore; Dr. Nash, of Norfolk; and Mayor Cobb, of Pensacola. Those gentlemen endorsed the propositions in the main, both general and special, given by Dr. Vander Poel.

Dr. Howard thought it extremely questionable that the germs of yellow fever always sought the bilge, as suggested by Dr. Vander Poel, and believed that they were more likely to be found in the dirty clothing and quarters of the sailors.

The next topic—*The methods and regulations for preliminary inspection and quarantine upon the arrival of the vessel*—being open for discussion, Dr. Vander Poel remarked that he detained the vessel not less than forty-eight hours, because a certain length of time was required to secure thorough cleanliness, and use some simple disinfectant. He usually employed chlorine, as it was more simple and equally effective as sulphur. After that the hatches were opened, and fumigation made in every tenable part of the vessel. The vessel was fumigated twice daily during the entire time it remained at Quarantine. When that was done, the vessel was discharged; and it was discharged at the earliest possible moment, for the simple reason that, after it was fumigated, the longer the cargo remained the more violent would be the disease. The cargo should be discharged as soon as possible, fumigation practised at the close of each day's work, and usually at the end of two days the ship was entirely lightered. The lighters were not allowed to return to the city during the quarantine season. If, in exceptional instances, return became necessary, the men must remain without exposure until the period of incubation—five days—had passed. Any man who worked in the hold of the vessel during the discharge of the cargo must remain five days after the vessel was emptied, and the process of cleansing begun; and for purposes of cleansing, a scrub-broom and plenty of water was better than fumigation.

Dr. Cleeman, of Philadelphia, remarked that he should be afraid to endorse the system of allowing goods to be removed so early from an infected vessel.

Dr. Howard, of Baltimore, stated vessels were only rarely lightered at that port. Every vessel liable to be infected with yellow fever was ordered to cast anchor and remain; and when it was thoroughly fumigated and cleansed, and the clothing of the sailors was thoroughly cleansed, it was allowed to proceed directly to the docks. He regarded absolute cleanliness as more valuable than either fumigation or disinfection, so-called, although sulphur and chlorine were sometimes used. Nothing was done with the vessel after the cargo was removed.

Dr. Vander Poel remarked that lighterage did not delay the vessel; and he thought that, in New York, it would not be safe to allow the suspected vessel to go to the docks without having first discharged her cargo and been made absolutely and thoroughly clean. No case of yellow fever had been traced to the cargo in the port of New York, and no lighter had become sick by reason of special exposure during his work.

Dr. Howard agreed that lightering would be safer, but the increase in expense would be considerable. Again, if the germs were not in the cargo, why lighter? There was no advantage in it, unless it was to get at certain parts of the vessel in which he thought the germs would not be found.

AFTERNOON SESSION.

QUARANTINE REGULATIONS FOR STEAMERS.

Dr. Vander Poel stated that steamers were less liable to become infected by yellow fever, etc., than sailing-vessels:

First. Because they were rarely in an infected port more than one or two days; they expedited all their operations, and pursued their course to a very large extent according to fixed and recognized regulations.

Second. There was much better discipline upon steamers than upon sailing-vessels. There were several recognized departments, each of which had its distinct head, and the consequence was a much better sanitary control of the whole ship than could obtain in sailing-vessels.

Third. Steamers had better appliances for maintaining proper ventilation.

Fourth. Steamers had the facilities for pumping out the bilge without difficulty. At the port of New York, steamers from Havana or other infected port were compelled to remain at Quarantine a little more than five days from the time of leaving Havana—the usual period of incubation for yellow fever. Then, if the passengers were all well, and there had been no sickness on board during the trip, they were carried to the city. Immediately after the discharge of the passengers the vessel was taken to Quarantine, the cargo discharged, and then treated the same as a sailing-vessel.

THE TREATMENT OF THE PASSENGERS AND CARE OF THE MEN UPON THE SHIP.

Upon the above topic Dr. Vander Poel remarked that all the clothing upon a sick man, before arrival, was taken from him and destroyed, and new clothing given him. He was then carried to the hospital, where his clothing was again changed, so that no clothing which came from the infected vessel ever entered the ward. The sick were supplied with what was called transfer clothing, which, on arrival at the hospital, was thrown into a disinfecting solution. The point in that minute care was to secure absolute immunity among the attendants and persons upon the island at Lower Quarantine from the yellow fever. The complete escape thus far, Dr. Vander Poel ascribed to the care taken to prevent the admission to the wards of the hospital of any clothing taken from the infected vessel.

Dr. Howard, of Baltimore, agreed with Dr. Vander Poel with reference to the comparative liability of steamers and sailing-vessels becoming infected with yellow fever, and carrying it from one port to another. With reference to the sick on board, he took them ashore without changing the clothing, placed them in wooden barracks, and allowed them to wear the same clothing, which was at once destroyed as soon as either death or recovery took place. They had not had a case of yellow fever originating in the hospital. Post-mortems had been made in nearly all the fatal cases, and no physician had taken the disease; and he attributed the exemption of the attendants and the physicians to the fact that all clothing, bed and bedding, and other porous articles used about the patient, were immediately destroyed as soon as either death or recovery occurred.

Dr. Vander Poel remarked that if the effluvium of the disease was transmitted by clothing, it was a proper precaution to take special care of the clothing before the patient was allowed to enter the wards of the hospital.

Dr. Folsom, of the port of Boston, remarked that

their procedure was very nearly the same as that in operation at the port of New York. In certain cases vessels coming from a port at which yellow fever was prevailing were not allowed to reach the city during the hot weather, but were detained at Quarantine until the cold season arrived, unless special precautions were instituted by the owners of the vessel and the cargo.

Dr. Nash, of Norfolk, remarked that his experience was very much like that related by Dr. Vander Poel with regard to steamers and sailing vessels.

Dr. Cleeman, of Philadelphia, remarked that he had nothing to add to what had already been stated with reference to sailing-vessels and steamers. The sick with yellow fever were removed to the hospital generally, and the clothing was usually destroyed, sometimes only disinfected. He gave a brief account of cases which originated in Philadelphia from handling cargoes.

Mayor Cobb referred to the spread of yellow fever from dismantling a ship in the port of Pensacola.

Dr. White, of New Orleans, was inclined to agree with Dr. Vander Poel with reference to steamers and sailing-vessels. He regarded the suggestions with regard to the care of the clothing and the bedding, as very proper. He also concurred in the ideas advanced with reference to the treatment of the vessels and the men while in foreign ports and in transit.

Dr. Dowell, of Galveston, Texas, remarked that the vessels which had sickness on board on arriving at that port were retained, but they had no means for unloading ships or disinfecting cargoes.

The discussion then gave way to the reading of a paper by Dr. Chancellor, of Baltimore, Md.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Meeting, April 21, 1879.

Dr. A. E. M. Purdy, Vice-President, in the Chair.

THE RESPONSIBILITY OF THE MEDICAL PROFESSION FOR THE ABUSES OF MEDICAL CHARITIES.

The special order for the evening being the above subject, Dr. F. R. Sturgis gave a brief *resumé* of the discussion upon the same question at an adjourned meeting, held April 14, 1879. The discussion was continued by Dr. D. B. St. John Roosa, who considered two points in the paper presented by Dr. Sturgis. 1. The author of the paper had expressed the opinion that the medical profession was to blame for the present abuse of medical charity, and that there were a great many in the city who could pay a moderate fee for medical services, but who were receiving such service at dispensaries and hospitals without fee or reward to the attending physician. Dr. Roosa thought it was admitted that the evil existed not only in our dispensaries, but also in our large hospitals. Indeed, it had become a feature of some of those hospitals, built with funds which were acquired from the public under the notion that they were charitable institutions, to put apart rooms, that were fitted up sufficiently well to satisfy the wealthiest people in the land, and into which they could admit patients who paid well for their board and medicine; whereas, the medical adviser, in many instances, received nothing whatever for his services. He regarded that kind of management as a fraud upon the dead men and women who gave money to found a charity. The hospital that provided for the well-to-do, without paying the medical adviser, was no longer a hospital in the sense in which that word was understood in this country; it was a boarding-house for the benefit of people who wished to shirk their doctor's bills; and if doctors connived at that kind of charity, they did themselves harm, and their brethren much more harm. The author of the paper was correct in his estimate of the place where the blame should rest; and if the abuse of medical charity was an evil for which the medical profession was to blame, who was to remedy it? Certainly the medical profession itself. Suppose the medical profession of the city of New York should say that, from that time henceforth, as a matter of duty, they would no longer treat a single individual, either in dispensary or hospital, without fee who was able to pay a fee, how long would it be before the abuse would be broken up? The remedy was in the hands of the profession, were we united; but if discordant, we might go on for the next fifty years aiding and abetting the system of treating, in supposed charitable institutions, people who were able to pay for medical services. 2. There was a necessity for unanimity of action. When, two or three years ago, the great eruption in the profession took place regarding the management of a certain hospital in the city of New York, it seemed that almost every member of the profession was upon one side, yet the careful observer could see that the names of certain prominent medical men—men of influence and deserved position—were not with the majority; and one of the astute lawyers, who was upon the Board of Direction of that institution, remarked at that time, "It is not so important as to whose names you have, as to whose you have not." But, as a matter of history, five or six eminent men in the profession, who were at variance with the large majority of their brethren, were able to thwart and practically defeat the effort which, in the opinion of the majority, would have put us twenty-five years further onward in our struggle with Boards of Direction. What did that teach with reference to the present agitation? It taught that we might go to the County Medical Society, secure the presence of gentlemen eminent in the profession, get a vote of 450 to 50 in favor of plans which the majority might advocate, and yet, unless the leaders in the medical profession were united, it would come to naught, and we should simply be where we started, with one *important exception.* The exception was that, although we might fail in the undertaking at the time, we were steadily creating a healthy public sentiment. If we were right in the matter, the agitation would bring about the day when the medical profession would refuse to be dictated to upon subjects which pertained to its own welfare, and upon subjects of which it was fully capable to judge, and we should reach the time when we could demand our common rights. We might not be able at once to eliminate the would-be paupers, who were clothed in purple and fine linen and fared sumptuously every day, but the time would come when only paupers would be treated in dispensaries, and only paupers would be lodged in hospitals.

Dr. Willard Parker gave a somewhat detailed account of what he had seen of hospitals, dispensaries, etc., since the year 1839, when he first came to the city of New York. At that time no trouble of the present kind existed, and the city contained about 312,000 inhabitants. There was one hospital, the New York Hospital; three dispensaries, the Old New York, the Northern, and the Eastern; one Eye Infirmary, and one Insane Asylum. Those institutions—some of them eleemosynary, and some otherwise in

character—seemed to meet the demand. At that time we had but few tenement-houses, and those were held by substantial men, who built them for the accommodation of a few families. In 1845, '46, and '47, came the marvellous immigration to this country from Ireland, and within the space of one decade, from 1840 to 1850, the population of the city increased between two and three hundred thousand. Our population had been steadily increasing from that time until our numbers were now so great that in some parts of the city there were only nine square feet for each person. When the immense immigration to New York took place, the good people of the city were moved by sympathy, and at once commenced to provide for the necessities of the immigrant, and that sympathy led to the establishment of various eleemosynary institutions to meet the demands which charity imposed upon the city. The first new hospital was built about the year 1850, and since that time we had gone on until it was perfectly marvellous how many hospitals, dispensaries, and charitable institutions at present existed among us. We had an immense population, and the charity had grown into almost, in many instances, a curse. There were many people who felt that when they had contributed their money their responsibility was at an end, but it should be recollected that we were only trustees of our money, should be careful that it was placed where it would do good, and not harm, and were responsible for the transaction. Doubtless, there was too much charity bestowed in the city.

There were three kinds of persons who employed a doctor: 1. Those who had means, so that they could pay a physician a small fee; that class was small in comparison to what it was forty years ago. 2. Those who were honestly poor, "God's poor," and for that class he had great respect. 3. Those who were sometimes called the "devil's poor," and of that class there was a large number. The question arose, what could we, as professional men and as *citizens*, do under the circumstances, surrounded as we were by charitable people, charitable institutions, and a large population which were here merely to be supported? Dr. Parker did not see how any relief could be obtained by legislation, nor did he see how either the State Medical Society or the County Medical Society could bring about the desired correction of abuses. The only way of escape which opened up before him was, that *we should help ourselves*. How was that to be done? After discussing at some length the relation existing between the doctor, the taxpayer, and the beneficiary, he remarked that he believed the first thing to be done was for the profession to take care of itself, and let every man stand upon his own foundation. He believed that every man should have his own dispensary. It must be an individual and collective taking care of ourselves. Let every man have his own dispensary, dispense his own medicines, and do his own work. If a committee from the Society could meet the Board of Directors of dispensaries, perhaps some plan might be reached by which these institutions could unitedly be induced to adopt the remuneration system, which met his hearty approval. The plan adopted at the New York Hospital might yet turn out to be a blessing to us, if we looked at it properly.

Dr. Henry remarked that there never was an evil in the world for which there was not a remedy. He was surprised that Dr. Parker advocated that every man should have his own dispensary and dispense his own medicines, for it was a violation of the constitution and by-laws of the Society. The remedy proposed by Dr. Henry was to cut off the supply of doctors by cutting off the supply given to the medical profession for the medical schools. Open the hospitals to competitive examination, and also the dispensaries, and when a vacancy occurred let the position be filled by competitive examination. If the supplies for the medical colleges could be cut off, it would enable the men who were in the profession to live.

Dr. Parker remarked that he did not wish to be understood as favoring the plan of several gentlemen uniting and establishing a dispensary, as suggested in the paper; but rather that every man should do his work in his own dispensary, which was virtually doing his work in his own office at certain hours.

Dr. Jacobi thought that if there was a less number of doctors perhaps we should not have so much reason to complain; that if greater care was taken in recommending applicants for positions as dispensary physicians, a better class of men could be obtained; and that there would be less abuse of the position for the purpose of establishing a private practice over the backs of the poor. The abuse which a large number of doctors connected with dispensaries and college clinics practised, for the purpose of obtaining patients who were able to pay, was well known; and perhaps it had not been spoken of at all. The very fact that there were a large number of men who wished to build up a private practice out of a dispensary practice, was a reason why so many would crowd into dispensaries as physicians who were not qualified to be there. What could be done to correct the abuse? Care on the part of those who were solicited to sign applications for positions as dispensary physicians, and a few plain questions, would rid the ranks of many unworthy applicants. In the German Dispensary, which was about twenty years old, it was a rule rigidly enforced, that every doctor should question every doubtful patient, and in that manner a large proportion of people had been crowded out; and the fact was, that out of a great many thousand applicants for medical advice there were but relatively few who did not deserve the charity. Again, in the college clinics, many applied who were able to pay fees; and he had made it a rule in his own clinic not to prescribe for any such person. One person sent off in that manner, in the hearing of those who had a right to be there, would frighten twenty who were not entitled to the benefit of charity, and they would either leave or not come. Much of the abuse could be corrected if the doctors in those places and institutions would be thoroughly in earnest in the matter.

Dr. Jacobi believed that the proposition to establish dispensaries under the control of any given number of doctors—not a free dispensary, but a paying one, as suggested by Dr. Sturgis—was more dangerous and demoralizing than anything which he had heard against dispensaries. The New York Hospital plan, which allowed any one to go there for *one* dollar a month, was not much worse. All had been opposed to the New York Hospital plan, because *one* dollar a month had been set down as the value of professional services. It was demoralizing to the public; and if there was anything nearly so bad as that plan, it was the plan suggested by Dr. Sturgis. Dr. Sturgis meant to work for *ten* cents a month. Such a plan would be adopted for the purpose of making money; and the dispensary proclaimed that, for five, ten, or fifteen cents, or whatever the amount might be, the best of medical service could be obtained. The public would say at once, "If medical service is worth only *ten* cents, I am not a pauper, and I will pay the doctor what he charges, and I have a

perfect right there." It was the *vast minority* to which Dr. Sturgis referred, that we wished to benefit; but we could not do so by placing any charge upon medical services in a charitable institution. He had frequently thought that it would be better to wipe out the dispensaries entirely, when he looked at the abuse of the charity sustained by both the medical profession and the public.

Dr. Beverley Robinson, for the purpose of correcting some "erroneous statements" which had been made regarding the medical service at the New York Hospital Dispensary, read the following, which could be seen in conspicuous places in that institution: "This branch of the service of the hospital is designed as an efficient means of extending medical and surgical treatment, mainly to the industrial classes. To prevent abuse of the service, physicians will not be expected to treat such patients as have the means to avail themselves of medical service outside."

Dr. Parsons referred to the general use made of the position as a dispensary physician to build up a private practice, and thought it unwise and unjust that the patronage should be distributed as it was. Only the strictly competent and deserving should be appointed to those places. Again, the provident dispensaries were the most improvident, for the reason that, no matter how small the fee might be, the moment a charge was made the physician's services were placed at the mercy of those who gave him patronage. The man who, under such circumstances, prescribed or performed operations, was injuring his professional brethren, because he assisted in cutting off even a moderately fair chance for others to gain experience.

RESOLUTION.

Dr. Roosa offered the following resolution:

"*Resolved*, That it is the sense of this meeting, that the attending physicians and surgeons of the various dispensaries and hospitals should diligently inquire with regard to the financial circumstances of all patients in those institutions, and should refuse to treat those whom they believe to be able to pay small fees."

Dr. Henry indorsed the resolution.

Dr. E. S. Bates sustained the resolution. He believed that it was one step in the right direction, and perhaps others would follow.

Dr. Messinger thought that, if the people were made to take care of themselves, there would be found but comparatively few in this city who were really paupers. He also believed no man should be appointed as dispensary or hospital physician or surgeon who had not proved himself to be the best man for the place. He favored the resolution.

Dr. Parker asked, "How shall the resolution be put into operation?"

Dr. Roosa replied, his idea was that the County Medical Society represented the sense of the profession, and that every loyal member of the profession would respect an expression of that sense. If, therefore, the County Medical Society passed unanimously such a resolution, he thought something would be done towards correcting what by all was acknowledged to be a great abuse and evil. If every dispensary, hospital, and college physician would inquire diligently with regard to every dispensary, hospital, and college patient, and *not* prescribe for those who were able to pay, much could be accomplished towards bringing about the desired reform.

Dr. Parker remarked, that his suggestion would be to appoint a committee from the Society to confer with the Boards of Trustees of dispensaries, with reference to the subject under consideration, and to report to the Society.

Dr. Roosa remarked that he had no objection to Dr. Parker's suggestion as a secondary topic; but let us first say, with an uncertain sound, that we had a right, in spite of all Boards of Trustees, to say that we would not, either in hospitals, or dispensaries, or colleges, or infirmaries, treat patients gratuitously who were able to pay for medical service.

Dr. Roosa's resolution was unanimously adopted, and the Society adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 23, 1879.

Dr. E. L. Keyes, President, in the Chair.

REPORT OF MICROSCOPICAL COMMITTEE.

Dr. W. M. Carpenter submitted the following report from the Microscopical Committee:

The result of the examination of the specimen presented by Dr. J. W. Howe, at the Stated Meeting, held April 9, 1879, is as follows:

FIBROMA UNDERGOING BONY AND CAVERNOUS CHANGE.

Cuts were made through the substance of the growth in various directions, the results showing that it was surrounded by and made up, to a large extent, of connective tissue, in which were numerous deposits of bone in the form of spiculæ, nodules, and irregular masses. In some portions there were large collections of blood in spaces, resembling those of erectile tissue.

Microscopic examination corroborated the naked-eye appearances. The blood was mostly contained in dilated vessels with extremely thin walls, often closely applied to one another. At some points there was a large collection of lymphoid elements, such as are often noticed in the vacuity of blood-vessels, especially when they have been distended with blood. In most places the fibrous tissue was of the fibrilated variety, and showed no indications of active change. There was no striped or unstriped muscular tissue, and no cartilage. The muscular tissue, which is sometimes found in such growths, had possibly been replaced by the fibrous elements during the slow growth of the tumor. Commencing originally as a fibrous deposit in the inter-muscular planes, it may have undergone a partial change into bone and cavernous tissue. Either of these phenomena has been observed before, but their joint occurrence seems to make the growth unique.

T. E. Satterthwaite.

As a supplement to the above report, the following is submitted: One of the constituents of all sarcomatous growths is blood-vessels. These are sometimes found so abundant as to give rise to a condition that has received the special name sarcoma teleangiectodes and, when present in large numbers, there is great liability to hemorrhages. In the specimen presented blood-vessels were very abundant.

Sarcomata occur between the muscles, on fasciæ, and have their starting-point in the periosteum; and osteoid sarcomata are quite uniformly connected with bones. They are occasionally multiple throughout their course, but generally are single. In the present specimen the growth was connected with the periosteum, but it was difficult to ascertain whether

or not it began as two distinct nodules. It was intimately connected with fascia, and contained unmistakable bone corpuscles.

There is a form of the disease which has been described as *diffuse sarcoma*, and which is seen especially among "the muscles in the female breast and in the testicles." In this form the new-growth takes place in the interstitial connective tissue and at the expense of the muscular fibres, and looks like an infiltration or hypertrophy.

In the specimen presented there was a rather diffuse growth, and in all the sections examined there was a notable absence of muscular fibres.

While the cells have the appearance of fibrous-tissue cells, there is room for the opinion that some of them at least are of a sarcomatous variety, and therefore favor the impression that the tumor is sarcomatous in nature and belongs to the class which contains more than the usual number of blood-vessels.

W. M. CARPENTER.

SCIRRHUS CARCINOMA.

The result of the examination of the tumor presented by Dr. A. C. Post, at the same Stated Meeting, is as follows: The growth is made up of an abundant stroma of connective tissue, in which is a network of channels of varying size and irregularly pouched. They contain epithelial elements closely packed together. The channels give precisely the appearance of dilated lymphatics, having the same peculiar pouching which is seen in them. The name scirrhus carcinoma is therefore applicable.

T. E. SATTERTHWAITE,
W. M. CARPENTER.

MULTIPLE EXOSTOSIS.

DR. V. P. GIBNEY presented a patient who illustrated multiple exostosis. The boy, æt. 16 years, was exhibited to the Society in 1875, and at that time the interest in his case centred on the existence of an exostosis about the left hip-joint, and giving rise to symptoms of disease of that articulation. During the last four years he had had only one week of pain, which was mild in character. At the present time the bony tumors were increasing in size. They existed symmetrically near the proximal ends of the humerus, the distal ends of the radii, and the heads of the tibiæ, and varied in size from that of a peanut to that of a walnut. There was one on the first phalanx of the index-finger and above the left trochanter major. The joints remained intact, and it was thought that at the age of the patient no great increase could take place.

CANCEROUS STRICTURE OF THE ŒSOPHAGUS.

DR. LOUIS ELSBERG presented a specimen of cancer of the œsophagus. Two months previously, the patient came under his observation, when there was a slight contraction of the tube at the level of the cricoid cartilage. Below that point was a stricture that only admitted a sound one-fourth of an inch in diameter. Death occurred from exhaustion, and at autopsy a cancerous mass was found attached to the vertebral column. An opening from the œsophagus to the trachea existed. The debility of the patient contraindicated the operation of gastrotomy.

MORBUS CRANIUS — EXCISION OF HIP-JOINT UNDER LISTER.

DR. JOSEPH W. HOWE presented specimens accompanied by the following histories: Joseph Lennis, æt. 19, occupation printer, was admitted to St. Francis' Hospital, March 31st. Three years ago the patient fell down a flight of stairs and struck on his right hip. There was a slight swelling and some pain over the part for a few days afterwards. It gave him very little inconvenience, and he continued at work as if nothing had happened. Twelve months subsequently he began to have some pain and stiffness in the joint, which made him limp. Those symptoms increased in severity to such an extent that he was finally compelled to take to his bed, where he remained under treatment for three months. He was then allowed to go about, and was able to walk without much pain. For a period of five months he suffered but little, but did not put the lame foot to the ground. An abscess formed, which opened on the outside of the joint and had continued to discharge ever since.

On examination, the limb on the affected side was found to be shortened to the extent of nearly two inches. The foot was inverted, and the limb adducted. Considerable pain existed whenever pressure was made around the joint or the limb moved in any direction. Two inches below the upper border of the great trochanter a sinus opened. A probe passed through this touched dead bone in the neighborhood of the joint. As the boy was losing flesh, it was decided to excise the joint. The operation was performed under Lister by an incision just through the walls of the sinus, and afterwards through the tissues two inches above and posterior to the great trochanter. The diseased head of the femur was removed as well as a small portion of the acetabulum. Twelve hours subsequently the temperature rose to 102¼°, pulse 125. Since then pulse and temperature gradually lowered, approximating more nearly to the normal standard. No bad symptoms of any kind had exhibited themselves up to the present time. Two weeks after the operation the temperature was normal and the pulse 104. The increase in the pulse he attributed to the use of stimulants. He attributed the absence of unfavorable symptoms to the antiseptic treatment.

STRANGULATED HERNIA.

Jacob Dackerman, æt. 45, was admitted to St. Francis' Hospital, April 10th, suffering from a strangulated femoral hernia. The hernia was nine years old, and caused no inconvenience until four days previous to admission. At that time the hernia became tense and painful, and there was some nausea, but no vomiting. On the fourth day he was admitted to the hospital. He complained of but little pain. Food given him was thrown up, but otherwise his stomach was not disturbed. The day following his admission Dr. H. saw him for the first time. He was then in a state of collapse, and rapidly sinking. Dr. H. opened the sac, and found a large quantity of omentum thickened and congested, and a small knuckle of intestine approaching gangrene. The stricture, which was a Gimbernat's ligament, was cut and the intestine returned. The omental portion of the tumor was cut off, and the stump returned to the abdomen. Death took place six hours after the operation.

The principal point of interest connected with the case was the absence of stercoraceous vomiting and the other characteristic signs of strangulation, which caused the physician in charge to underrate the gravity of the case.

FIBROID PHTHISIS — INTRA-PULMONARY RÂLES.

DR. BEVERLEY ROBINSON presented a specimen, of which he gave the following history and remarks:

"The lungs I desire to show you are such as one

finds frequently in the post-mortem room. They are specimens manifesting, in a very evident manner, the lesions of fibroid phthisis. You will remark, however, one or two facts. In the first place, both apices are riddled with cavities, and the walls of these cavities are particularly hard and dense, owing to the great amount of fibrous tissue present. Over the anterior surface of the left lung, in the region of the apex, the pleura is extremely thick. And so intimately adherent one to the other were the visceral and parietal layers of this region that, at the autopsy, they both had to be brought away with the left lung when it was removed from the chest. Now, just before death, this lung was examined by auscultation, and at the level, where the intimate pleural adhesions are seen, there was revealed a large number of fine moist râles. For me, therefore, here is an example which is unimpeachable, where the râles are intra-pulmonary, and not intra-pleural; and, moreover, as the intra-pulmonary condition appears to me of older date than that of the pleura, I believe the pleuritic adhesions followed the fibroid phthisis, and were not the cause of the latter. In view of late important and interesting discussions in regard to "a new classification of phthisis," and also in regard to peculiar views held by the author of that paper about intra-pleural râles, my specimens are not devoid of interest."

A CHIP OF BRASS IN THE CILIARY BODY.

Dr. Knapp presented an eyeball which he had removed a few days previously. Six years ago a piece of brass had entered the patient's eye through the cornea and lens. After the mild inflammatory symptoms which followed the injury had subsided, the eye gave no trouble for six years. Then suddenly it became so painful and inflamed that it was removed three days after the pain had set in.

The eyeball, opened by an equatorial section immediately afterward, showed the vitreous perfectly clear, though watery; in the posterior part of the retina, a gray scar, a patch of connective tissue of about 2‴ in diameter; the retina everywhere in its proper position. Embedded in the ciliary processes at the bottom of the eye lay a chip of bright metal, 3‴ in length; no connective tissue around it; no inflammatory exudation worth mentioning. From the history of the case, and the autopsy of the enucleated eye, Dr. Knapp thought that the foreign body must have lain encapsulated in the retina for six years, but recently worked itself loose, dropped through the vitreous upon the lowest part of the eyeball, the ciliary body, in front of the inferior rectus muscle, in which locality the foreign body had been found.

PLASTIC CYCLITIS.

Dr. Knapp presented another specimen—an eye with a dense white pseudo-membrane lining the inner surface of the ciliary body. The eye had been removed from a girl twelve years of age. It had been affected by chronic inflammation for a year; and, when Dr. Knapp saw her first, the symptoms of irido-cyclitis were so marked that the sightless eye, threatening the other by sympathy, had to be removed.

TUMOR OF PONS AND MEDULLA.

Dr. G. L. Peabody presented a specimen of tumor of the pons and the medulla, with a history as follows:

Mrs. A., æt. 54 years, was an active, well woman up to March, 1878. Then, after a fall, she often complained of weakness in her legs. In May, 1878, she had obscure symptoms from her head and limbs, of which nothing was definitely known. In October, 1878, she came under the treatment of a physician in Boston, who had kindly given a few notes of her case. She then complained of dull headache, mostly at base of brain, slight loss of motion in arms and legs, but no loss of sensation. At the end of October she suddenly fell to the floor without apparent cause. She was obliged to remain in bed four weeks at that time, owing to marked loss of power in her limbs. She was treated by ergot and potass. sod., and improved. The headaches continued as before, but were at times relieved by potass. bromid. At times these headaches were intense. By the middle of December she was greatly improved, being able to write letters, go up and down stairs, and attend generally to duties of life. All this time she still had slight difficulty in raising her feet.

On the 31st of December, 1878, she was brought to the New York Hospital, having made the journey from Boston on that day. She was found dead on reaching the hospital, and had probably been dead about two hours. She had walked that morning to her carriage on going to the railway station.

At the autopsy a tumor was found on the right side of the pons and medulla, and making a deep impression in the cerebellum. Roughly speaking, it was an oblate spheroid in shape, with a diameter of one inch and a half, and an axis of three quarters of an inch. The 5th, 6th, and 7th nerves of that side were compressed by it and considerably reduced in size. It was intimately adherent to the bone, the dura mater having been eroded by it and disappeared. The bone was also eroded by it. The tumor and brain tissue were nowhere intimately adherent. It was soft to the touch, and grayish-red in color, and nowhere gritty or sandy to the touch. On microscopical examination it was found to be a sarcoma, such as was not uncommon within the cranium. It contained many blood-vessels of large size, and was made up chiefly of spindle cells, with some round cells.

ANEURISM OF THE ARCH OF THE AORTA.

Dr. M. J. Messemer presented a specimen of aneurism of the arch of the aorta, accompanied by the following history:

John T. Morris, æt. 39 years, carpenter, came to him at the out-door department of the Mt. Sinai Hospital, on the 25th of March, 1879. When he entered, a peculiar wheezing sound accompanying his breathing was distinctly noticeable at some distance from the patient, which became more marked as he spoke. He stated that in October, 1878, he was eating an apple while walking along the street, and a seed of the apple entered his larynx. A short time thereafter he experienced shortness of breath. Dyspnœa was especially apparent when he reclined on his back, mounted the stairs, ran, or exerted himself; he had, however, experienced no pain in the chest at any time since then.

On examining him, with Drs. Sanders and Wardwell, the manubrium was found somewhat depressed, being about one-quarter of an inch lower than the body of the sternum. There was a pulsating elevation or tumor immediately to the right of the sternum, about the second intercostal space, several inches in circumference.

On percussion, dulness was revealed over this elevation or tumor. Pulsation could be felt with the hand and was quite apparent to the eye. Slight tympanitic sound was found with the vesicular resonance over the entire thorax. On auscultation a distinct pulsating sound was heard over the region of the tumor. No

valvular lesions existed. Expiration was somewhat prolonged and inspiration slightly shortened. In the interscapular region intensified heart-sounds were observed. On laryngoscoping the patient, he found the vocal cords intact and the larynx and pharynx normal.

On pressing the finger downward behind the top of the sternum, a strong pulsation was distinctly recognized.

Laryngoscopy revealed normal vocal cords. Diagnosis: Aneurism of the arch of the aorta. He administered ten grains of the iodide of potassium three times a day. March 28th: Patient reported greater facility in breathing, and, when speaking, wheeziness was not so apparent as before, but physical signs remained the same. Same treatment continued. April 1st: No change in symptoms. Treatment the same. April 4th: Noticing no further improvement, prescribed infus. of ipecac. ʒ ss. to ℥ viij. April 8th: Patient reported further improvement; administered infus. ipecac., with Fowler's solution, five drops, and iod. The patient returned on the 10th, stating that he felt better, and that his breathing was much relieved, but that he had expectorated small quantities of blood at intervals of every ten to fifteen minutes since the 8th. He expectorated in the doctor's presence several times, and each time blood of a bright red hue was apparent in small lumps, about the size of a bean, with the mucus. He administered morph. acetat. and infus. ipecac., but the patient expired on the following morning at 4 o'clock. His attendant stated that he had been awakened by a noise, as though something was being torn in his chest; immediately thereafter the patient vomited about four quarts of blood, stated that he felt his end approaching and immediately expired.

Autopsy (made Saturday afternoon, April 12th, at two o'clock, thirty-four hours after death, by Dr. Sanders and himself) revealed slight pleuritic adhesions of right pleura. Lungs congested and inflated in appearance. Alveoli dilated. No consolidation in any part of the lungs. Œsophagus intact, and in order. Mucous membrane of the bronchi presented a roughened appearance. The heart structure was normal. The arch of the aorta and upper portion of the descending (thoracic) aorta were distended. Some of the valves were destroyed in effecting a larger opening into the arch of the aorta, so that the aneurismal sac could be better inspected. A quantity of fibrin was detected in the aneurismal sac, and the rupture was found to have taken place into the right bronchial tube about an inch above the bifurcation. The opening caused by the rupture was well marked in the specimen presented. All other blood-vessels connected with the heart or aorta were normal.

The stomach was distended with blood.

The liver and spleen were normal in size, but slightly congested.

Both kidneys showed slight congestion, and there was an infarction in the cortical substance of the right kidney, in the centre of its outer border.

Very little blood was found in the thorax, which small amount might have escaped while the post-mortem was being made.

After rupture occurred, the blood escaped through the right bronchial tube, trachea, and larynx into the mouth, and was mostly ejected in that manner, some, however, running through pharynx and œsophagus into the stomach. The dyspnœa was due to the pressure of the aneurismal sac upon the bronchial tube.

FILARIA FROM THE EYE OF A HORSE.

Dr. H. D. Noyes showed a filaria which he had removed from the anterior chamber of the eye of a horse on the day previous. The parasite was first seen in January, and was visible three days. It then disappeared from view for six weeks, and since then, while often visible, it would not be discoverable for several days or hours.

The creature, as seen by Dr. Noyes, was running actively about the anterior chamber, and the horse did not evince any consciousness of suffering. There was decided opacity of the cornea and some ceriumcorneal hyperæmia. The removal was done to prevent increase of corneal opacity. The horse was supposed to be twelve years old. Those filariæ were common in the peritoneal cavity of the horse, and occasionally appeared in the eye.

At the operation, which was done with the help of Dr. Liautard, at the American Veterinary College, the horse was thrown and etherized, the cornea punctured with a lance-knife, and the wound held open as the point was partly withdrawn, so as to cause the aqueous humor to spurt in a gush. The parasite was thus driven out, and lived for an hour after its extraction. It measured two and a quarter inches, or fifty-eight millimetres, in length. Its neck was curved into a spiral, forming one and a half turns, and at the extremity of the head was a minute papilla, from which the name filaria papilli fornix was derived.

Dr. Noyes explained the disappearances of the filaria by supposing that he went through the pupil behind the iris, but did not penetrate into the deeper part of the eye. Since the specimen was presented, the horse had been heard from; the eye recovered from the operation, and the opacity of the cornea had begun to fade away.

Correspondence.

VISIT TO BERLIN.

THE EIGHTH ANNUAL MEETING OF THE CONGRESS OF GERMAN SURGEONS—MARTIN'S OPERATION OF EXTIRPATION OF THE KIDNEY—SCHROEDER'S OPERATION OF EXTIRPATION OF THE UTERUS.

By J. MARION SIMS, M.D.

The eighth annual meeting of the Congress of German Surgeons was held at Berlin from the 16th to the 20th April. The meeting, under the presidency of Langenbeck, was largely attended, and every moment of time was profitably occupied. Billroth, Esmarch, and most of the German surgeons whose names are familiar to us, were there, except Volkmann and Hégar. The first was in Italy, the other unavoidably detained at home. The morning meetings, from 9 to 1, were held in the amphitheatres of different hospitals, and were devoted to clinical demonstrations and discussions. The afternoon sessions, held at the University, were devoted to the reading and discussion of papers. I went to Berlin as much for sight-seeing as for the interest I felt in the surgeons and surgery of Germany. I shall not, therefore, write you anything like a synopsis of their doings, but will give you a few items that incidentally came under my observation.

EXTIRPATION OF THE KIDNEY.

You remember how we were all electrified, about ten years ago, with the news that the daring, dashing Simon had successfully extirpated the kidney. I do not know how often Simon's operation has been per-

formed; but at home I know that it was done successfully by the late Dr. Gilmore, of Mobile, and by our own George C. Peters. It has remained for Dr. Martin, of Berlin (son of the late Prof. Edward Martin), to open up a new field for and a new method of doing this operation. He has now extirpated the kidney five times—four times successfully. And, strange to say, he has done the operation for what is known as floating kidney. His operation before Listerism would have been wholly unjustifiable. But now it is justified by its simplicity and its success. It is as simple, if not as easy, as ovariotomy, and quite as successful. Certainly so in Martin's hands. I had the satisfaction of assisting at Martin's fifth operation, on the 19th of April. The operation is by abdominal section. Instead of using a single table, five feet long, for his operations, he has two tables, each about two and a half feet long, end to end, one being a little lower than the other. The patient was chloroformed in her own chamber, and then brought into the operating-room, and placed on the table, with the head to the window. The head was on the lower table, the pelvis on the higher one. The head was placed low, with the intention of preventing syncope, the chief source of danger in the use of chloroform. Martin's spray-apparatus is an enormous affair that will work for hours. It was placed six feet or more from the patient, and the spray passed over the assistants, and fell on the patient, not in a dense cloud, but in a sort of mist. It seemed to me to be "too much of a good thing."

The operation was begun at ten minutes to 8 A.M., and was finished in twenty-six minutes. It was done slowly and with great painstaking. The incision was begun about two inches above the umbilicus, and extended two inches below it. The bleeding from the edges of the abdominal wound was arrested, as in ovariotomy, with hæmostatic forceps. The peritoneum was then incised. Some folds of small intestine protruded, and were pushed back and retained by a carbolized sponge probang. The kidney was then pushed to the abdominal incision by pressure on the loin behind, where it was seized with a vulsellum, and securely held. The peritoneum investing it was then opened longitudinally; and the kidney was enucleated and brought freely into the peritoneal cavity. Some large veins on its surface were ligated, and its attachments (consisting of renal artery, renal vein, and ureter with cellular investments) were tied in sections, just as we secure a broad pedicle in ovariotomy. The pedicle (so to say) of the kidney, necessarily running longitudinally with the kidney, about three fingers' width long, was transfixed, and tied with five separate ligatures. The kidney was then neatly dissected away from the pedicle and removed. The pedicle was dropped back into its proper place behind the peritoneum; the peritoneal cavity was then carefully sponged dry; and the external wound was closed with interrupted sutures. The sutures and ligatures were carbolized silk. Antiseptic dressings were applied, and the patient removed to her bed.

I saw her twenty-four hours after the operation. Her pulse, temperature, and expression were good; and I thought she would in all probability recover. But I have since heard from Dr. Martin that she died of peritonitis three days after operation. All of Dr. Martin's operations have been done for floating kidney. Heretofore we have told our floating-kidney patients that they must accept their condition as incurable. Whether we will readily follow the bold example of Dr. Martin, and extirpate floating kidneys hereafter, is a question.

Dr. Martin had his last case under observation four or five months. He had failed to relieve her sufferings in the least. She complained of weight and pain in the kidney; could not work; and yet was obliged to work to make her living. Having exhausted all other means of relief, he proposed the operation, laying before her and her husband its dangers. After due deliberation, they determined to have the operation, being greatly encouraged by the fact that Dr. Martin had already performed it successfully four times.

Dr. Martin says that in one of his cases he had great difficulty in completing the operation. The patient was fat, the abdominal walls loaded with fat, and it was necessary to make a transverse incision to the right from the median line. The kidney was then safely removed; but the first dressing of the wound, a day or two after operation, showed that the transverse incision had failed to unite; it gaped widely open, and for two or three days afterward the liver could be seen at each dressing, moving up and down with each respiratory act. Notwithstanding all this, the patient recovered without a bad symptom.

We all remember Dr. Miller, of East Broadway, who died some ten or twelve years ago, worn out with kidney disease, complicated with abscess and stone in the pelvis of the kidney. He was an able physician, one of the best of men, loved by his friends and patients, and greatly respected by his confrères. When I first knew him, I too was in bad health, hardly expected ever to recover, and my sympathies were naturally drawn to him. His manly form was bent, and his genial face furrowed with the lines of suffering, as he worked bravely on to the last for the relief of the suffering of others, without the least hope of relief for himself. In such cases as this there is certainly a future for Martin's operation. In such a case as this we might cut down on the kidney, as Martin does, and if we found a stone in the pelvis we could remove it, close up the incision with suture, return the kidney to its place, and leave the case to nature's efforts.

CHOLECYSTOTOMY FOR REMOVAL OF GALL-STONES.

In my paper on cholecystotomy, published a year ago, I urged the propriety of cutting down on the liver, for the purpose of removing gall-stones from the gall-bladder. This operation was done recently by Mr. Bryant, of Guy's Hospital, and the case was to be brought before the Clinical Society of London last week. Mr. Bryant told me a few days ago (May 8th) that the operation was successful, and his patient cured. With the lights now before us, there is no reason why we should not do the same thing for the kidney, if done with antiseptic precautions.

EXTIRPATION OF THE UTERUS.

The name of Schroeder is well known amongst us. We are all familiar with his classic work on gynecology and with his great success as an ovariotomist since his adoption of Listerism. He is yet a young man, with a splendid record and an assured brilliant future. I saw in his wards an interesting case of extirpation of the uterus for sarcoma.

The operation had been performed about ten days before, and the patient was convalescent. She was nearly forty years old, and had a tumor about the size of an egg in the body of the uterus. A bit of it was scraped out with the curette, submitted to the microscope, and found to be malignant.

Prof. Schroeder then determined to extirpate the organ. He made the incision as for ovariotomy; drew the uterus up from the pelvis; transfixed the

cervix with a double ligature antero-posteriorly, just above the vaginal junction; tied one on each side, including the corresponding part of the broad ligament, just as Péan does; and then he amputated the body of the uterus from the cervix at the os internum. This left a raw surface about an inch and a half in diameter, which Péan and others have been in the habit of pulling outside through the lower angle of the abdominal incision, and fixing it there, as they did the pedicle in ovariotomy. The clamped pedicle and Listerism are antagonistic, if not incompatible. Prof. Schroeder did not wish to leave a sloughing pedicle outside; nor did he wish to leave a suppurating one inside the peritoneal cavity. And he hit upon this happy idea. He exsected the cervix conically from the amputation surface down to the point at which it had been transfixed with the ligatures; and then he brought its thin edges together antero-posteriorly, and secured them with fine interrupted carbolized silk sutures. Thus the incised surfaces were brought into contact internally, leaving only serous surfaces in contact in the peritoneal cavity. It was beautiful in theory and successful in practice; for the patient recovered, with the pulse and temperature remaining very nearly normal all the time.

LITHOLAPAXY.

To the Editor of The Medical Record.

Dear Sir:—An editorial paragraph in the Record of May 31st mentions that the letter from Sir Henry Thompson to Professor Van Buren, which appeared in the previous issue, was written for publication.

Sir Henry's reiterated criticisms of lithotrites should not be allowed to obscure the main facts, be their value more or less, of Rapid Lithotrity—which means long sittings for the immediate and complete evacuation of the fragments by large tubes, and depends upon the newly discovered tolerance of the bladder to the smooth surfaces of instruments—while the old lithotrity meant repeated short sittings and sharp fragments left in the bladder.

The size of a lithotrite has little to do with litholapaxy. Stones are so frequently soft and small that a small lithotrite of any kind may be often large enough. Of course the operator will be careful not to break such a lithotrite upon a large or hard stone. Like other lithotrites, mine is made in various sizes. It is not a large lithotrite that I have desired to bring to the attention of surgeons, but a new lock, with protective and non-impacting blades—designed to promote safe and rapid work at a moment when the hand or the attention of the operator is fatigued by a long operation. I prefer a large lithotrite, if it possesses these qualities, even in dealing with common calculi. Sir Henry prefers a smaller one, and frequently withdraws it to clean it. His prejudice against a large instrument is connected with a lifelong and erroneous theory that the dangers of lithotrity result mainly from the instruments used in the operation. This was the general mistake of the day. It was not known that the irritation was really occasioned by the fragments which it was the custom to leave in the bladder. When these fragments were drawn out by my apparatus, and that source of danger to the bladder was removed, it was found that the instruments themselves did but little harm. Sir Henry, perhaps, might long ago have discovered this fact of the tolerance of the bladder to instrumentation, if he had possessed any means of evacuating it thoroughly. But he had only Clover's instrument, the tube of which was so small (21 French) that it drew out only sand, and left the fragments. Hence his error, and failure to discover the new facts of what is now known as rapid lithotrity.

Sir Henry devotes the last half of his letter to the expression of creditable sentiments in relation to his attitude towards surgical progress. A little explanation may be here desirable.

A year after the publication of my paper he published a lecture in the *Lancet* (February 1, 1879), in which he says, "My own system has for a long time past been gradually inclining to the practice of crushing more calculus at a sitting, and removing more débris by the aspirator than I formerly did," which might very well be true, his former sittings having been limited to two minutes or less; but the hindrance to his "removing more débris" was the small size of Clover's tube. The editor of the *Lancet* replied (February 15), "We cannot close our eyes to the fact that the views advanced in his lecture of the 1st inst. do involve an abandonment of his old position. Lithotrity as hitherto practised by him, and lithotrity as recommended and performed by Professor Bigelow, are different operations, and based on opposite and contradictory principles." This "editorial observation" in the *Lancet* Sir Henry, curiously enough, chooses to regard, in his letter published in the Record, as "adverse criticism of himself personally, not of his mode of operating."

In this connection Sir Henry expresses the opinion that the terms "abandonment of position," and the like, "adapted, as they are, to military men," do not accord with the aims of men who "'live and learn.'" . . . . . "It is an error," he says, "to look for a lifelong consistency in matters of opinion from men who think for themselves." The world will not question the right of Sir Henry to "live and learn," nor to "think for himself," but only the propriety of his claiming to have originated by "thinking for himself" ideas he has learned from others.

A friend has to-day sent me the fifth edition, just published, of Sir Henry's "Diseases of the Urinary Organs." I find that in this edition Sir Henry both honors Rapid Lithotrity with his indorsement and appropriates as his own its essential details.

He adopts large tubes, increasing the ineffectual catheter of Clover from 21 to 29, which latter calibre I often employ, my usual size being 30, and my largest 31. "You are first to introduce," he says (p. 173), "an evacuating silver catheter fitted with a flexible stylet—in size, say, from No. 14 to No. 16, English scale:" calibres equivalent to 24 and 29 French.* Here being the essential feature of the operation, Sir Henry at this point definitively abandons "consistency" and the 21 tube of his previous editions, in favor of "large evacuating catheters and a good aspirator" (p. 177). Neither of these he used before I described them. This gives him the key to Rapid Lithotrity, and he is able to accomplish thorough evacuation at once by prolonging the sitting till evacuation is complete, demonstrating at the same time that the bladder toler-

* [illegible] English. Larger calibres have hitherto been but little known either in France or England. The [illegible] Clover's tube.

ates instrumentation, if the fragments are removed—which is the new principle that underlies Litholapaxy. The large tube once appropriated, the rest is easy. The aspiration of his new edition means effectual aspiration with large tubes, and his Lithotrity becomes Rapid Lithotrity.

A comparison of this, Sir Henry's present practice, with his recent opposite teaching of frequently repeated crushings—each confined to a few minutes, lest the instrument injure the bladder, but leaving the bladder nevertheless to struggle, in the intervals, with debris which he had no means of extracting—will show the significance of the criticism by the editor of the *Lancet*.*

In conclusion, I may venture to hope that the valuable example set by Sir Henry in accepting large tubes will aid in doing away with whatever apprehension still exists of danger from their use.

HENRY J. BIGELOW.

BOSTON, MASS.

EMPYEMA TREATED BY ASPIRATION AND BY OPEN INCISION, WITHOUT INJECTIONS.

BY JAMES J. HEALY, M.D.,

AND

E. P. HURD, M.D.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Two cases of empyema, under the care of Dr. J. J. Healey, have terminated successfully: the first after two aspirations with a Dieulafoy aspirator; the second, after making a permanent opening into the thoracic cavity, from which pus exuded almost constantly for more than a month.

CASE I.—J. C., aged 40, unmarried; an intemperate man; day-laborer by occupation; broken down by bad habits. Came under Dr. Healy's care in January last. The patient suffered for some ten days from fever, with pain in right chest, dyspnœa, and prostration; fever assumed a hectic type, with profuse sweats. Dr. E. P. Hurd was called in consultation. The diagnosis of the attending physician—pleurisy of the right side, with effusion—was confirmed, and the necessity of immediate aspiration concurred in. Pulse was then 130; fever-heat 103; respiration 40 per minute, and performed with much distress. There was decided bulging of the thorax posteriorly and in right infra-axillary region, and dulness all over the base of right lung, and loss of respiratory movement and murmur. Respiratory sounds on the left side were normal, but exaggerated. The patient could lie only on the affected side.

The aspirator needle was introduced between the eighth and ninth ribs, on a line with the inferior angle of the scapula, and a pint of laudable pus withdrawn. This gave great relief to the patient, who commenced forthwith to mend. The aspiration was repeated the week following, but only a few ounces of pus were withdrawn.

The subsequent history of the patient is one of uninterrupted recovery.

CASE II.—The treatment of this case coincides in a marked manner with that of Prof. Post, recorded in the RECORD for April 5, 1879. It illustrates the safety with which, in cases of empyema, a permanent opening, whether by knife or trocar, may be made into the thoracic cavity.

M. D., a child of three years, was taken ill with pleurisy about the 1st of February. Dr. Healy saw the patient about the 14th, and diagnosticated pleurisy with effusion. Pulse 110; respiration 48; temperature 103°; decided bulging of right side; left laboring heavily; right side almost motionless; patient lies on the sound side and back; dyspnœa; marked hectic.

Percussion indicated great dulness over whole of right chest, front and back, below level of nipple; left lung was abnormally resonant throughout. Auscultation gave no respiratory sound over right base; on the left side the respiratory murmur was puerile. Above the line of dulness, on the right side, there was bronchial breathing.

Dr. E. P. Hurd saw the patient in consultation, and concurred in the diagnosis and the mode of treatment demanded. At this time the pulse was 160 and feeble, and the dyspnœa was extreme. The aspirator needle was introduced between the seventh and eighth ribs, just in front of their angle, and eight ounces of laudable pus were removed, to the great relief of the little patient.

On March 4th the aspiration was repeated, the right chest being full of fluid, and the dyspnœa being urgent. Thirty ounces of pus were withdrawn, with signal relief to the suffering child.

On March 7th, the pleural cavity being again oppressed by a purulent collection, Dr. Healy made a permanent opening between the ninth and tenth ribs, on a line with the inferior angle of the scapula, dissecting his way into the thoracic cavity with a common bistoury; a gush of matter followed, which was somewhat fetid. A fistulous opening remained, which only required to be occasionally cleared out by means of a probe. Carbolic dressings were applied. Pus flowed intermittingly for more than a month. By April 15th it had ceased to run, and the fistulous opening closed. Some little deformity ensued by retraction of the ribs of the affected side; but the lung has been fast regaining its normal position and function. The child is now apparently as well as ever.

NEWBURYPORT, MASS.

* The *Lancet* of May 17 contains a letter on this subject.

GRINDELIA ROBUSTA IN RHEUMATIC AFFECTIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Some time ago I noticed in several of the medical journals suggestions as to the use of grindelia robusta in asthmatic affections. I took occasion to make use of this remedy, and found that although in some cases a certain degree of benefit was perceptible, yet it by no means equalled the results I had been led to anticipate. The thought occurred to me that it might be well to couple with it some preparation of yerba santa, this having acquired considerable reputation of late in the treatment of bronchial affections. Accordingly, the next time asthma was submitted to my care, I prescribed as follows:

℞. Elixir grindelia robusta..... ℥ xij.
Glycerole of yerba santa..... ℥ iv.

M. et Sig. from two teaspoonfuls to one tablespoonful four times a day.

The result exceeded my most sanguine expectations, and I will give the brief details of three cases:

CASE I.—Mrs. L. M., aged 37, had suffered from asthma fifteen years. During this period she, like almost all asthmatics, had tried many remedies with

no practical relief. Coming to me August 4, 1878, I gave her the medicine to which I have just referred. Before commencing treatment she was robbed of the latter part of almost every night's rest. About two o'clock in the morning the sitting posture, and the smoking of a preparation for the relief of dyspnœa, became imperatively necessary. The loss of sleep consequent upon these procedures had their legitimate effect upon her system. Emaciation and general debility followed, and her careworn and anxious countenance plainly indicated the suffering she was undergoing.

The first night the medicine was taken refreshing sleep till six o'clock in the morning resulted. From that time to the present she has not lost a night's rest from this cause, nor felt more than a very slight indication of a return of asthma, notwithstanding she has suffered in the interim several times with a severe cold. She has gained flesh, is much improved in general health, and says the medicine has been and is to her of invaluable worth.

Case II.—Mrs. L. P., aged 32, was an asthmatic for ten years. Emaciation was very marked, her rest habitually broken, and her bowels were obstinately constipated. Coming to me November 4, 1878, I gave her the grindelia robusta and yerba santa. During the first two days the relief was slight, but improvement then became decided. At this juncture the breaking up of housekeeping caused a severe and continued cold, and her asthma became nearly as bad as ever. The remedy was continued, however: the patient recovered from the attack, and has not felt any indications of a return of her malady up to the present date. Her bowels have become regulated, and her general health and emaciation very much improved.

Case III.—Mrs. A. V., aged 50 years, an asthmatic for eighteen years. She had been so intense a sufferer as to become a confirmed morphine eater; she commenced the treatment already referred to December 4, 1878. Immediate and (up to the present time) permanent relief was obtained. I would remark, incidentally, that her morphine habit has also been cured, and I regard the manner in which it was accomplished of sufficient interest to merit passing mention. Her husband invariably purchased the drug for her; I took advantage of this fact to empty the contents of a bottle of morphine, extract a little of it, and substitute in its stead the same quantity of quinine. After mixing them thoroughly, they were carefully replaced in the bottle, and Mrs. V. kept in ignorance of the change. During the first few days her symptoms were very distressing and even alarming. Recovery, however, soon occurred, and every time morphine was purchased I lessened its quantity and increased the quinine until at last she was taking clear quinine. At this juncture the deceit was made known to her, and inasmuch as she had not suffered from asthma for a long period her good sense impelled her to discontinue the use of both morphine and quinine.

From the gradual reduction in the quantity of morphine and the similarity in the taste and appearance of the two drugs her suspicions were not aroused. With the exception of a few days during the latter part of the treatment, she made no complaint of tinnitus aurium; and the quinine, acting as a tonic, to a large extent improved her general health.

I think this case is interesting, not only as regards the relief from asthma, but from the possibility in this manner of breaking up the morphine habit.

It is not necessary to cite more instances: those already given are but fair illustrations of other cases in which I have used the remedy. I have prescribed it about twenty times, and in only two instances (and these were cases of a very complicated nature) where patients have followed my directions has it failed in producing good and (up to the present writing) permanent results. After the medicine has been taken in large doses for a few weeks the quantity may be gradually reduced, and at last altogether discontinued. I have noticed in some cases that considerable nausea and looseness of the bowels were temporarily produced.

Frank Allport, M.D.

Sycamore, Ill., May 24, 1879.

"TREATMENT OF OBSTINATE VOMITING BY SMALL DOSES OF IODIDE OF POTASSIUM."

To the Editor of The Medical Record.

Sir:—Having noticed in the Record of March 15th, under the above heading, an article taken from a statement made by Dr. Formica Corsi in the "Gazette Obstetricale," and having a patient suffering from obstinate and intractable vomiting arising from spinal inflammation, and having exhausted all the remedies ordinarily employed as anti-emetics, without the least amelioration in the symptoms, I determined to try the iodide in the minute doses recommended by Dr. Corsi. The vomiting had occurred immediately after taking food of any description, quantity and quality making no apparent difference. Vomiting occurred with very little effort, nausea persisting for only a short time after the contents of the stomach had been entirely rejected.

This state of things had existed for at least two months, in which time she had retained only an occasional mouthful of food.

After the use of injections of beef-tea and egg for several days, during which time nothing but a little drink was allowed by the stomach, one or two meals were retained, but the vomiting commenced again, and continued up to the time of the administration of the iodide. I gave it in solution, in doses of $\frac{1}{36}$ grain, repeated every hour and a half; and since then—now fourteen days—she has retained everything she has taken, excepting one or two meals, when she had omitted the drug for a few doses, at my request, as a test.

Respectfully yours,

George Huntington, M.D.

La Grangeville, N. Y., May 4, 1879.

New Instruments.

A REMOVABLE PAPER BRACE FOR THE TREATMENT OF POTT'S DISEASE AND LATERAL CURVATURE.

By Ap. M. Vance, M.D.,

of New York

The use of paper in the treatment of spinal disease first suggested itself to me while a student in the University of Louisville, in the summer of 1877. During the year preceding I had been using the plaster jacket in all forms of spinal disease. The chief objections to the plaster, viz., its weight, imperviousness, liability to break down easily, necessitating frequent reapplication, and the difficulty of removing the same, I thought might be overcome by some removable dress-

ing, which secured the same support and at the same time would prove to be far more durable. I had seen in the practice of Dr. Cowling the use of the paper in fracture splints, with results in every way satisfactory.

The great obstacle in the way of using the paper for the spine was, that it could not be applied directly to the body, on account of the time required for hardening, and the yielding of soft parts. A smooth dressing without wrinkles was next to impossible. To overcome this objection, I first constructed the brace over a plaster-jacket which had been removed from the body. The jacket thus made being, of course, somewhat too large, a vertical section was removed in front and behind; the parts then being brought together and laced like a corset.

This division was deemed necessary, as it was not supposed that the dressing would be elastic enough to open sufficiently to admit the patient's body without breaking. After two or three attempts this was found to be quite superfluous. The jacket made over the plaster, itself not an accurate cast of the body, necessitated padding at different points in order to secure an easy fit. It occurred to me then that the plaster-jacket first taken, might be filled with the mixture of plaster, and this having been allowed to set, the external jacket then removed, a perfect cast of the body could be obtained. This was easily accomplished and a perfect fit secured. Up to this time I had been using the egg and flour paste, but the hot weather effected such changes in this, that a disagreeable odor was developed. In connection with Dr. Vincent Davis, a prominent chemist of Louisville, I experimented with the view of obtaining a glue, as a substitute for the paste, not open to the above objections. A mixture of white glue and oxide of zinc we found to answer the purpose admirably.

Dr. D. W. Yandell, whose student and assistant I was at that time, early recognized the superiority of the paper over the plaster-jacket, and adopted this in the treatment of all spinal cases. These were under my own immediate care, and I take this opportunity of publicly thanking my preceptor for the opportunities he afforded me of testing the appliances thus constructed. The practice thus afforded me in Dr. Yandell's office and at his clinics extended over a period of nine months, and I had abundant clinical material on which to make observations.

In the beginning of 1878, one of his patients, wearing the new paper brace, visited Chicago, and there came under the observation of Dr. Edmund Andrews, who was so favorably impressed with the dressing that he wrote to Dr. Yandell for a description of its construction. By request, I wrote a description, which was forwarded to Dr. Andrews, who has recently made reference to its advantages in the April No. of the Chicago *Medical Times and Examiner*. In the spring of 1878 I gave a demonstration of its construction and application before the Kentucky State Medical Society, then in session at Frankfort. About the same time, at the request of Dr. Lewis A. Sayre, I forwarded to him a jacket and head-spring complete, accompanied with a full description. In a letter under date of May 19, 1878, acknowledging its receipt, he makes two objections, viz., imperviousness and cost, which I shall refer to at the conclusion of this paper. Since that time I have used the brace in my own practice at Louisville, with such modifications and improvements as have suggested themselves to me from time to time. The most important changes were the introduction, between the layers of paper, of narrow, vertical steel springs, adding greatly to the strength of the brace, and enabling me to dispense with several additional layers of paper, thus greatly diminishing its weight and bulk; extensive perforation of the brace, which thus secured ventilation without materially diminishing its strength; and further modifications in a manner to be hereafter described, to make it efficient in lateral curvature. The method of making the brace is as follows: An ordinary plaster-jacket of good length is first applied, especial care being necessary to secure a smooth inner surface. By adding a tablespoonful of alum to the quart of water used, the plaster can be made to set much more quickly, so that it can be removed almost immediately. This is done by cutting down in front. Having brought the cut edges together and fastened them with twine, the jacket is placed on a table and made water-tight by plastering around the base and up the incision in front.

The plaster mixture, of the consistency of thick cream, is now poured in until full. By partially filling with bricks, before pouring in the plaster, much less will be needed. In ten or fifteen minutes the external jacket can be removed. This must be done with care. Any slight irregularities in the cast must be smoothed off with a knife. Thus prepared, it is thoroughly greased; the object being to confine the moisture still in the plaster, which might otherwise greatly retard the drying of the paper-jacket. Over this an ordinary roller is applied, which separates the jacket from cast, thereby protecting it from the grease, and giving a smoother surface.

Then canton flannel fitted smoothly over it, by tightly stretching, and secured by seam in back, forms the inside of the brace. To this the glue is applied with a brush. The following is the formula used: White glue, one part; oxide zinc, two parts; hot-water, six parts. Dissolve the glue in the water, and add the oxide of zinc, which should be finely pulverized. This will keep indefinitely, and is ready for use on reheating. Brown manilla paper of moderate weight—such as is used by mechanical draughtsmen—is cut in strips one and a half inch wide, long enough to reach a little over half-way around the cast, and applied horizontally, beginning at bottom of back, lapping each strip half-way; each strip having been previously coated with the glue. Having finished the back, cover the front in the same manner, lapping ends at sides, so as to give additional strength where most needed. Narrow steel-springs—those in ordinary hoop-skirts will answer—cut a couple of inches shorter than the cast, are placed vertically at intervals of one and a half inch; these being made to fit to the cast accurately by wrapping around the whole strong linen thread. Then another coating of glue, and the second layer of paper strips; this time being placed vertically, and lapping as before. A few turns of thread around this will secure accurate adaptation; over this another coating of glue, and lastly a roller, which must be drawn very tightly, and smoothly applied. This, covered with glue, forms the outside of the brace. It requires from twenty-four to forty-eight hours for this to dry, though much more quickly in the sun. It is then ready for removal, which is accomplished by cutting down in front and springing off the cast, with a small wad-cutter—or better, an ordinary belt-punch; this is perforated to any extent desired, care only being necessary to avoid the steel springs.

Leather strips, half an inch wide, with metal eyelets one inch apart, are sewed half an inch from edge in front, and laced with double lacing like a corset. This I have found to be the best way of securing the brace in front.

The brace is now lined neatly with canton flannel,

nap side out, or better material can be used if desired, linen answering well in summer. This can be renewed whenever cleanliness requires. It is well to let the lining extend an inch or more beyond the middle on one side, so as to form a tongue behind the lacing. The brace is now complete, as shown in Fig. 1. It

Fig. 1.

should be worn over a thin, tightly-fitting knit shirt, and is applied by springing open enough to admit the patient's body. The application of the brace to lateral curvature is somewhat different. The patient is first completely suspended, according to the method so fully described by Dr. Sayre; the object being to overcome the deformity as much as possible before applying the primary jacket. From this the solid cast is obtained, as above described. This represents the best possible position which the body can be made to assume. The wearing of a paper-jacket made over this cast would have the effect merely of retaining the advantageous position secured by the suspension, like the use of the plaster-jacket for a similar purpose; but would be of no avail in overcoming the deformity which still remained. This last can only be effected by some force acting continually upon the convexity of the thorax in such a manner as still further to straighten the spine. The power made use of in this case is produced by a band of sheet rubber (such as is used in making Martin's bandage), six inches square, which is sewed to the brace in front and behind, as shown in Fig. 2. So that when the brace is applied to the body, this band stretches tightly over the convex side of the thorax. In order that this force shall not be resisted by the opposite wall of the brace, a space must be left between the body and brace on the side of the concavity. This is secured by a slight alteration in the solid cast by filling out with plaster the depressions on this side, so as to make the contour of the cast regular. The amount of force can be regulated by varying the length and grade of rubber used. With these modifications, the brace for lateral curvature is constructed and applied precisely as in Pott's disease, previously described.

The chief points which recommend this brace to general use are the following:

I. All the advantages claimed for this plaster are secured without the objectionable features of:

1. *Weight and Bulk.*—The paper brace weighs from 8 to 16 ounces, the plaster-jacket from 3 to 6 pounds.

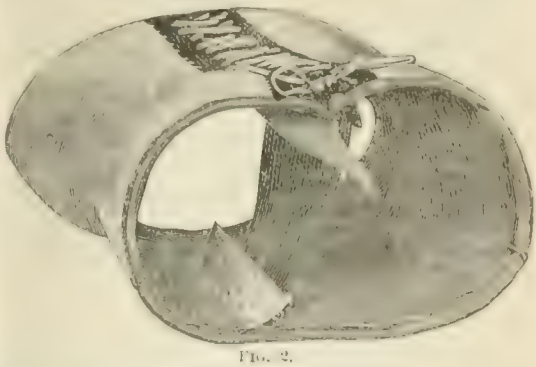


Fig. 2.

The plaster is from one-quarter to three-quarters of an inch thick; the paper rarely more than one-eighth of an inch, besides being an accurate model of the body. A dress can be fitted over it as smoothly as over an ordinary corset; a great advantage in the eyes of the mother, however much a doctor might ignore it.

2. *Imperviousness.*—Without stopping to discuss the question whether the plaster absorbs bodily moisture or allows it to pass through, it is certainly greatly inadequate to the needs of the body. The paper brace as first made without perforation was open to the same criticism. As now made, ventilation can be secured without loss of strength.

3. *Friability.*—A plaster-jacket will ordinarily last only four to six weeks before it begins to crumble, and is no longer efficient as a support. A well-made paper brace will last six months. In two instances, patients of mine wore braces eight months, when they were removed because the patients were well, the braces being still in good condition.

4. *The difficulty of securing a perfect fit.*—It is next to impossible to prevent irregularities on the inner surface of the plaster, because it is applied to the soft parts which are yielding. Two or three removals and reapplications are often necessary before one which the patient can wear is obtained. The paper jacket is made over a model which is at the same time firm and smooth, its inner surface consequently must be perfect. The same cast can be used repeatedly until the patient outgrows the brace.

5. *Difficulty of constructing a plaster jacket which can be removed and reapplied at will.* The paper brace can be taken off and adjusted as easily as a steel support, so that it is hardly possible for excoriations or abscesses to form without the surgeon's knowledge. Yet when it is applied and laced it secures as perfect fixation and rest for the parts as is obtained by the plaster. It also admits perfect cleanliness, the impossibility of which in the plaster is perhaps the strongest objection to its use.

II. The value of the brace lies in its adaptability to the need of the general practitioner in any part of the country. All the materials required are readily obtained; these are, plaster-of-Paris, materials for glue, paper, steel springs, bandages, and canton flannel. The brace, complete, can be made and well finished for one dollar and twenty-five cents ($1.25) or even less, the expense depending entirely on the amount of

finish. With a little experience the whole brace, excepting the time required for drying, can be made in an hour and a half.

III. The paper brace is believed to meet the indications in lateral curvature by a dressing more simple and efficient than any yet proposed.

In conclusion, I would say that the brace has now come into general use in Louisville and vicinity; the results obtained with it being such that, in the practice of the leading surgeons, it has almost entirely superseded the plaster.

Through the kindness of Dr. Knight I have, during the last few weeks, applied it to a number of cases at the Hospital for Ruptured and Crippled, and I hope soon to be able to establish, by statistics, the value of the brace. It is still open to many improvements, which further experience in its use will doubtless suggest. The desire to perfect it as far as possible has been my reason for not presenting it to the profession before.

135 E. 42D STREET.

A NEW FEEDING-BOTTLE FOR PREMATURE, FEEBLE, OR INVALID INFANTS.

By A. JACOBI, M.D.

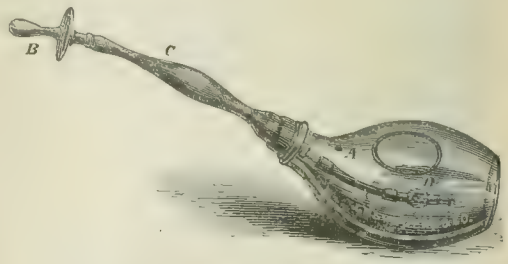
[From Vol. I. of Wm Wood & Co.'s forthcoming Treatise on Hygiene and Public Health.]

DAILY experience shows that new-born babies find little or no difficulty in sucking. Those who are not able to nurse will owe this incapacity to either muscular debility or to some other anomaly. Muscular debility may depend upon premature birth, or result from sickness and insufficient convalescence.

Another cause of inability to nurse may exist in dyspnœa, from either insufficient expansion of the pulmonary tissue, or from congenital or acquired disease of the lungs, or from heart disease.

Inability to nurse may also depend upon malformations. Not so much upon simple, uncomplicated hare-lip as upon double hare-lip, complicated with fissure of the palate. It very rarely depends upon anchyloglosson, now and then upon hypertrophy of the tongue, or upon ranula. In rare cases it also depends upon pseudoplasms of the tongue. I have myself described a case of congenital sarcoma of the tongue in the American Journal of Obstetrics, etc., August, 1869.

Nursing may also be interfered with by either simple or syphilitic nasal catarrh, giving rise to an accumulation of mucus, or blood, or mere thickening of the mucous membrane. Also by different forms of stomatitis—not only the thrush of the new-born and very young infant, but also by the erythematous and follicular stomatitis of the infant of more advanced age. To relieve children suffering from this difficulty of sucking, a nursing-bottle has been invented in France, and brought into the market under the name of "Biberon Pompe." I first gave publicity to this instrument on page 413 of the first volume of Gerhardt's Handbuch der Kinderkrankheiten, 1877, where I reported that a specimen of the apparatus in my possession was presented to me by Dr. O. Soltmann, of Breslau. Since that time Dr. Soltmann has modified the instrument to a certain extent, and published an account of it in an article entitled "On the Nutrition of Sick Nurslings by Means of a New Nursing-Bottle," Jahrbücher für Kinderkrankheiten, etc., Vol. XII., 1878, p. 406. The accompanying woodcut shows that a glass tube inside the bottle carries a small soft-rubber funnel, which is changed into a valve by means of an oblique cut through one-half of its body. Simple pressure upon the mouthpiece, either by the lips or by the alveolar processes, or by the fingers, is sufficient to cause the liquid to escape from the bottle. In cases in which the baby is not able to exert even this pressure, the slightest pressure upon the bulbous expansion of the tube, seen in the woodcut, on the part of the attendant, is sufficient to propel the liquid food into the mouth of the child. The apparatus is



A, air-hole; *B*, mouth piece; *C*, expanded part of sucking-tube *D*, funnel-valve.

to be recommended in just such cases as enumerated above, not only upon theoretical reasons, but from results derived from actual trial. About a year and a half ago, when I first exhibited the instrument before the New York Obstetrical Society, I had occasion to direct the management of a prematurely-born child with insufficient muscular development; and the infant was fed for months from this bottle, and thrived well.

In a case of spinal meningitis, occurring in an infant, and rendering it unable to suck, this bottle was used successfully; and the same can be said with reference to a serious case of follicular stomatitis, in which nursing was an impossibility.

The feeding-bottle can be obtained of Reynders, cor. Fourth Ave. and Twenty-third St., of this city.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 8 to June 14, 1879.

MCKEE, J. C., Major and Surgeon Medical Director, Dept. of Arizona, after inspection of post hospital at Fort Yuma, granted leave of absence for one month on surgeon's certificate of disability, with permission to go beyond limits of the dept. S. O., 64, Dept. of Arizona, May 31, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. The sick leave granted him from Hdqrs. Dept. of the Missouri extended one month on surgeon's certificate of disability, with permission to leave the Dept. of the Missouri. S. O., 137, A. G. O., June 11, 1879.

COLUMBUS MEDICAL COLLEGE.—Dr. D. Tod Gilliam, of Columbus, O., writes the reason why the Columbus Medical College became dismembered, and maintains that the statement made in the May number of the Ohio *Medical Recorder* has no foundation on fact. We hope no permanent damage will be done to either party, although it may be that both have unintentionally injured each other's feelings. "A soft answer turns away wrath, and grievous words stir up anger."

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 14, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox	Yellow Fever
June 7, 1879.	0	6	101	2	54	23	6	0
June 14, 1879.	0	11	114	2	65	24	12	0

MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.—Dr. James L. Little, formerly of the College of Physicians and Surgeons in this city, also Professor of Surgery in the University of Vermont, has been appointed Clinical Professor of Surgery, *vice* Dr. Joseph W. Howe, resigned.

NEW YORK SUPREME COURT.—Decision of Justice Lawrence in the case of Mary Ann Proctor against the Manhattan Eye and Ear Hospital, May, 1879.

LAWRENCE, J.—It appears that the defendants were organized under an act of the Legislature as a corporation, in the year 1869, and the object of the corporation is declared, in the second section of the act, to be the establishment of a hospital in the City and County of New York, for the treatment of indigent persons suffering from diseases of the eye and ear. The fourth section of that act provides that the Board of Directors shall have power to enact by-laws and regulations for the conduct of its officers and not inconsistent with the constitution and laws of this State. This is the language of the statute:

"*Fourth.*—No alteration or amendment of the by-laws, nor any additions thereto, shall be made except by a vote of a majority of the Board of Directors. The board shall be convened for such special purpose at a notice to each Director, expressing the proposed alteration and amendment to be acted upon, and the yeas and nays shall be taken and recorded on the book of minutes on each question, and shall show, besides, in case of vacancy, surgeons of the hospital, and apprentices, other surgeons, and servants, as they may deem necessary to transact the business thereof, appoint, and designate the salaries.

"*Fifth.*—The Board of Directors shall determine the qualifications for membership of the said corporation, and persons duly qualified shall be eligible for Directors in case of vacancies occurring in the Board.

"*Sixth.*—The corporation shall possess the general powers, and be subject to the general restrictions and liabilities prescribed in the third title of the eighteenth chapter of the first part of the Revised Statutes."

Under those provisions of the Revised Statutes, it has been held that a corporation is made subject to the visitatorial power of the State, which may be put in motion by the Attorney-General or other appropriate officer. After as careful and deliberate consideration as I have been able to give to the case, I am of the opinion that the effect of that act is to create a corporation, or, if not a corporation, a trustee, and I am, therefore, free to say that I cannot, after such consideration, distinguish this case from the case which is reported in the matter of *Kings Mechanics vs. The Messachusetts General Hospital*, 19 *Mass.*, p. 124, in which the court sitting in bank, upon a question raised by the present Attorney-General of the United States, and unanimously concurred in by each and every member of the court, distinctly holds, "That a corporation, though of such a character as to be entitled to hold property for its own purposes, having no capital stock, and not being entitled to any profits, dividends or income therefrom, for the benefit of its members, but holding such property for charitable purposes, and for the benefit of others, and applying the income thereof to the charity, and soliciting the benefactions of others for the same purpose, is a charitable institution, and is subject to the visitation of the Supreme Judicial Court, as trustees of charities, and to be compelled to account in equity for the misapplication of funds given for charitable purposes, although the persons who receive the benefit of the charity are not considered as cestuis que trust, but as objects of charity, and although they may be selected by the governors of the institution, and may be entirely changed by them, and although they may be required to pay for the benefits they receive, and do not receive them gratuitously, if the payments made by them are not sufficient to support the charity, and do not render it the less a charity, and although the governors may be themselves interested in the charity, as officers, and receive a compensation for their services, if the compensation is not excessive, and is not the principal object of the charity, and although the governors may be themselves contributors to the charity, and may receive and use the benefits of it, in common with others, if they do not thereby convert the charity to their own use, and although the governors may be themselves interested in the corporation, as members, if they do not thereby convert the property

those conversant with the employment as necessary to qualify him to engage in such business.

"*Second.*—That he will use reasonable and ordinary care and diligence in the exercise of his skill and the application of his knowledge to accomplish the purpose for which he is employed.

"*Third.*—That he will use his best judgment in the exertion of his skill and the application of his diligence."

As I have said on the other branch of the case, the proof is overwhelming and uncontradicted, that in this case the surgeons consulted and employed, exercised reasonable and ordinary care and diligence in the exertion of their skill, and if they did make a mistake in judgment I would not be justified in sending this case to the jury.

In this case the proof is also overwhelming and uncontradicted that the best judgment of these physicians was exercised. There is no proof on the other hand. Not a single medical witness or surgical witness has been produced on the part of the plaintiff who has assumed to say that this operation for glaucoma, which was determined by the examining physicians to exist, was not a perfectly proper and reasonable operation, and one which duty required them to make and, therefore, I can very safely rest this case upon this point that the plaintiff has not made out a *prima facie* case to go to the jury, even if this were a case which had been brought directly against the surgeons or the physicians for malpractice. There have been during the course of this trial, some allusions to the great hardship of the case. We all recognize that, and no one can see the affliction under which the plaintiff labors without extending to her his sympathy and his condolence, but with those considerations I cannot deal. It is my duty to enforce the law as it has been laid down and expounded by the judicial tribunals who are my superiors, and however unpleasant the duty may be I hope I shall never be found unable to discharge and perform it. For the reasons stated this complaint must be dismissed.

PROVISIONAL REPORT OF THE COMMITTEE OF THE NEW YORK NEUROLOGICAL SOCIETY, RELATIVE TO THE SUBJECT OF INSANE ASYLUM ABUSES, ACCEPTED BY THE SOCIETY JUNE 2D.—The undersigned, constituting the Committee on Insane Asylum Abuses of the New York Neurological Society, respectfully report that the petition prepared by them, and which contained the complaints deemed most important, was signed by many prominent physicians, lawyers, and other citizens, and presented to the State Senate on the 20th of March last.

It was referred by that body to two members—Mr. Goebel, of this city, and Mr. Goodwin, of Utica—constituting the Committee on Public Health. That committee has now made a report so unfair, one-sided, and so grossly misrepresenting the real facts of the case, that we feel called upon to solemnly protest against its being received by the profession and public as even remotely embodying the results of a *bona fide* examination. There was not even the pretence of a fair examination made, documentary evidence was excluded, the bias of the Committee was evident from the first, and they were surrounded by superintendents who had been examined the day previous, without any member of your Committee being notified thereof.

One member of your Committee who was examined at Albany, was forced, in self-protection, to protest against the passing, from superintendents to the Senator examining, of slips of paper containing questions desired by the former to be propounded to the witness, and superintendents were repeatedly seen to prompt that Senator. It may suffice, in possible explanation of the bias of the Senate Committee, to refer to the fact that the Senator conducting the examination is a resident of Utica, and strongly affiliated with the authorities of the asylum there located. It will be noticed that the Senate Committee is extremely careful in summing up its so-called conclusions, to speak of State institutions exclusively (meaning asylums supported and controlled by the State alone), although the petition distinctly referred to all lunatic asylums within the State limits.

As further characterizing the animus of the Senate Committee, we may refer to the fact that their piece of special pleading, miscalled a report, has been extensively circulated among superintendents and their friends, although no member of your Committee has received a copy, and we have no other knowledge of this report than that furnished by the daily papers.

It is also worthy of note that the Senate Committee, although informed that much valuable evidence could be obtained in New York, where most of the petitioners resided, evidence which could not be obtained at Albany, avoided receiving this testimony by refusing to meet anywhere but in Albany.

Your Committee has been charged by the partisans of the asylum interest with having appended names to the petition without authority, and misrepresenting its purport to signers. These charges are false in every particular; every name appended to the petition is authentic, and no one signed it without having had full opportunity to read it and become acquainted with its intent and purposes. It is true that a few of the signers became alarmed when they received a *quasi* threatening summons from the Senate Committee, and wrote that they withdrew their names, and that still a few others withdrew theirs at the personal solicitation of the superintendents, but the greater number of signers, including many prominent physicians, continue to affirm the pertinency of all the inquiries, and the necessity of a full investigation.

Your Committee proposes within a reasonable period to present a detailed report, exhibiting the actual character of the testimony presented, as well as other evidence which was excluded, in support of the allegations set forth in the petition. Your Committee is conscious of the fact that they require no better indications of their position.

The Committee.

T. A. McBRIDE, M.D.,
E. C. HARWOOD, M.D.,
E. C. SEGUIN, M.D.,
WM. A. HAMMOND, M.D.,
E. C. SPITZKA, M.D.,
J. G. KIERNAN, M.D.,
LANGDON C. GRAY, M.D.,
W. J. MORTON, M.D.

BRITISH MEDICAL ASSOCIATION.—In connection with the annual meeting of the British Medical Association, to be held in the city of Cork, Ireland, beginning August 5th, there is to be an exhibition of Sanitary Appliances, and Messrs. MacIvor, of the Cunard Line, the City of Cork Steam Packet Co., and the Clyde Shipping Co., have generously consented to convey exhibits free of freight to Cork by their respective steamships.

BOOKS RECEIVED.

INDEX MEDICUS. Vol. I. No. 5. May, 1879. New York: F. Leypoldt, 13 and 15 Park Row.

LONG LIFE AND HOW TO REACH IT: Health Primer. By JOSEPH G. RICHARDSON, M.D. Philadelphia: Lindsay & Blakiston, 1879.

THE PHARMACOPŒIA OF THE BRITISH HOSPITAL FOR DISEASES OF THE SKIN, LONDON. Edited by BALMANNO SQUIRE, M.D., London, Sen. Surg. London: J. & A. Churchill, 1879.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY FOR THE YEAR 1878. Vol. VII. Lansing: W. S. George & Co., Printers and Binders, 1878.

OUR DOMESTIC POISONS; or, The Poisonous Effects of Certain Dyes and Colors Used in Domestic Fabrics. By HENRY CARR, Med. Inst., C. E. London: William Ridgway, 169 Piccadilly, W., 1879.

QUESTIONS ON FOOD AND CLOTHING. By Mrs. W. T. GREENUP. London: Bemrose & Sons, 10 Paternoster Buildings, and Derby, 1879.

Original Lectures.

SPASMODIC DISORDERS OF THE LEGS.

PHILADELPHIA INFIRMARY FOR NERVOUS DISEASES.

S. WEIR MITCHELL, M.D.

(Prepared for THE MEDICAL RECORD.)

GENTLEMEN:—I have frequently called attention in this clinic to cases of spasmodic spinal paralyses, and have also not neglected to point out the fact, which Dr. Seguin and others have also long ago mentioned, that spasms of the legs and a prolonged rigidity are to be found in numerous and widely different cases of spinal disease.

My own clinical experience would lead me, as regards this matter, to the following conclusions:

1. That there are many forms of spinal trouble, myelitis, tumors, syphilitic alterations, etc., in which we find these symptoms as incidents in the course of the disease.

2. That there are rare cases in which spasms of the legs are due to obscure functional conditions, and in which these symptoms seem to be temporary, and to constitute the sole objective symptoms.

3. That the group of symptoms described by Seguin as tetanoid paraplegia, and by Erb and Charcot as spasmodic spinal paralyses, or spasmodic dorsal tabes, constitutes a distinct disorder, probably due to sclerosis of the lateral columns of the cord.

There have not as yet been so many cases of spasmodic spinal palsy reported as to deprive of interest thorough statements of other cases; so that the facts I shall add concerning these will not lack value. Moreover, in the matter of functional disorders of the lower limbs with spasm, I shall have quite enough to say of what is new, to justify me in calling your attention to this part of the subject.

I am not as yet quite sure that we may not be justified in making a distinction between two classes: perhaps they are species, or, haply, but varieties of spastic spinal palsies. This distinction would lie in the fact that we have one set of rare cases in which the spastic element is purely a rigidness, without large tremor or spasm—a rigidness caused by every muscular movement, active or passive.

The other set of cases presents like states, with excessive spasms of the legs on slight irritation; so that the rigidness which motion causes is accompanied with intermittent spastic phenomena and more or less paralysis.

Examples of the first group are rare; but when they occur with some paralysis, slight vesical troubles, and absence of sensory disturbance, I am disposed to refer the case, without much doubt, to the Erb-Charcot group (lateral sclerosis). In proportion, however, as the case exhibits, with these symptoms, differences, together with *excessive* phenomena in the way of temporary clonic spasms (Séquard's spinal epilepsy), am I disposed to suspect the presence of some cause other than mere sclerosis. The distinction may not be entirely just; nor, of course, do I wish to deny that trepidation makes part of many cases of lateral sclerosis; but, at the same time, I wish to point out that I have now seen several cases in which, with every other symptom, there never was either permanent contracture or any form of large tremor. These were instances of more or less loss of power in the legs; of nearly undisturbed sensation; of slight or negative vesical symptoms; of varying rigidity of the limbs.

Without giving these cases at length—and I saw both through many years, and until they died—I will relate their history in a condensed form.

Mr. L., a clergyman, of almost ascetic habits, began at the age of forty, and without known cause, to feel feeble. The weakness was worst on rising in the morning, and faded away before ten A.M. By and by, within a year from the first symptom, he began to have a singular walk, and then first applied to me; at this time he was, he said, less weak than he had been, and believed that the stiffness of the limbs, while it annoyed him, enabled him to stand, and even to move, with less effort. I ceased to reflect on this statement, until it was repeated in connection with another case quite recently. As I shall point out, it has its interest. In Mr. L.'s case the lower limbs were strangely rigid, and the stiffness was so nearly balanced, as regards the opponent muscles, that he walked chiefly by throwing forward first one and then the other side of the pelvis, so as thus to carry the feet forward in turn. At the same time the spine itself was somewhat stiff, and the head carried well back. To get on to his feet was a vast exertion; but once erect, he contrived to move in the singular style I have just described. To sit down, he would seize a chair-back with one hand, and then let his rigid legs slip forward, so that he fell on to the seat. Once seated, he managed, with one hand, to get hold of the pantaloon at the back of the calf, and, while he drew this towards him, with the other hand he held the thigh firmly. By these manœuvres he contrived to bend each leg. Once bent, they remained so until, by a desperate and often unsuccessful effort of will, they were again put into a state of extension. When at rest, as when seated, these limbs presented in perfection what we call here the "lead pipe" symptom—that is, to flex or to extend them was equally difficult; and the regularity and steadiness of resistance was precisely what is felt when we endeavor to bend a leaden pipe. If, when he was at rest, I lifted one leg a foot or two, and there left it, it would remain almost motionless for a moment, and would then descend by the aid of its own weight, without notable tremor. Every effort to move the legs, whether by act of will or passively, met with steady resistance, which, if overcome by abrupt violence, gave rise to pain. If he tried, by act of will, to prevent the raised limb from falling, the descent became, as it were, broken into a series of partial falls, with intervals of slower descent. With this remarkable condition, Mr. L. had no bladder trouble, except after six years some slight paresis; neither had he ever any sensory disturbances. His death was probably due to a cerebral hemorrhage, and took place when he had suffered about ten years from the spinal malady. As the case was interesting, and might have proved valuable, I was of course denied the privilege of a post-mortem section.

I recall most distinctly a very similar case, in which I was for only a few months the attendant.

This gentleman, æt. about forty-four when attacked, had been an excessively overworked professional man. He had never had syphilis. His trouble came on with vague discomfort in the back—a tired ache. Within a year or two the rigidity of the calves began to show itself, and by degrees this extended to other muscles until it became almost universal.

The arms and legs and back, and even the neck, were affected, and, late in the case, the patient insisted that the facial muscles were also somewhat

stiff. The rigidness was extreme, and the source of great discomfort, which was relieved, although only for a few minutes, by free passive movements. I believe the bladder was never seriously affected; and, except for some sense of numbness, there were no symptoms connected with touch.

The following history of a case of spastic paralysis corresponds closely to Charcot's description; but the clonic spasms were never very remarkable:

P. C., single, æt. 32; born in New Jersey. The patient's family history is good, and, as far as it can be obtained, is free from hereditary taint. When a child, she was considered remarkably healthy. At the age of ten years she had scarlatina; but from this she made a perfect recovery.

She has never had intermittent or typhoid fever. Her menstrual function began at the age of fourteen; and since then it has been performed regularly, and in a perfectly normal manner.

In February, 1878, while feeling perfectly well, she caught her foot, and fell heavily upon her left side, bruising her thigh, but not striking her head or spine. She recovered very soon, and does not consider that the injury had anything to do with the onset of her present trouble, for which she can assign no cause whatever. She has led a very easy life, and has always been very careful about exposing herself to cold and damp.

In June, 1878, she began to notice a slight degree of numbness in her legs between the knees and ankles, both legs being similarly affected; and soon after this, she noticed that her toes dragged a little, and had a tendency to catch in anything projecting at all above the level of the floor; and when she walked with bare feet, the toes of the right foot would sometimes turn directly underneath the sole.

The muscles of the legs, soon after this, began to grow stiff, so that free motion became impaired. In walking, her feet fell very heavy, and would strike the floor heavily; her friends telling her she walked as if she had "cork legs." Going up and down stairs was particularly difficult. Sometimes in walking she noticed that, besides the difficulty of touching the ground with her heel, her ankles had a tendency to turn outward; and, to avoid this as much as possible, she laced her shoes tightly. She has never noticed any difficulty in walking in the dark, although the sensation of her soles was impaired.

This latter symptom made its appearance about August, and extended part way up her legs; although it was most marked in the soles of her feet, the carpet not feeling as distinct to her as it should.

About this time, in getting down from a car, she was obliged to jump, as she was unable to step down. She alighted heavily upon her feet, and jarred herself very much; and for two or three days she experienced considerable pain in the sacral and lower lumbar regions; with this exception, she has had no spontaneous pain whatever. She thinks the symptoms made a more rapid advance immediately after this accident than they had previously done.

In September she noticed, for the first time, slight spasmodic twitches in her legs, particularly when quiet in bed; and these have continued since, becoming slightly more severe.

One month ago (latter part of September), owing to the gradual increase of the muscular rigidity, she was obliged to have help in order to get about. The abnormal sensation in her legs by this time had extended half-way up her thighs; but within the last two weeks it has extended to her body.

Two weeks ago she discovered a small spot at the junction of the lumbar and sacral vertebræ, which was quite sensitive upon pressure with the point of the finger, but not with a larger surface.

Within the last week slight difficulty in urination has made its appearance; the trouble being to evacuate her bladder even after she feels a strong desire to do so. She is naturally slightly constipated; but this symptom has increased lately also. Coldness of the feet has been a marked symptom, and even brisk friction would fail to warm them or to remove their pallor. She has never had the least sensation of a girdle; nor has she ever had any pain in the extremities.

Her arms appear to be entirely free from trouble; and the tactile sensibility and power of movement is perfect.

When standing in bare feet, the left ankle bends outward; and, although she can lift the left leg from the floor, she is utterly unable to move the right foot; nor can she stand without support.

Sitting up is a little difficult, on account of the rigidity of the muscles about the hip; and, when in this position, she finds it much easier to extend than to flex her legs. The power of the extensors is good, patient being able to resist flexion very strongly, while she cannot resist extension of the legs with nearly as much force.

The legs, when first moved, are somewhat rigid, and have a tendency to remain in the position in which they are placed; but after a little manipulation this disappears to a great degree. The adductor muscles of the thighs are likewise rigid, and the legs cannot be widely separated.

A very light tap upon the patella tendon of either leg causes a violent contraction of the extensor muscles of the thigh, and forced flexion of the foot likewise causes a spasm of the leg. This is particularly true of the right, although this procedure does not always cause the spasm. The slightest prick of a pin causes a very perceptible reflex spasm.

The compass-points cannot be recognized as two upon the soles of the feet, the points and the round end feeling about alike to the patient. Upon the dorsum of the left foot the points are recognized as two when two inches apart, and on the right foot when one and three-fourth inches apart (the normal distance being a little over one inch.—A Flint, Jr.). Over the patella of the right leg the points are distinguished when two inches apart, but not on the left side (normal distance being nearly one inch). Upon the thigh the sensation is nearly normal.

No apparent atrophy has taken place in the legs, both calves measuring alike—viz., eleven and a half inches. The reaction to induced current appears about normal, perhaps slightly increased. Pressure over upper sacral region, in the median line, or on both sides of it, causes considerable pain; and this region is quite sensitive to the galvanic current (negative pole), which causes but very slight sensation higher up. There is more sensitiveness to the current upon the right side than upon the left.

When lying in bed, her feet are strongly extended, and resist flexion quite powerfully. The feet are cold; there is no œdema. As before mentioned, there are occasional twitches in both legs.

Her appetite is fair; there is no cough; urine normal.

There is a considerable fibroid growth on the anterior aspect of the womb.

Dec. 7, 1878.—The legs have a tendency to remain flexed; and the feet are extended, owing to the contraction of the gastrocnemii group of muscles. The

other muscles are relaxed, so that the legs no longer show a tendency to remain in any position in which they may be placed. There is an increase of the wasting previously noted, the calves measuring a half inch less than at last measurement. She is utterly unable to stand without assistance, as her knees give way beneath her. The muscles of right leg contract more promptly to secondary interrupted current than do those of the left; and there is occasional spontaneous twitching of the extensors of both thighs; but this symptom is diminishing.

The reflex action of the tendons remains about the same as at last trial (viz., increased). The feet feel cold to the hand, although to the patient there is a frequent sensation of burning in them. The capillary circulation appears about normal. The toe-nails grow equally and naturally.

Pricking the insteps with a pin produces a sensation of pain in leg from knee to ankle, but no sensation at the point touched; and she cannot tell when the soles of the feet are touched. Sensation is impaired upward as far as a line drawn around body on a level with the anterior superior spinous processes, and at this point it apparently ceases abruptly. The patient, however, has perfect control over the sphincters at present.

There is no pain on pressure over abdomen, although there is spontaneous pain in the right iliac region, which the patient can bring on by sneezing or coughing. This pain is not modified in any way during the menstrual periods, which recur with regularity, and are normally performed. The painful spot over the sacral region is still present, and is limited to an area one-half inch in diameter; it gives no trouble. The patient does not think that the tumor has increased lately in size at all.

At the time I speak, this case has become worse; but the sensory disturbances have lessened rather than grown.

While here under my care this woman's case enabled me to study with care some aspects of the symptom rigidity, to which I have already alluded.

When she arrived, and I understood how troublesome was this symptom, I directed, among other means, that a practised masseuse should treat the stiff legs an hour daily. The treatment was simply kneading, with as little irritation of the skin and as little motion of the legs as could be managed consistently with thorough massage of the muscles.

Each treatment was found to lessen the stiffness, and in a few days it disappeared, to my great pleasure and that of the patient. Our happiness was short-lived; for when she tried to walk or stand, it was found that she fell at once, unless sustained, and was unable, as before the massage, to stand at all, or to move across the room. The cause was but too plain. The rigid limbs acted as splints, and enabled her, with the slight aid of her enfeebled muscle-power, to stand or walk a few steps. Without the rigidness of limb, the supply of nerve-force was insufficient to effect these purposes at all. After two or three days without massage, the stiffness returned, and with it capacity to stand. I had, indeed, given her a more than dubious help; and the massage was of course an experiment; but I was surprised to find that the handling did not increase the spastic phenomena. It is to be remembered, however, that in this woman's case the tremor and clonic spasms were not very marked. I may now recall the statement of Mr. L., Case I., who began by being weak in the legs, and was for a time made to feel less feeble by the invasion of the rigidity, which, after a while, entirely destroyed all power to move.

The most extreme case of these disorders I can recall I saw but once many years ago in the person of a priest, who had become rigid—almost literally from head to foot—since the neck and back muscles were involved, and there were, as I remember it, even in this advanced stage, no contractions save in the left hand, and in the adductors of the thighs. I have no notes of this case which I call up from memory. There were some curious cerebral symptoms, not the usual ones, and it may have been an unusual case of disseminated sclerosis. I mention it to describe a singular fact. The man was totally unable to speak until some one raised either leg, and moved it freely. If this did not answer, an arm was also thus exercised, and at last after a few moments he would begin to speak and continue to do so easily enough—so long as he did not pause. A half minute of silence made it needful once more to move the limbs, in order to enable him to speak again.

This phenomenon, curious as it is, does not stand quite alone in my experience. I saw some years ago a typical case of spastic spinal paralysis, in which there never was at any time the least evidence of spasms from the skin reflexes. Although sensation was perfect, abrupt or slow motion, passive or active, caused rigidity of the opponent group, but the reaction was firm and steady, not jerky. A few passive motions made regularly seemed to lessen the resistance, and even for a time to wear it out. The patient himself remarked to me that these exercises also relaxed notably the corresponding limb, and this was, indeed, plainly apparent. The absence of tremor, when this man was put on his feet, was striking; for although the great stiffness made needful some aid to enable him to keep his balance, there was lacking almost altogether the quivering play of the tendons, so marked in many of these cases; neither was there ever, in a history of seven years cut short by tubercle, any permanent contraction of the fingers. The bladder was not troubled for at least three of these years, and was never more than feeble.

Rigidity, with or without clonic spasms, is to be found in many clinical groups of symptoms. Cases accurately filling the required role of Erb-Charcot symptoms without exceeding it are, as I have said, somewhat rare. The following case, which came to the clinic of my friend Dr. Sinkler, is an interesting illustration of rigidity, tremors, and various other symptoms which leave me in much doubt as to the pathology.

Charles Perry, æt. 36; married. Patient has worked in lead paints for twenty years or more, but he has never had colic or constipation, nor has a blue line ever been detected upon his gums. He denies venereal taint.

In the spring of 1875 he was attacked, without any particular cause, with pain in the right shoulder and elbow; the pain would start in the elbow, shoot up the arm to the shoulder, through the shoulder-blade and back again to the elbow; this pain was sudden, sharp, and quick in character, and continued about the same for two years. In 1877 he was obliged to give up all work on account of the pain and the weakness of the arm, as considerable wasting of all the muscles of the shoulder had set in.

When first seen at the hospital, in September, 1878, the patient complained of shooting pains in the shoulder-blade and in the head; his appetite was poor, and a meal was invariably followed by water-brash and headache; he had tinnitus aurium and slept but poorly. Often in attempting to speak there would apparently be a spasm, which would suddenly arrest the

speech; as he expressed it, "something caught him" in the throat.

While sitting upon a chair there was a slight rhythmic trembling of the right hand and arm; when walking, the shoulder and pectoral muscles would begin to tremble, and the tremor of hand and arm would become much larger and pendulum-like in character. Even when in a recumbent position this tremor would continue, so that in order to get to sleep he had to lie upon the arm. When standing, there appeared to be a tenseness and rigidity of all the muscles of the right side, which tenseness was much increased during walking, at which time the patient would be drawn a little toward the right side; the ribs on right side appeared drawn together as if the intercostal muscles were also affected.

The right foot dragged a little during walking, and the great and next two toes were drawn toward the sole; his right thumb was drawn into the palm with sufficient force to cut the skin with the nail; this flexion of thumb relaxed when patient was recumbent.

Eye ground.—O. S. deep physiological cup, pulsation of veins, cribriform fascia sharply defined, disc indistinct, relation of veins to arteries normal. O. D. cup deeper, otherwise the same.

Urine normal.

There was no difficulty of swallowing, but occasionally immediately after eating he would eject considerable thick mucus (œsophageal vomiting?).

℞. Ol. morrhuæ, f ℥ss. d.; Elix. ferri, quin. et strych., f ʒ i. t. d.

Grip of both hands alike, registering by dynamometer 130. No dragging of right leg in walking, and April, 1879, a diminution of the tremor.

Improvement since October; patient stronger; less fibrilar tremor. Eructation of mucus still present; character of food taken immaterial as regards after-effects.

℞. Half tumbler skimmed milk every one and a half hour during day, and nothing else.

Stop ol. morrhuæ, etc.

Great improvement; tremor gone; likewise headache and eructation.

Has confined his diet to three quarts of milk daily.

Worse again as regards tremor.

Has gained twenty pounds since October. Pain in loins, across back of neck and in ear.

Tendon reflexes; left leg about normal; right leg a little increased.

The symptom rigidity, in the form of general stiffness of the mass of muscles of the legs, increasing with all forms of movement, has an interest apart from the spinal malady, of which it seems to be one of the characteristic signs. I have seen it in children a small number of times associated with defective cerebral development. The rigidness was marked and the walk in two cases curious, since the posterior muscles being those most attacked, the poor little lads were nearly pulled over backward at each step. I have also seen cases of spasms of the adductors of the thighs; but, although I have had circumcision done in some cases where the phymosis seemed a possible cause, I have never as yet known the operation to do good. I do not doubt, however, that irritation of the sexual organs is sometimes a source of adductor spasms. There are rare cases of spasms of the legs which seem, as yet, inexplicable, because they do not permit us to ascribe them to any pathological change in cord or brain, but, passing away, leave the patient as free from annoyance as would a light attack of epilepsy. I have seen two such cases, and I have found nothing like them in any of the books.

A lad, æt. 17, thin, but of good color and fair health, was the orphan child of parents both of whom had died of pulmonary tubercle. After exposure to intense heat he was attacked with headache, and before this left him—that is, in forty-eight hours—he began to complain of dull aching in the legs. The next day he was somewhat stiff in moving, and on the day after was unable to walk. At this time I saw him. He had legs so rigid that it was difficult to bend any part of them. When bent it was as difficult to extend them again. Both of these passive movements caused some dull pain. There was hardly any tremor, and neither plantar irritations nor sudden movements caused irregular spasms. Sensation was absolutely perfect, the bladder in good order, the secretions normal, and there was no pain in the back. By slow degrees this remarkable rigidity disappeared, and the boy was well at the close of three weeks. I sought in vain for a cause for this attack. It was possible to exclude every usual source of irritation which might be called on to explain the rigidity as due to excitation of the spinal cord, nor was there the least reason to regard it as a neurosis of psychical origin.

Not less mysterious was the second case, that of Mr. L., æt. 43, a city official, large, sturdy, a full but somewhat regular liver, free from any taint, and of healthy ancestry. He was in his third attack when I saw him in the middle of the night. The previous attacks came on like this one, without warning; that is, he was well in the morning, and in the early afternoon began to suffer pain in the back and legs, with increasing stiffness. Before midnight the disorder was at its height, and had never lasted over thirty hours.

When seen by me the patient was seated in an easy-chair, which he preferred to a bed. He was flushed, sweating immensely, temperature nearly normal, pulse up to 135. The legs were extended and moderately stiff, but the least handling of them caused them to be thrown into intense spasms, during which the belly muscles also contracted, and the legs and feet were extended violently at brief intervals and with agonizing pain, which, as he described it, passed through the whole of the muscular masses of both legs, and between the spasms left him with a dull, aching pain. It was difficult to resist the idea that the man was poisoned with strychnia, but, above the waist, every motion was as usual, while the lower half of the body was in a state of severe tetanus. Under free use of narcotics these strange symptoms were readily relieved, and within sixteen hours entirely disappeared. The cause is to this day as much a mystery as it was at the time I saw him.

I have said nothing here as yet about the treatment of spastic spinal palsy, but I am inclined to state that I have seen more cases of spastic spinal palsy, and of amyotrophic lateral sclerosis which were to a degree amenable to treatment, than I have of posterior scleroses. Perhaps if the symptoms related themselves as definitely to the pathology in the former disease as in the latter disease, I might change my opinion. I do not expect to cure any case of distinctly pronounced sclerosis, but there are ways of helping, and at least of relieving, many of these distressing cases. This is especially the case where the sufferers are poor and have been ill-fed and forced to labor. Then the change to quiet and rest, and the comfort of good rooms, the wholesome, abundant food and tonics, often make an improvement which, however, but too soon reaches its limit. What we have done has been not to lessen the disease, but to improve the rest of the

economy. If a man can throw on to his muscles only a small part of the usual will-force, to improve his tone is to give his centres a greater capacity for evolving power, and his muscles a larger capacity to respond.

In painful cases of spastic paralysis I have found it most comforting to use hypodermic injections of morphia, nor should I fear their use, but would, in pronounced cases of this terrible malady, be quite willing that my patient should form a morphia habit. I have also employed atropia with morphia and alone, and also gelseminum; but although it is possible, with help of the latter drug, to lessen the spasms, this can only be done by doses such as give rise to vertigo; very large doses of bromides may also lessen the spasms. The permanent rigidity is of course distressing, but in some cases it is only the violent clonic spasms which give rise to pain.

Original Communications.

CAUSES OF DEATH IN SURGICAL OPERATIONS.

By A. L. RANNEY, M.D.,

ADJUNCT PROFESSOR OF ANATOMY, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

PART I.

It is my desire in this paper to direct attention to those causes of death which occur during surgical operations, and to study those measures on the part of the surgeon which will tend to modify their severity, or, by preventing their occurrence, decrease the danger to life.

I shall divide these causes of death into: first, those dependent on the *blood-vessels;* second, those dependent on the *nervous system;* and, third, those dependent on the *blood.*

I shall consider, under the first, causes dependent on vessels: 1st. Hemorrhage; 2d. Air in the veins; 3d. Apoplexy; 4th. Embolism.

Under the second, causes dependent on nervous system: 1st. Shock; 2d. Collapse.

Under the third, causes dependent on blood: Anæsthetics.

I proceed first to the discussion of hemorrhage, as the most frequent cause of death during surgical operations.

HEMORRHAGE.

To die of repeated hemorrhages, while perhaps the most painless of deaths, is the most awful. With each succeeding hemorrhage, dissolution is so distinctly intimated, and the patient is so conscious that his strength is fast ebbing, that he clings to life. The most resolute are overcome with an anxiety which they cannot conceal, and look around for some one to delay, at least, the fatal moment.

But if there be a *sudden* hemorrhage from a vessel opened in an operation, or from an aneurism, or from some wound, the arteries of which cannot be discovered, there is *immediate* danger of death to the patient, even while in the hands of the surgeon. Those who have witnessed the agitation of such scenes can best judge of the importance of this subject.

John Bell, in his essay on hemorrhage, though undoubtedly influenced by the defective means of arrest then existing, closes a paragraph with these words: "Were this one danger removed, would not the young surgeon go forward in his profession almost without fear?"

I question if even our present enlightenment has entirely dispersed this element of anxiety.

Hemorrhage is usually classed into three distinct varieties: 1st. *Arterial*, as indicated by a bright red color of the blood and an intermitting flow; 2d. *Venous*, as indicated by a continued flow and darker color; 3d. *Parenchymatous*, as indicated by a *general* oozing from the capillaries of injured surface.

CAUSES PRIMARILY MODIFYING HEMORRHAGE.

The amount of hemorrhage is *modified* at first by the number of vessels wounded and by the smoothness of the *cut* surface.

This latter element is especially important in vessels of large calibre, since an injury with a dull instrument, or the rending of a vessel from violence, leaves the mouth in a condition to offer more or less resistance in itself to the rapid escape of blood, independent of the changes which occur in the coats of the wounded vessel subsequent to its injury.

CAUSES TENDING TO PROLONG HEMORRHAGE.

There are, however, other causes which may modify hemorrhage *later on*, and, by *prolonging* it, tend to greatly increase the danger to life. Under this head I would mention:

1st. *Gravity.*

2d. *High temperature*, whether in the wound or surrounding atmosphere, by delaying coagulation.

3d. *Muscular expiratory efforts*, especially in wounds of the neck.

4th. *Obstruction to a free venous return.*

5th. *Obstructed or delayed contraction of vessels*, as occurring in hepatic hemorrhage; from the teeth; from the nutrient artery of bone; from disease of the vessel; and from atony of vessel.

6th. *Diseases of blood*, preventing coagulation or assisting exudation, as in *vicarious hemorrhage.*

7th. *Congenital anatomical defects* in the construction of vessels. Wilson's case: *Lancet*, 1840; coats only one-half normal thickness. Blagden's case: *Med. Chir. Trans.*, vol. viii., p. 224; transparent coats—died from pulling tooth. Trachsmuth's case—death from ruptured hymen.

PATHOLOGICAL CHANGES DEPENDENT ON HEMORRHAGE.

These changes may properly be grouped under three heads:

1st. Changes in the constituents of the blood.

2d. Changes in the heart's action.

3d. Changes effected in the tissues.

There has been much discussion whether changes in the blood constituents, dependent on injury to tissues, and vessels, are always uniform. I think that in those forms of violence causing marked injury to tissues, that all the steps of an inflammatory process must necessarily occur within the injured tissues, and that the customary blood-changes in inflammatory blood must also *coexist*, provided that sufficient *irritation* has been produced to cause constitutional as well as local symptoms.

But I am by no means certain that in those cases of injury to a vessel, where the tissues are but *slightly* involved and the hemorrhage small in quantity (thus causing little, if any, direct constitutional effect), a markedly altered *blood-condition* is developed, or that increase of the fibrin and albumen could well be verified.

I am inclined to regard "blood-changes," dependent on injury to vessels and tissues, as but a slight

factor in the reparative process which nature sets up unaided; and also to think that the "increased plasticity" of the blood, so much discussed as aiding nature's arrest of hemorrhage, is not only dependent on the amount of irritation produced by the injury on the tissues, but in many cases may be wholly absent.

Not so, however, with those changes in the blood *localized within the wound*, and dependent, not on chemical alteration in its constituents, but rather on mechanical obstruction in the vessel, from the increased *density* of its fluid, resulting from a sluggish current and constant exudation of the plasma.

I do not feel that a lengthy description of the changes in the vessels following an irritant is admissible; but we have, doubtless, all perceived how in the web of a frog's foot, under the glass, are seen, successively, the stage of capillary contraction, of capillary dilatation, resulting in active hyperæmia, and followed subsequently by congestion, stasis, swelling of tissues from exudation of plasma elements, and transudation of white corpuscles.

We know, also, that the red blood-corpuscles, when deprived of the normal amount of plasma by exudation, show an *apparent* increase of adhesiveness and a tendency to pack themselves together like *coin* in bundles.

This *adhesiveness* seems to me, however, a purely local condition and a mechanical result of the escape of the plasma, not attributable to a general blood change or necessarily a *prima facie* evidence of general increase in the fibrin.

We may state then, in summary, without going too deeply into argument, that the changes in the blood, dependent on injury to vessels, are of a *local* and *constitutional* character; that the local conditions are mechanical in their causation, and, therefore, more or less uniform. While the constitutional conditions are dependent on some changes, resulting from irritation at the seat of injury, and are variable, not only in their degree, but even in their actual existence.

We pass to the second set of changes, due to injury of the vessel, viz., "changes occurring in the heart."

II. *Changes in the Heart.*—Immediately upon the opening of a vessel of large calibre constitutional effects appear in direct proportion to the amount of blood lost. These effects are mostly confined to the heart and general circulation. The heart gradually loses its normal power, and becomes accelerated in its action. The arterial tension in the superficial vessels shows rapid diminution, and the pulse changes in volume from its normal character, becoming smaller and even *thready* in cases where the hemorrhage has been alarming.

III. *Changes in the Tissues.*—The third class of pathological conditions, viz., "changes in *tissues*, dependent on injury to vessels," is found to exist in two distinct situations: 1. In coats of the artery themselves; 2. In the tissues about the artery.

When an artery of small size is wounded, we notice frequently that without any form of treatment, not even compression for a short period, the hemorrhage ceases spontaneously and within a very short time. We notice, in the second place, that this spontaneous arrest of hemorrhage is more rapid in some anatomical situations than in others; and, in the third place, that this spontaneous arrest of hemorrhage depends somewhat on the variety and extent of the injury.

To explain the conditions to which these variations are due, and to positively reach the exact changes in tissues on which this spontaneous arrest of hemorrhage depends, has for centuries been a subject of investigation, inquiry, and dispute.

Petit, in 1731, claimed that the arrest was due not to contraction of the vessel, but to the formation of two clots—an outside clot called "*couvercle*," and an inside clot called "*bouchon*."

Morand, in 1736, added changes in the arterial coats.

Kirkland, in 1763, added the effect of decreased heart's action and sustained arterial contraction, but denied the influence of coagula.

John Bell denied contraction and *internal* coagula as a means of arrest, but advocated "infiltration of blood into the cellular tissue."

Jones, in 1805, in his wonderful essay on hemorrhage, by experiments, advanced doctrines which to this day have been little altered.

These changes, as now accepted, are as follows:

1st. A retraction of the whole vessel within its sheath occurs, due to its normal elasticity.

2d. A contraction of the entire coats of the vessel in some cases ensues, causing a conical appearance of the severed end, or, in others, a *curling* of the middle and internal coats into the calibre of the injured vessel is perceived.

3d. The formation of an internal and external coagulum is usually detected, the latter being, however, possibly absent.

4th. "Adhesive inflammation" is now excited between the clot and internal coat, also between the three distinct arterial coats, and often between the external coat and the outside tissues.

5th. Organization of the internal coagulum, with development of blood-vessels within it, and a free anastomosis between them and the neighboring capillaries, completes the process of repair.

Guthrie states that in the *distal* end of an injured vessel these changes are, as a rule, imperfectly performed; that arterial contraction is deficient, and that, for that reason, secondary hemorrhage from the distal end is most common.

A much better explanation of this latter occurrence, to my mind, is based on an anatomical alteration between the proximal and distal extremities of an injured vessel, since, in the latter, the vaso-motor nerves are frequently severed from their direct *ganglionic* attachment; and from *defective nervous* influence, reparative processes are either delayed or imperfectly performed.

SYMPTOMS DUE TO HEMORRHAGE.

When a patient expires suddenly from the impetuous bleeding of some large artery, from a ruptured aneurism or wounded viscera, the face at once becomes deadly pale, a dark circle round the eyes is perceived, the lips change to a blackish hue, and the extremities become rapidly cold. The patient faints, revives but to be conscious of his danger, and faints again. The voice is lost; there is an anxious and incessant tossing of the arms, with that restlessness which is the sign of the approaching end. The head is suddenly raised, gasping as it were for breath, with inexpressible anxiety depicted on the countenance. The tossing of the limbs continues; convulsive sighs are drawn; the pulse flutters, intermits from time to time, and the patient expires.

The countenance is not of a transparent paleness, but of that clayey and leaden color which the painter represents in assassinations and battles; and this tossing of the limbs, which is commonly represented as the sign of a fatal wound, is indeed so infallible a sign of death, that I have never known any one to recover who had fallen into this condition.

Treatment.—In the early centuries, when hemor-

rhage was with difficulty controlled, and the percentage of mortality from this source enormous, superstition frequently accompanied the defective surgical means at that time in vogue. Thus we find Wolffius, Senertus, Michael Mercates, and Gottfried Maebius, in the sixteenth century, extolling the application of TOADS behind the ear and in the arm-pits, as a means of arresting hemorrhage.

Plunging bleeding members into the abdomen of a living fowl had its adherents. The use of hot magnetic ore, boiling oil of turpentine, vitriol, and corrosive sublimate were also among the cruel practices of the day. The actual cautery can be found described as early as Galen. Albucasis, in his work on surgery, devotes fifty-eight chapters to the cautery and its uses. All possible designs and shapes were wrought from iron to meet the various emergencies, and plates of them published, and the special advantages of each extolled. Red-hot knives were first suggested by "Fabricius Ab Aquapendente" as a valuable improvement on former customs for the *immediate* arrest of hemorrhages during amputation.

In the reign of Henry IV., Ambrose Paré first advocated ligature, with rules and directions not unlike those of the present day; but for a century it was used with great caution, and met with much disfavor.

Petit, in 1730, urged a compress and bandage at the stump to modify the *shape of the clot*, and invented the tourniquet, known by his name. In 1732 Petit's experiments of the effect of astringents on mutton were made in his endeavor to discover artificial means to *harden* the clot within a stump by local applications.

Pouteau, soon after, advocated the ligature of *nerves* with the vessel to stimulate the swelling of tissues, and thus cause compression of the vessel. Subsequently torsion became developed by Amussat, Velpeau, and Thierry. Ligature and its mechanism have been fully explained by Jones. Tourniquets have been modified and improved by Signorini, Skey, and hosts of others, and the study of collateral circulation investigated to a high degree of perfection by Mannoir, Porta, and Stilling.

Transfusion has also been added, of the literature of which Blundell's Essay probably best deserves mention. Acupressure, devised by Simpson in 1859, has proved also a valuable contribution to this branch of surgical investigation.

To recapitulate, then, we have as surgical means of arrest:

1st. *Tourniquet* (a temporary measure): Petit's, Signorini's, Skey's Horse-shoe, and others.

2d. *Styptics:* 1. Cold used in cavities or to allay general oozing. 2. Ferri persulph. 3. Gallic acid. 4. Matico. 5. Alum. 6. Argent. nitratis.

3d. *Ligature:* Paré, Jones.

4th. *Torsion:* Galen, Amussat, Velpeau, Thierry. It is now decided that four complete turns are required to occlude the calibre of a vessel.

5th. *Acupressure.*

6th. *Cauterization.*

7th. *Transfusion of blood.*

I close the subject of hemorrhage by enumerating certain general rules of treatment, which seem to me to meet all possible indications.

1st. Always *ligate* the bleeding vessel, in moderate hemorrhage, when convenient to do so; the form of ligature used depending on the choice of the operator.

2d. Use compression over the wound on the *main trunk*, in moderate hemorrhage, when ligature of the wounded artery is inconvenient.

3d. In *violent* hemorrhage enlarge the wound and tie the artery.

4th. As a *rule*, never attempt ligation except when bleeding *actually exists.*

The exceptions to this rule are: 1. In *exposed* vessels of large calibre demanding ligature as a safety measure. 2. In delirium tremens following an injury. 3. When necessity for transportation exists.

5th. Ligature should, as a rule, be applied *at the bleeding point*, and not remote from it.

The reasons for this general statement being: 1. That collateral circulation may otherwise keep up the hemorrhage. 2. The bleeding vessel may not be the main trunk. 3. There exists in certain localities additional danger as you approach the heart. 4. Gangrene is liable to occur, in case subsequent ligature of the wound shall be required.

6th. Use the *external wound* as a *guide* to your incision to reach the vessel—except when the wound exists on the side opposite to the vessel injured, when a probe may be cut down upon.

7th. Always use the greatest precaution to avoid needless loss of blood in reaching the vessel, until the finger can compress it.

8th. The artery, when found, should be tied above and below the wounded portion, and at a bifurcation THREE ligatures should be used.

In case the lower end cannot be discovered, use *compression* in the wound as a substitute for ligature.

9th. A ligature should not be placed close below a large branch.

10th. In *recurring* hemorrhages the treatment should depend on the *color* of the blood and on the severity of the hemorrhage.

If the hemorrhage springs from the proximal end of the artery: 1. Tie, if possible. 2. Amputate, if necessary. 3. Use styptics and compression, if both are impossible.

11th. *Amputation* is preferable to ligature: 1. When great swelling of the limb renders ligation difficult. 2. When exhaustion of the patient forbids further search for the vessel. 3. When *competent assistance* is needed and not attainable.

12th. In case a large vessel is injured, without actual hemorrhage, heat and flannels to the limb are indicated as a *preventive* measure.

13th. In case an aneurism is the seat of hemorrhage—provided the aneurism is *traumatic* in its origin—it should be treated on the same principles as if it were a wounded artery.

(To be continued.)

FOREIGN BODY IN THE INTESTINES—OPERATION AND RECOVERY.

BY J. C. McKEE, M.D., U.S.A.

JOEL H. TUDOR, American, æt. 28; occupation, laborer and amalgamator at "Tip Top" Silver Mine; height, 5 feet 10 inches; weight, 185 lbs.; of a strong and muscular frame.

History.—On January 15, 1879, was performing a customary sleight-of-hand trick with a piece of copper wire about three inches in length, held in one of his hands, and which, by rapid manipulation, was made to mysteriously disappear; the lookers-on betting freely that it would be found up one of his shirt-sleeves or elsewhere. He had performed the trick so often as doubtless to have become careless as to the distance the wire was inserted or pushed into the nostril, at the same time being ignorant of the close and continuous connection between the nasal cavity and the throat or pharynx. This time, after having his

shirt-sleeves, etc., searched, and, in order to show the spectators where the wire really was, he probably threw his head back further than usual, when it gravitated, fell back into the pharynx, and passed into the stomach.

In the absence of medical advice, he at once took an ordinary store bottle of castor oil, in hopes that the wire would be safely carried through the intestinal canal. No pain in the stomach followed, and he worked steadily until the 15th of March, a period of two months, when he was idle a couple of days, owing to the mill shutting down for repairs. He was then seized with an acute pain on the right side of the abdomen, about three inches from the umbilicus. On the 16th he started in an ambulance for Prescott Barracks, distant sixty-five or seventy miles, where he arrived on the evening of the 17th. During the journey he suffered great pain from the jolting of the vehicle. A hypodermic of Magendie's solution of morphia, ℥x., gave him relief and rest. He pointed out and covered with the end of his finger a tender spot about three inches to the right and below the umbilicus. No tumor or lump was then perceptible. A slight cathartic was given him, and strict rest in bed enjoined. A lump or tumor then gradually formed, becoming more and more defined and more and more tender to the touch in the spot he first pointed out. Pulse and temperature were normal. The man insisted that the wire had lodged at this point, and the sequel proved that he was correct.

Operation.—The case from its surroundings was calculated to arouse deep sympathy and anxious solicitude as to the result. The operation was freely discussed pro and con, and Mr. Tudor being a fair type of the independent frontiersman, endowed with good common sense, determined that an operation was the only thing to look forward to for permanent relief, and insisted on its performance as soon as possible. Accordingly, on the 4th of May, all preparations having been made, the following operation was performed under Lister's antiseptic process: the surface of the abdomen over the tender spot and tumor was carefully shaved and then sponged with ether. The tender spot was located and marked by a cross scratch on the skin. The patient was etherized, and an incision about three inches in length was made through the skin, three and one-half inches to the right of the umbilicus, parallel to the border of the rectus and in the direction of the linea semilunaris. As the operation advanced it was found that the integuments and muscles were closely adherent and coalesced with each other, no doubt from sympathetic inflammation with the internal lesion, necessitating constant and great caution in the use of the knife and requiring the diligent use of the director, as the suspected spot was approached. The incision had now to be made an inch longer, in order to give more working room. It was reasonable to suppose from the condition of the integuments, that there had been sufficient exudation of plastic lymph around the foreign body to cause adhesions, not only around where it may have penetrated the intestine, but that adhesions had been made with the opposite peritoneal walls. As near as could be judged from the result, this proved to be correct. The wire gradually became more and more defined as the tissues yielded in the gradual approach. At this step in the operation it was considered best to find out if any abscess had formed, and the fine point of an hypodermic syringe was passed into the tumor. Nothing but serum filled the cylinder.

The hemorrhage was insignificant, and readily controlled without ligatures. It was, I think, wisely determined not to incur the risk of opening the peritoneal cavity, but to depend upon the supposed (now almost confirmed) fact of adhesions existing between the intestines and the opposite peritoneal wall. The middle of the wire was at length seized with a pair of forceps; another pair was also applied, so that when the wire was divided between them by heavy cutting-forceps, each end was readily extracted from its bed. The wire proved to be of copper, $2\frac{15}{16}$ inches in length, No. 14 American, or No. 16 Birmingham measure. The hemorrhage having stopped, a drainage-tube was laid at the bottom of and whole length of the incision.

Silver-wire sutures to the number of three were passed through the muscles and integuments, bringing the edges close together. Three others were passed through the skin only. Antiseptic dressings were carefully applied, and firmly secured by frequent turns of bandages around the body. Fifteen minims of Magendie's solution were given hypodermically, and the patient removed to his bed. In the evening at nine o'clock he was resting comfortably. On being aroused, he recognized me, and asked about the wire. On being told that it had been found and removed, that it would not trouble him any more, he expressed an opinion about it more forcible than polite, and again relapsed into sleep.

The patient's rapid progress to recovery after the operation was very gratifying and satisfactory. The following night he was seized with a severe pain in the small of the back, for which p. opii., gr. ii., was administered with relief. A profuse perspiration, with flushed face, followed on May 6th. Both were easily controlled by the hypodermic injection of Magendie's sol., ℥x., given at required and necessary intervals. Valentine's meat juice, ʒ j., diluted, was given every four or six hours. Thermometrical observations were taken every four hours; and at no time did the thermometer show a higher range than $100\frac{3}{5}°$. Pulse averaged 112; respiration, 36. At 9 A.M. of the 6th the dressings were removed and examined under the spray. The wound looked very favorable. The dressings were reapplied. At 12.30 A.M. of the 8th, the temperature was 98°; pulse, 98; respiration, 32. Beef essence was now given every two hours. On the 9th, was allowed egg and milk. On the 10th, the wound was redressed under the spray. Not a drop of pus was to be seen; dressings were clean and sweet. The drainage tube was removed. On the 13th, eight days after the operation, the sutures were removed under the spray. Union had taken place the whole length of the wound. Salicylated cotton, secured by a bandage, was applied, and ol. ricini, ʒ j. given, with the effect of bringing away a great quantity of fæces. From this time he made rapid progress to recovery. On the 19th, all dressings were removed, and he was allowed to sit up and walk around the ward and the hospital.

PRESCOTT BARRACKS, PRESCOTT, A. T., May, 1879.

EXCESSIVE LOCHIA.—Dr. Hugh Miller, of Glasgow, recommends the following in excessive lochial discharge accompanied by a relaxed condition of the uterus:

℞. Quin. sulph.	℈ ss.
Acid. hydrobrom.	f ʒ vj.
Aquæ font. q. s., ad	f ℥ ij.

M.

Sig.—Teaspoonful three times daily.

Progress of Medical Science.

Extirpation of the Larynx.—The entire history of the interesting case in which Dr. Foulis, of Glasgow, removed the larynx, has never been published. It appears that at the time of the operation there was pulmonary disease, though in abeyance. After the third operation, the patient was admitted by his former employer to work as telegraph clerk, and for eleven months was able to keep at his post, wearing the artificial larynx night and day. Toward the end of the year, however, he noticed "occasional streaks of blood in the mucus," and the lower edge of the wound in the neck became slightly excoriated, probably from the downward pressure of the tube. On Christmas-day he was carefully examined, and was found to have advanced pulmonary difficulty, "the apices of both lungs being dull to percussion, and giving a prolonged hollow expiration-sound," "while the cough, the hæmoptysis, and the night-sweating were worse than ever before." The interior of the trachea showed extensive ulceration, presumed to be tubercular. He died March 1st, 1879. No post-mortem examination was permitted. The conclusions derived from the case are favorable, according to the operator, who intimates that the extension of a malignant disease was arrested, the patient dying of an old constitutional difficulty. He enjoyed a year of useful and comfortable existence, living, in all, seventeen and a half months after the operation, surviving it a longer period than any similar case, so far as is at present known.—*Lancet*, March 29, 1879.

Mahomed on Bright's Disease.—An interesting study of the Records in Guy's Hospital, London, by the medical registrar, Dr. Mahomed, have led him to the following conclusions with reference to the important points now at issue in the history of Bright's disease:

1. Albuminuria, though occasionally produced by other causes, is generally the result of increased pressure in the capillaries of the kidney, either venous or arterial.

2. Neither albuminuria nor dropsy are usually present in chronic Bright's disease; when present they indicate acute or epithelial changes.

3. The blood-condition which produces the high arterial pressure of Bright's disease is the primary condition, and is not secondary to deficient renal excretion, as held by Bright himself and subsequently by nearly every authority upon the subject.

4. The most generally accepted account of the disease and its symptoms fail to recognize it in by far the larger number of cases in which it exists.

5. Cases present themselves bearing the aspects of various form of heart disease, of bronchitis, of cirrhosis, of cerebral disease, and many other conditions, in which we can only discover the existence of chronic Bright's disease, as the *fons et origo mali*, by the signs of high pressure in the arterial system.

6. The cardio-vascular changes, when found alone, may be taken as evidence of the existence of the disease.

7. Similar changes to those found in the kidneys exist also in the mucous membranes, in the skin, and in other parts.

8. The condition of high pressure is almost constantly present in old age, and, in one form or other, brings about a large proportion of the deaths in persons over fifty.

9. The existence of high arterial pressure in the pulse of young persons indicates a diathesis, and is of grave importance.

10. The same condition, being of frequent occurrence, after the age of fifty, is not of such great importance unless present to an excessive degree; it then produces serious symptoms, and calls for active treatment.

Some of these propositions have already been enunciated by Gull and Sutton, though they have not met with general acceptance. It is plain that the root of the matter has not been reached as yet.—*Lancet*, March 29, 1878.

Section of the Epiglottis.—Dr. William Porter, of St. Louis, alluding to the recorded cases in which portions, if not the whole, of the epiglottis, has been severed, either by accident or disease, records three cases of his own, in one of which he removed three-fourths of the organ for a neoplasm. The main disturbance in such cases seems to be in phonation; the vowel sounds "a" and "e" are less distinct, and the voice harsh if the cartilage is irregular and jagged. Deglutition, on the other hand, becomes easy after a time, for the base of the tongue may so cover the larynx, and the muscles and mucous folds so close it, that the loss of the organ is largely compensated for. Usually, when ulceration sets in, the process of destruction is so slow that the parts gradually accustom themselves to the loss. After an accident, as when Murat lost a portion of the epiglottis from a musket-ball, it may be necessary to introduce an elastic tube into the stomach as an artificial aid. Dr. Porter did not find this necessary in his case, which was as follows: for some five months there had been difficulty in swallowing, with laryngeal pain and cough. On laryngoscopic examination a large nodule was found occupying three-fourths of the free edge of the organ. After some weeks of local treatment, which accomplished nothing, the diseased mass, including fully one half of the epiglottis, was severed. Semi-solid food was then ordered, but no artificial aid was resorted to, as the long-continued disease of the part had accustomed the patient to supply its loss. The wound healed in a fortnight, and there has been little functional disturbance. The following conclusions are given: if a benign growth of the epiglottis exist, or there is malignant disease which has not as yet implicated the surrounding parts, removal of the epiglottis, or such a part of it as is involved, is practicable and justifiable.—*American Journal of the Medical Sciences, April*, 1879.

Dextro-quinine as an Anti-periodic.—Dr. C. O. Dunlap, of Chillicothe, Ohio, has had some experience with dextro-quinine, used as a substitute for the sulphate. He has tried it in fifteen cases, and in all with success. His dose was dextro-quinine, gr. v., and ext. aconit. rad., gr. ½, repeated every two hours during the night. He thinks that the amount of the medicine need not be larger than of the sulphate, and he has never known it to produce ringing in the ears. His section of the country, being highly malarious, has furnished him an excellent opportunity for testing it, and he states that with it may be obtained "all the good results of the sulphate of quinine with none of the objectionable features of the latter."—*New Orleans Med. and Surg. Journal—Ohio Med. Rep.*

Malarial Fever.—An interesting treatment for malarial fever is reported from Mount Sinai Hospital. Quinine, Fowler's solution, Warburg's tincture, eucalyptus, chloroform, whiskey, had all proved unavailing, when the patient was transferred from the lower to the upper floor. Thirteen days afterwards there had been no relapse.—*New York Medical Journal*, April.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, June 28, 1879.

THE OBSTETRIC FORCEPS.

A DECIDEDLY noteworthy debate recently took place at the London Obstetrical Society. The subject of discussion was the obstetric forceps, and the promised interest in the matter gathered not only the leading obstetricians of London, but also representatives from Dublin, Edinburgh, and many of the provincial towns of England. Dr. Robert Barnes opened the debate, and presented the subject in an admirably clear and scientific manner.

The forceps is an instrument that represents in great perfection the vagaries of the obstetrical mind and the ups and downs of surgical fashion. Even now, according to the idiosyncrasy of its particular owner, it lies in neglect and rust, or exhibits the sleekness that comes of daily application. The indications for its use, to be sure, are much more definite than formerly; still they are far from being peaceably agreed upon, and the conclusions reached by so many experienced men in the present debate may well be regarded with interest.

At the outset the question was much narrowed down and simplified by the assumption that the use of forceps in lingering labor only need be discussed, thus excluding such complications as convulsions, hemorrhage, syncope, prolapse of the cord. It was further premised that, in attempting to draw conclusions the comparison should be made between the results of the use of the forceps and its alternatives, including in the latter expectancy, oxytocics, manipulation of the uterus, and other measures.

In considering the value of the forceps, the question divides itself again into its use in low operations, when the head is in the inferior strait, and in high operations, when the head is seized at or above the brim. In the former case the parts are almost always dilated, and there is need only of a little more *vis a tergo* for the expulsion. We may then employ either ergot, the forceps, or simple expectancy. The superior advantages of the forceps in such cases was universally conceded by those who took part in the discussion, and their decision was undoubtedly the correct one. If skilfully done—and we must base our rules upon the supposition of sufficient skill—it saves the mother much unnecessary pain, lessens the likelihood of still-birth, and last, though perhaps not always least, it saves time and inconvenience to the physician. It is in this field especially that the forceps deserves to become more popular, and the unanimous opinion of the Society on the point will doubtless have a beneficial effect. It is here, to be sure, where much of the abuse of forceps has crept in, but an operation essentially good does not deserve to be condemned on account of the liability to frequent and careless indulgence.

The principal point, however, of the discussion was in regard to the use of forceps in lingering labor when the head is at or above the brim. And here too, although there was a great deal said in developing the matter, the conclusions were tolerably unanimous. As given by Dr. Barnes, they were essentially that when in lingering labor the head is in the pelvic cavity or engaged in the pelvic brim, and it is known that there is no deformity, the forceps is better than its alternatives. Further, in lingering labor, when the head is resting on the pelvic brim, the liquor amnii being discharged, and there is slight or no disproportion, even though the cervix uteri be not dilated, the forceps is generally better than its alternatives. In proportion as the head is arrested high in the pelvis, in the brim or above the brim, the necessity, utility, and safety of forceps become less urgent. The propriety of applying forceps when the os is not dilated is the thing to be most seriously considered; but if at the time of such application the os is dilatable, it seems to be conceded that the operation is justifiable and even imperative. An analysis of the cases of Dr. George Johnston, who has been the prominent advocate for the use of the forceps in the high operation, shows that the danger is in direct proportion to the small size of the os.

Of course, as the outcome of such a discussion, we look for some new "rules for the use of the forceps." The wisdom of the Society was shown in its cautious avoidance of such committals.

One person, however, ventured the sufficiently broad assertion that the physician should never use the forceps to save his own time, and never allow the patient, if the parts are dilated, to suffer a tedious and painful labor when the forceps can relieve her.

The conclusions above indicated essentially harmonize, we believe, with the views entertained by the best obstetricians on this side of the Atlantic. They will do much to give a more definite field to the forceps, and moderate the impassioned rhetoric that is

still, in the name of meddlesome midwifery, poured upon that useful instrument.

In reading the discussion, however, it is impossible not to notice and regret one serious defect in the statistical method by which the conclusions were to a large extent worked out. Thus the statistics for and against the forceps bore almost exclusively upon the life of the mother and the child. But this is not enough; for, the subsequent condition of health or invalidism should also be taken into account. It counts for but little to say that the mother lived, if she lived with the parturient passage torn, with local inflammations or displacements; nor should the occasional injuries to the child fail to be considered. These points were brought up in the discussion, but not in the statistics, and until we have accurate data concerning such results, the frequency and extent of the use of the obstetric forceps will very properly continue a question open to much discussion. The opinion expressed upon this subject by Dr. T. Addis Emmet, of this city, is too important to be omitted, namely, that skilful instrumental delivery has rarely, if ever, any agency in the production of vesico-vaginal fistula, and that the direct cause of this accident is always the delay in delivery after impaction has taken place.

MEMORIAL TABLET.

We direct attention to a request made by the committee appointed at the last meeting of the State Medical Society, to obtain the names of medical men in this State who lost their lives in the discharge of professional duties. Some years ago a memorial tablet was erected by the Medical Society of the County of New York, to those who died of ship-fever at Quarantine Hospital, and the proposition now is to make a memorial roll to be published in the Annual Transactions of the State Medical Society. We hope all will respond to the request of the committee.

REPORTS OF STATE MEDICAL SOCIETIES.

The first in our series of reports from State Medical Societies was from Illinois, which held its annual meeting at the city of Lincoln, beginning May 20th. The usual number of papers in the various departments of medicine were read, and embraced subjects of practical interest. A report from a special committee with regard to expert evidence was presented, and additional steps taken looking towards asking the necessary legislation to secure adequate compensation for physicians who are compelled to make investigations and testify in courts of law. We hope the society will succeed in this direction.

The Medical Society of the State of Pennsylvania held its annual meeting in the city of Chester, beginning May 21. That body is evidently in good working order. The papers read were numerous, and many of them were of a high degree of excellence. Some important questions were discussed, and a slight amount of gratuitous advice given to medical journals. The question of the appointment of female insane asylum superintendents was again brought up, and secured the indorsement of the society by a rather meagre majority. The unpleasant feature of the proposed law is the clause, making the appointment of such superintendents obligatory. The important question of expert testimony did not reach a tangible form.

The Medical Society of the State of New Jersey held its one hundred and thirteenth annual meeting, at Englewood, beginning May 27th. The report of the standing committee is an important item in the transactions of the society, and this year embraced a résumé of the subject of epidemics, new remedies, and a report on necrology. Besides this report, the usual number of papers were read, and the meeting, on the whole, was a success.

The Connecticut Medical Society held its annual session in the city of Hartford, beginning May 28th. Its proceedings were characterized by the usual activity and interest. The proposed law to rid the State of medical tramps was so full of complications and vagaries that it failed to receive the support of the society. Exactly how a person can be prevented from lecturing upon any subject he may choose, providing he can obtain an audience and does his work in decency and in order, unless it be by mob interference, has yet to be determined. A committee was appointed to report upon the practicability of the metric system.

The Ohio State Medical Society held its annual meeting in the city of Columbus, beginning June 3d. Its proceedings were usually harmonious. Several valuable papers were read, and the metric system received an unmistakable rejection. The discussion was animated, and the result will, doubtless, in time, be reversed. The society adopted a commendable resolution, requesting Congress to abolish the duty on quinine.

The Arkansas State Medical Society held its annual meeting in the city of Little Rock, beginning May 14th. A State board of health was appointed, which was a step in the right direction. An interesting report upon yellow fever was made by Dr. Jennings, and reference made to some noteworthy facts in connection with the transmission of that disease.

The Massachusetts Medical Society held its annual meeting in Boston, beginning June 10th. A number of interesting papers were read, and, in the president's address, special reference was made to the question of admission of women to medical schools and the co-education of the sexes. Theoretically, it is well; but practically, it is unpleasant, if not unwise.

The Rhode Island Medical Society held its annual meeting in the city of Providence, June 10th, and we

are pleased to learn that the general interest in its welfare is increasing. The president's address was an important feature of the proceedings, and was devoted to the temperance question from a medical standpoint. The use of alcohol is proper, but its abuse leads to disastrous results. Whether the abuse and the use are not so intimately related as to render them permanent associates has been a mooted question for a long time. We incline to the opinion that the one does not necessarily follow upon the other.

The Michigan State Medical Society held its annual meeting in the city of Detroit, beginning May 14th. The proceedings were, as usual, interesting, and at times especially lively. The general results obtained seemed to be satisfactory, although the society rather unceremoniously sat down upon the metric system, not even giving it the benefit of a prolonged discussion.

CLOSE OF VOL. XV.

In closing the fifteenth volume of the Record, we take occasion to express our obligations to our large list of contributors and to the members of the editorial staff for the substantial aid which they have rendered. The change in size of the journal has, we trust, added to its value, in not only giving us an opportunity for publishing lengthy papers, but in enabling us to grant greater facilities for the expression of honest opinion in the departments of reviews, reports of societies, correspondence, and new instruments. The character of the contributions which have appeared in our columns need no special notice from us, for they have been largely from men extensively and favorably known in the profession, and whose names are a sufficient guarantee for the excellence of the productions. Our working corps remains substantially unchanged, and it shall be our continued aim to increase the usefulness of the journal, at the same time adapt it to the general wants of the profession, and to make it even more acceptable to our subscribers.

In the editorial discussion of the medical topics of the day it has been our endeavor to be impartial and truthful, and if we have erred in judgment it is a failing that is human.

In order to furnish the required amount of space for accumulated reviews, society reports, and correspondence, our last number was largely devoted to these departments. With the present number we resume the publication of original lectures and other material which, for reasons already given, have been delayed.

Irritable Bladder.—Dr. Piffard, of this city, speaks favorably (*Chicago Med. Jour. and Exam.*) of a tincture of "shepherd's purse" (*capella bursa pastoris*) in this affection. Ten to thirty drops of tinct. thlaspi, as it is called and sold at homœopathic pharmacies, several times a day, he has found to act satisfactorily.

Reviews and Notices of Books.

A Practical Treatise on Surgical Diagnosis, Designed as a Manual for Practitioners and Students. By Ambrose L. Ranney, M.D., Adjunct Professor of Anatomy and Lecturer on Minor Surgery in the Medical Department of the University of New York. William Wood & Co., 27 Great Jones St., 1879, pp. 386.

In order to judge of the value of a book it is well to ascertain the object the author had in view in its preparation, and then to see how far it fills the place for which it was intended. The author states in his introduction that the volume was published at the request of his private class, and adds: "As a text-book for students it will, I trust, aid memory by presenting the symptoms of disease in *marked contrast;* while, to the practising physician, it may prove a book of easy reference when questions of diagnosis arise leading towards doubt or error." It is intended then, first, for students to aid memory; secondly, for busy practitioners as a book of reference.

The book is divided into eight parts: I. Diseases of the Blood-vessels; II. Diseases of the Joints; III. Diseases of Bone; IV. Dislocations; V. Fractures; VI. Diseases of the Male Genitals; VII. Diseases of the Abdominal Cavity; VIII. Diseases of Tissue.

The diseases to be differentiated are arranged in two columns down the page, "so as to allow the symptom of each to be reviewed separately by reading from above downward, while by reading across the page the points of contrast become prominent."

One of the first requisites of such a book is accuracy, and secondly, clearness of description. The chapters on diseases of the male genitals, fractures and dislocations, are the best, while those on diseases of joints and bones contain too many errors. Thus, on page 34 the compiler states that the "constitutional disturbance in synovitis is slight." This may be true in a certain sense of the sub-acute variety, but it is certainly not so of the acute. Bryant states that "the constitutional disturbance is very great." On page 42 he states that "dislocation (of the head of the femur) is frequent in the femoral variety of hip-joint disease, and that dislocation into the pelvic cavity often occurs in the acetabular variety." It is a well-known fact that a true dislocation of the femur in hip-joint disease is rare, and that perforation of the acetabulum by the head of the bone is *very uncommon.*

The symptoms of sacro-iliac disease given are very faulty, and but little aid in diagnosis can be gained from their study.

On page 54 it is stated, in differentiating morbus coxarius from infantile paralysis, "that in the former a history of injury followed by pain in the knee, etc., is present:" in the latter, "a history of gradual loss of muscular power is present." The access of paralysis is *always* sudden in infantile paralysis, and "a gradual loss of muscular power" would exclude this disease. He makes no mention of acute periostitis, nor of disease of joints beginning in the bone. He states that "rickets does not tend to shorten life."

He lays down the rule that there is no discharge in stricture of the rectum. This may be true before ulceration has taken place. Allingham, however, states "that stricture of the rectum without ulceration is a somewhat uncommon affection." There are many other passages we had marked, but space will not allow of their reference. As a book for students "to aid memory," it cannot take the place of systematic reading,

in that it encourages them to trust to their memories without a clear understanding of the subject. With "cram-books" the archives of our libraries are already too well filled. As an aid to the general practitioner it is too condensed and contains too many errors, with only the more common symptoms of diseases to give the satisfaction obtained by consulting a more complete treatise. In regard to the chapters on dislocations and fractures, more efficient aid in diagnosis can be obtained from Hamilton's work. The chapter chiefly useful to the general practitioner is that on diseases of the male genitals. For the purposes for which the book was prepared it seems to us it has not reached the standard required. The type is large and clear, and the general appearance of the book reflects credit upon its publishers.

TRANSACTIONS OF THE AMERICAN GYNECOLOGICAL SOCIETY. Vol. III. For the year 1878. Boston: Houghton, Osgood & Co. The Riverside Press, Cambridge. 1879.

By a series of happy coincidences the third volume of the Transactions of the American Gynecological Society has finally made its appearance. It is now new, and when Dr. Goodell, of Philadelphia, reads his admirable address "On the Relation of Neurasthenia to Diseases of the Womb," he will recognize one of his ancient productions, full of careful study and suggestion. When Dr. J. C. Reeve, of Dayton, Ohio, scans his paper "On Rupture of the Perinæum without Implication of the Vulva," he can have opportunity to say, "This occurred once, but it was so long ago that much might be added now." When Dr. J. Marion Sims reviews his exhaustive paper "On the Surgical Treatment of Stenosis of the Cervix Uteri," he will be pleased to know that the dust has finally been shaken from his proof-sheets; and Dr. James P. White will rejoice that his interesting paper "On Extra-Uterine Pregnacy, with Discharge of Fœtal Bones through the Bladder," has been delivered with safety, as well as his patient.

"The Necessity for *Early* Delivery, as Demonstrated by the Analysis of 161 Cases of Vesico-Vaginal Fistula," a paper read by Dr. T. Addis Emmet, of New York, retains its original excellence, notwithstanding its substantial appearance in his work on gynecology, issued several months ago.

Drs. H. P. C. Wilson, of Baltimore, and R. A. F. Penrose, of Philadelphia, we fear have had reason to regret the loss of life that may have occurred from a lack of the practical suggestions given in their respective papers "On the Treatment of Post-Partum Hemorrhage."

Besides the papers referred to, there are *thirteen* written by such representative men as Drs. J. T. Johnson and S. C. Busey, of Washington, D. C.; W. H. Byford, of Chicago; W. L. Richardson, of Boston; H. J. Garrigues, of New York; A. H. Smith, of Philadelphia; H. F. Campbell, of Ga.; T. Parvin, of Indianapolis; I. E. Taylor, of New York; E. Van de Warker, of Syracuse, N. Y.; A. Reeves Jackson, of Chicago, and Nathan Bozeman, of New York.

The volume contains a memorial of Edmund Randolph Peaslee, M.D., LL.D., with portrait, by Fordyce Barker, M.D., LL.D., of New York; also a memorial of Washington Lemuel Atlee, M.D., with portrait, by Dr. T. M. Dreschfeld, of Philadelphia.

There has been no change either in type or paper, but a worthy improvement in binding has been made, and to the volume proper has been added an "Index of Obstetric and Gynecological Literature of all Countries for the Year 1877." The latter is the work of the Secretary, Dr. James R. Chadwick, of Boston, with the co-operation of Dr. J. S. Billings, U.S.A., in charge of the National Medical Library at Washington, and is an important and valuable addition, that reflects high credit upon the authors.

The present volume maintains the established high standing of the American Gynecological Society, and although its lustre is slightly dimmed by age, its original worth entitles it to a prominent place in the library of every obstetrician and gynecologist.

Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY.

Held in Boston, June 10 and 11, 1879.

Special Report for THE MEDICAL RECORD.

THE Annual Meeting of the Massachusetts Medical Society was held in the Horticultural Hall, Boston, on Tuesday and Wednesday, June 10 and 11, 1879.

The President, DR. GEORGE H. LYMAN, called the meeting to order at noon on Tuesday, and the reading of papers was begun.

CASES OF INSANITY FOLLOWING ACUTE DISEASES.

This paper was read by DR. JAMES B. AYER, of Boston. He reported briefly two cases of pneumonia, in which, after the crisis had passed, acute maniacal symptoms supervened. In one they subsided in the course of two days; but in the second, now at the end of twelve weeks, there was marked improvement in the physical condition of the patient, but in regard to her mental condition the prognosis was uncertain. The cases reported were typical cases of insanity following and caused by an acute disease, which had poisoned the blood and exhausted the patient. Such cases could never be mistaken for delirium. The reader then discussed the difference between mania and delirium. Whether or no there was a specific difference, there was a well-marked clinical distinction between them. The transitory form of post-febrile insanity was rare, but cases of the more grave character were found in all asylums for the insane. He reported statistics which he had collected regarding the frequency of cases of post-febrile insanity as compared with other cases committed to asylums, and in conclusion stated that we could not too carefully watch the convalescence of our patients recovering from acute diseases, remembering that insanity might follow the mildest cases, and that it very frequently appeared in advanced convalescence, when the patient was considered nearly well.

In the discussion following the reading of Dr. Ayer's paper one Fellow reported that he had seen one case of acute insanity follow typhoid fever during convalescence. It recovered after residence in an asylum. Another case following mild acute pneumonia died within a week.

Another Fellow remarked that the pathological condition in such cases was probably due to bad nutrition and cerebral anæmia.

A paper on

THE PHYSICIAN'S TRUE POSITION IN SOCIETY

was read by DR. ROLLIN C. WARD of Northfield.

INTESTINAL CATARRH OF INFANTS

was the subject of a paper by DR. GEORGE K. SANBORN of Brookline. He stated that many of the deaths

which were reported as resulting from cholera infantum were erroneously classed under that head. The name should be confined to those cases which ran a very rapid course, and in that and many other respects resembled true cholera. Its causation and character were described. The affection commonly termed simple diarrhœa was referred to; it was a simple catarrh of the intestines, the usual beginning of all the other diarrhœal diseases. The cause of the trouble might frequently be seen in the stools to be in the form of particles of undigested food. A more serious condition was that in which the intestinal follicles were more or less ulcerated. Improper food, given at improper times and intervals, an elevated temperature, impure air, and all those conditions which go to make up bad hygienic surroundings, were given as causes, and the most important points to be attended to in the treatment was of course to strive to remove those causes. As to food, if the child had been recently weaned let it be again nursed, if practicable. If not, the most appropriate food was cow's milk. A little bicarbonate of soda or of potassa added to the milk would aid in preventing the casein from coagulating in too large lumps. The soda was perhaps preferable, and half a drachm dissolved in four ounces of water, and a teaspoonful of the solution added to each bottle of milk, would often prevent serious trouble. It helped to prevent constipation.

An excellent artificial food for infants was that recommended by Dr. Channing of Providence, R. I., which consisted of equal parts of cream and water, with the addition of a little glycerine and lime-water.

In medication brandy stood first on the list. It stimulated the digestion, and, above all, allayed the pain. It might be given in doses of from five to fifteen drops in water (without sugar), once in two hours. The subcarbonate or subnitrate of bismuth, in doses of not less than ten grains, was also a valuable remedy. Opiates should be avoided if possible. The custom of giving young infants castor oil, calomel, or any other cathartic, especially after the trouble has fairly commenced, could not be too severely condemned.

An animated discussion followed the reading of the paper, one speaker remarking that in the treatment of such cases he regarded the subnitrate of bismuth as the "sheet anchor" in therapeutics. He commonly added a little carbolic acid to it. Another mentioned the good results which had followed the establishment of the diet-kitchens in Boston, where the sick poor, on an order from the district dispensary physician, could obtain fresh eggs, broth, and milk. Others advocated the use of condensed milk, some of the canned and sweetened, others of the "plain" condensed milk which was brought to the houses every other day. Another speaker thought the reader's criticism against the occasional use of castor oil was unjust. Another recommended rice-water and cream in the treatment of cases of the acute intestinal catarrh of infants. Another spoke of the good effects of discarding the bottle and tube in artificial feeding, and teaching the child to drink from a cup. Another alluded to the advantage to be derived from the cold-water bandage.

Wednesday, June 11th.—Second Day.

On Wednesday morning the Society reassembled, and was called to order by the President. After listening to the reading of the records of the names of sixty new and of thirty-three deceased Fellows, and of the Treasurer's report, a committee, which during the past year had obtained the views of the Fellows of the Society regarding the list of drugs which should be placed in the proposed revised edition of the pharmacopœia, presented its report.

pharmacopœial convention, 1880.

It was voted to send three delegates to the National Convention for the Revision of the Pharmacopœia, which is to be held in Washington, D. C., in May, 1880.

The reading of papers was then resumed.

the trials and triumphs of the country doctor

were described in an interesting and racy manner by Dr. Benjamin D. Gifford, of South Chatham.

A paper on

insane drunkards

was read by Dr. Theodore W. Fisher, of Boston. The term insane drunkards should in strictness be applied only to those persons made insane by drink. Of that class there were several varieties: 1. Intoxicated persons who exhibited in some cases the phenomena of transient madness; 2. Cases of delirium tremens; 3. Patients with *mania à potu* or acute mania from the immediate effects of drink; 4. Chronic mania of alcoholism; 5. Dementia of alcoholism; and besides those there was scarcely any form of mental disease which might not in some cases be due to the abuse of alcohol. A sixth variety known as dipsomania occupied a somewhat debatable ground, some regarding it as a disease due to excessive habitual drinking, while others considered it a form of insanity due to hereditary or constitutional causes, and characterized by periodical attacks of drunkenness. It did not seem unreasonable to suppose that drink might produce in some cases simply a mania for getting drunk. The condition of dipsomaniacs was fully described, the importance shown, and yet the difficulty acknowledged of having them placed in proper asylums for a sufficient length of time.

some diseases of the eye requiring immediate treatment

was the subject of a paper by Dr. Charles H. Williams, of Boston. The symptoms, differential diagnosis, pathological appearances, and treatment of glaucoma, iritis, and ophthalmia neonatorum, were discussed.

Following the introduction of delegates from other State medical societies, and the reports from delegates to other medical organizations, the

annual discourse,

entitled, *Many Things Remain to be Done*, by Dr. George W. Garland, of Lawrence, was delivered.

The orator remarked that there was never a greater untruth uttered than the saying, "When a man has once got his name up he can lie in bed till noon." Nothing but untiring industry would enable us to advance or even to maintain the high position we now occupied. Our work could not be slighted with impunity. The reason why, in the history of the medical men of that State, that here and there one arose above the common mass of physicians was, that while he lived he did something to elevate the standard of medicine. The orator advocated the influence of the Society in securing the universal establishment of the metric system of weights and measures. Reference was made to the good work of the members of the Society in sanitation and hygiene. Much yet remained to be done in those departments of science. Regarding the admission of women to the medical schools and to the Society, the orator stated that in his opinion, if

women were to be admitted to medical schools and were to be recognized as physicians, there could be no more impropriety in co-education than there was in co-practice or co-consultation. The same qualifications should be strictly adhered to in *all* cases for admission into the Society, and then there could be no valid reason for excluding any human being from the Society.

After passing a vote of thanks to the orator for his able and eloquent address, the Society passed to the Music Hall, where dinner was served.

The following are the officers for the ensuing year:

For President—Dr. George H. Lyman, of Boston.

For Vice-President—Dr. David P. Smith, of Springfield.

For Treasurer—Dr. Frank W. Draper, of Boston.

For Corresponding Secretary—Dr. Charles W. Swan, of Boston.

For Recording Secretary—Dr. Francis W. Goss, of Roxbury.

For Librarian—Dr. David H. Hayden, of Boston.

For Orator—Dr. Thomas H. Gage, of Worcester.

For Anniversary Chairman for the Annual Meeting in 1880—Dr. J. C. Warren, of Boston.

The next Annual Meeting will be held in Boston, on the second Wednesday in June, 1880.

RHODE ISLAND MEDICAL SOCIETY.

Sixty-seventh Annual Meeting, held in Providence, June 10, 1879.

(Special Report for THE MEDICAL RECORD.)

THE sixty-seventh annual meeting of the Rhode Island Medical Society was held in Lyceum Hall, Providence, June 10th, the President, Dr. EDWARD T. CASWELL, in the chair.

DR. C. W. PARSONS read the report of the trustees of the Fiske fund, as follows:

REPORT OF THE FISKE FUND.

After a careful examination of the essays presented, the trustees awarded the premium of two hundred dollars for the best essay on the "Artificial Feeding of Infants," to an essay bearing the motto *vivat infans*, and found the author to be Dr. Oliver C. Wiggin, of Providence. The premium of two hundred dollars for the best essay on "Cholera Infantum; its Causes, Nature, and Treatment," was awarded to an essay bearing the motto, *Nec scire fas omnia*, and the author was found to be Dr. Charles E. Banks, of Portland, Me. On the third subject for 1879 the trustees made no award.

They proposed the following subjects for 1880:

1. The true value of electricity in its application to surgery.

2. The sympathetic nerve—its relation to disease.

For the best essay on either of those subjects worthy of premium they offered a premium of two hundred dollars, on the usual conditions.

REPORT OF BOARD OF CENSORS.

DR. W. O. BROWN read the report of the Board of Censors. Dr. Henry J. Bigelow, of Boston, was recommended for honorary membership of the Society, and Dr. John W. Sawyer for honorary chairman.

REPORT OF COMMITTEE ON PUBLICATION.

DR. W. O. BROWN read the report of the Committee on Publication, giving an account of the publication of the second part of the second volume of Transactions.

REPORTS OF DELEGATES.

DR. JOB KENYON read a report of his visit to the meeting of the American Medical Association, with notes of the papers presented there.

DR. JAMES H. ELDREDGE read a report of a visit to the annual meeting of the New Jersey Medical Society, with notes of the proceedings.

SUPERINTENDENTS OF THE INSANE.

DRS. RAY, KIRKBRIDE, and NICHOLS, from the Convention of Superintendents of the Insane, were introduced to the Society. Dr. Ray made a brief address, expressing his long interest in the Rhode Island Medical Society, his confidence in its increased prosperity, and making allusion to former members of the Society. Dr. Kirkbride expressed the reliance of the superintendents of the insane upon the medical profession, and spoke of the honorable record of the State of Rhode Island in its care of its insane, which he did not doubt was largely from the influence of this Society. Dr. Nichols gave some pleasant recollections of his student life in Rhode Island.

DELEGATES FROM OTHER STATE MEDICAL SOCIETIES.

DR. J. F. NOYES, of Michigan, an honorary member of the Society, made a few remarks, regretting the necessity that compelled an almost immediate departure from the meeting, and conveying the fraternal greetings of the Michigan Medical Society.

DR. PENNINGTON, of New Jersey, extended the congratulations of the New Jersey Medical Society to the Rhode Island Society, and expressed his personal pleasure at meeting the members.

DR. HUTCHISON, of New York, gave some account of the organization of the New York Medical Society.

DR. DAVIS, of Massachusetts, expressed his pleasure at meeting the Rhode Island Society, and spoke of the progress of medical science as illustrated in particular by the attention given by national and State governments to the condition of sanitary reform. Dr. BIELDY, of Massachusetts, extended the hearty greetings of the Massachusetts Medical Society.

REGISTRATION OF PHYSICIANS.

DR. ARIEL BALLOU, from the Special Committee on Registration of Physicians, reported that the subject had not yet been fully considered, and the committee was continued.

EXPERT TESTIMONY.

DR. JOB KENYON, from the Committee on Expert Testimony before Courts, reported that a petition had been presented to the legislature for inquiring into the subject by the Judiciary Committee, and that a measure would be brought forward and considered at the next session. The committee was continued with further powers in relation to the subject.

OBITUARIES.

The Secretary, DR. W. E. ANTHONY, read obituary notices of deceased members of the Society: Dr. Samuel Augustus Arnold, Dr. Almond Clark Whitman, and Dr. Israel Matthewson Bowen, active members, and Dr. Ashbell Woodward and Dr. Isaac Hays, honorary members.

POISONING BY PRUSSIC ACID.

DR. W. H. PALMER gave an account of a recent case of poisoning by prussic acid, which presented some unusual features.

The following were elected officers of the Society for the ensuing year:

For President—Dr. E. T. Caswell, Providence.

For First Vice-President—Dr. George P. Baker, Providence.

For Second Vice-President—Dr. Charles O'Leary, Providence.

For Recording Secretary—Dr. W. E. Anthony, Providence.

For Corresponding Secretary—Dr. E. M. Harris, Providence.

For Treasurer—Dr. Charles H. Leonard, Providence.

For Board of Censors—Dr. David King, Newport; Dr. Ariel Ballou, Woonsocket; Dr. J. W. Ely, Providence; Dr. J. H. Eldredge, of East Greenwich; Dr. W. O. Brown, Providence; Dr. S. Clapp, of Pawtucket; Dr. Otis Bullock, of Warren; Dr. Lloyd Morton, of Pawtucket.

The officers of the Society were reëlected without exception.

SPECIMEN OF THE PITCHER PLANT.

Dr. Jas. H. Eldredge presented a specimen of the pitcher plant, which feeds upon insects, and some discussion followed upon the nature and properties of the plant, Dr. Ballou speaking of its soothing effects in certain cases of small-pox.

NEW FELLOWS.

No new Fellows were elected, the nominations going over under the rules to the next quarterly meeting.

LIBRARY COMMITTEE.

The following were elected members of the Library Committee: Dr. T. C. Newell, Dr. O. C. Wiggin, Dr. G. D. Hersey, Dr. W. E. Anthony, Dr. H. S. Miller.

PROFESSIONAL SECRETS.

Dr. S. W. Francis, of Newport, offered a resolution to the effect that the President of the Society be instructed to petition the General Assembly for an act that no physician authorized to practise medicine be compelled to reveal information given him in the confidence of his profession in the courts of the State. The resolution was passed.

ANNUAL ADDRESS.

The President, Dr. Edward T. Caswell, then delivered the annual address. He commenced by paying a feeling tribute to the memory of the venerable Dr. Arnold, and passed to make some practical suggestions for the conduct of the Society, speaking of the advantage that would result from more attention by individual members to the preparation of papers on subjects of importance and interest to the profession, to be read at the meetings, and suggesting that the day of the annual meeting be changed so as not to coincide with the date of the meeting of the Massachusetts Medical Society, The main subject of the address was devoted to a consideration of

THE TEMPERANCE QUESTION FROM A MEDICAL POINT OF VIEW.

Leaving the picture of the evils of intemperance in its social aspects to others, he canvassed the uses of alcohol in health and disease. It had long been used, and was by many considered a necessity, the nations who did not use it falling back on other stimulants of a more pernicious nature. A concise and clear description of the effects of alcohol upon the human system was given, showing that it was in no respect food, and added nothing to the vital forces, but diminished the temperature. The suggestion was made that policemen should be instructed in the use of the physician's thermometer, as determining the nature of alcoholic stupor as differing from other stupor, so that there might be no repetition of such incidents as had been known to occur, where a sufferer from apoplexy had been thrown into a drunkard's cell to die. The power and effects of alcohol as a medicine were then elucidated, showing that it could not be omitted from the materials of the physician. Considered in relation to health the question was presented as to whether the moderate use of alcohol was beneficial or not, and there was a very general and thorough array of the latest medical knowledge upon the subject in its physical and mental relations, and the conclusion was reached that, while there were some to whom total abstinence was the only safety, the moderate use of lighter wines, ale, and beer, under proper circumstances, was not injurious, and was often beneficial under the circumstances of modern life. The address concluded with the expression of the opinion that the use of the lighter alcoholic drinks would be conducive to general temperance in the present condition of society. The address was received with marks of hearty applause and approval.

On motion of Dr. Winsor, a commmittee consisting of Drs. Parsons, Eldredge, and Mitchell, was appointed to consider the suggestions in the address of the President.

GASTRIC ULCER.

Dr. Winsor made a report of a case of gastric ulcer.

On motion of Dr. Ballou, a copy of the President's address was requested for publication, the Doctor expressing his hearty approval of its conclusions.

The Society then adjourned to the Narragansett Hotel for dinner.

THE MICHIGAN STATE MEDICAL SOCIETY.

Fourteenth Annual Meeting, held in the City of Detroit, June 11th and 12th, 1879.

WEDNESDAY, JUNE 11TH—FIRST DAY—MORNING SESSION.

The Annual Meeting of the Michigan State Medical Society was held in St. Andrew's Hall, Detroit, beginning on Wednesday, June 11, at 10 A.M., Dr. Edward Cox, of Battle Creek, President, in the chair.

Prayer was offered by Rev. R. W. Clark, after which the

ADDRESS OF WELCOME

was delivered by Dr. Wm. Brodie, of Detroit, who, on behalf of the medical profession and the citizens, gave a cordial greeting to the members of the State Medical Society. After reviewing the commercial interests of the city of Detroit, her financial prosperity, her attractions and her enterprise, Dr. Brodie remarked: "Gentlemen, you have met here in the interests of the noblest of professions. You have met to again greet each other and renew the friendships formed in years gone by. Science is extending her benefits to our race; and the department you represent can claim its position in the foremost ranks. To prolong life, to discover the causes of disease and how to remove them, is and has been your great mission; and when dread pestilence has invaded our land, neither the fear of death nor pecuniary loss has prevented you from being the foremost in the great cause of humanity. It is an honor to be a member of such a profession; and as we meet in this hall, to review the past, to enjoy the present, and prepare for the

future, may we also remember that we, too, are mortal. May we also remember that we are one common brotherhood, laboring together for a common interest—the prolongation of human life.

I need not repeat that you are cordially welcome. Our public institutions will be open to your inspection; and the hospitality of our citizens will be open for your physical enjoyment. In the language of Michigan's motto, we bid you 'circumspice.'"

Dr. Brodie, as Chairman of the Executive Committee, then made announcements regarding the hours for the sessions, and the several invitations extended to the Society.

A recess of ten minutes was then taken to receive proposals for membership. The report of the Standing Committee was presented, and the Society adjourned, to meet at 2 P.M.

First Day—Afternoon Session.

The Society was called to order, at 2 P.M., by the President.

NEW MEMBERS.

After the calling of the roll the following gentlemen were duly elected to membership in the Society: Electus B. Ward, Detroit; Morse Stewart, Jr., Detroit; A. M. Haight, Albion; J. Miller, Mount Pleasant; L. S. Griswold, Sand Lake; A. L. Worden, Ann Arbor; C. M. Woodward, Tecumseh; Thos. Addison, Rockford; S. H. Hagadorn, Bay City; A. W. Ricker, Fenton; Samuel S. Stephenson, Detroit; L. D. Knowles, Kendall; F. P. Kenyon, Montague; A. M. Hawes, Detroit; F. J. Jackson, Lapeer; C. W. Hubbard, Davisburg; J. W. Robertson, Detroit; Victor C. Vaughan, Ann Arbor; C. P. Felshan, Ypsilanti; R. W. Odell, Ypsilanti; C. W. Morse, Dowagiac; Eli Woodman, Farmington; C. J. Lundy, Detroit; Charles S. Sheldon, Greenville; M. K. Ross, Detroit.

PRESIDENT'S ADDRESS.

Dr. Cox then delivered the annual address, selecting for his subject

CRIMINAL ABORTION.

It was an exhaustive discourse upon the evils and results of the practice of abortion, and a review of the various means suggested for doing away with the great evil. He believed that the church, the press, and the medical profession should unite in educating the people to thoroughly understand the causes and sinful results of this most cowardly crime, and to make known the fact that it could no longer be committed with impunity. The address was well received, and was referred to a special committee.

Reading of papers being next in order

Dr. E. P. Christian, of Wyandotte, read a paper entitled

SHORTNESS OF THE UMBILICAL CORD A CAUSE OF RETARDED LABOR AND ACCIDENT.

The paper was referred to the Committee on Publication.

HODGKIN'S DISEASE.

Dr. Geo. K. Johnson, of Grand Rapids, read a comprehensive paper on the above subject, and gave a detailed history accompanied with photographic illustrations of two cases.

The paper was referred to the Committee on Publication, and the Society adjourned to the steamer Gazelle, which took the members and invited guests to several points of interest on the Detroit River.

EVENING SESSION.

In the evening the Executive Committee gave the Society a reception at the residence of Dr. Wm. Brodie, whose hospitality and happy faculty of making guests feel as though at home are well understood both by the profession and the public.

Thursday, June 12th.—Second Day.—Morning Session.

The Society met at 10 A.M., and was called to order by the President.

REPORT OF COMMITTEE ON ADMISSIONS.

The Committee on Admissions recommended the following gentlemen for membership: Drs. L. S. Stevens, Albert P. Prescott, L. W. Bliss, J. Vohan, James H. Stowell, E. C. Adams, A. H. Green, A. J. Hope, Judson Bradley, G. W. Church, A. W. Nichols, J. W. Elliot, J. G. Millspaugh, and G. W. Montgomery. The report was accepted and adopted.

Dr. G. E. Ranney, the Secretary, announced a charge by Dr. Eugene Smith, in respect to the sign business, against a member of the Society, which was referred to the Judicial Council.

REPORT OF COMMITTEE ON NECROLOGY.

Dr. Wm. F. Breakey, of Ann Arbor, read the report of the Committee on Necrology. He was happy to report only few deaths; but the members lost had been valued ones. Drs. J. H. Beach, of Coldwater; Dwight Nimms, of Jackson; Z. E. Bliss, of Grand Rapids; and Nathan Mitchell, of Colon, were reported as having died, and appropriate resolutions from the local societies were appended to the notice of decease. The report was adopted and ordered published.

TREASURER'S REPORT.

The report of the Finance Committee was read by Dr. Pratt, of Kalamazoo. The balance in the treasury was $181.12. The report was accepted and adopted.

A paper on *Hour-Glass Contraction of the Uterus*, prepared by Dr. J. S. Calkins, of Thornville, was read by Dr. Hugh McCall, of Lapeer.

The paper was discussed by Dr. J. H. Bennet, of Coldwater, and referred to the Committee on Publication.

Dr. Donald McLean, of Michigan University, read a paper on

CLINICAL NOTES ON OVARIOTOMY.

It was listened to with great attention and contained his experience in several cases.

The paper was discussed by Dr. A. W. Alvord, of Clinton, and referred to the Committee on Publication.

Wells *vs.* Beebe, of Howell.

The committee to whom was referred the charges preferred by Dr. C. V. Beebe, of Howell, against Dr. Wm. L. Wells, of the same place, reported as follows: We find that the Livingston County Medical Society, after a full examination, exonerated the said Dr. Wells from all the charges and specifications. While we find that there might have been some irregularities in the use of a certain cancer powder, we think it was made a reason for a professional and personal quarrel between the parties, which, in our opinion, is reprehensible, and should be discontinued. And in consideration of the fact that Dr. Wells has discontinued the irregular practice, made known the formula—the valuable formula—(which he was to

hold till death), we recommend that he be admitted to membership of this society. The "valuable formula" was a little arsenic.

The recommendation was supported.

Dr Foster Pratt, of Kalamazoo, moved the reference of the recommendation to the Judicial Council.

Dr. A. B. Palmer, of Michigan University, said it seemed to him the precedent had been already established of not going behind the returns of a local society. He therefore thought Dr. Wells should be admitted.

Dr. Pratt said he did not consider that, because a local society had admitted a member, the State society should do so necessarily. The Judicial Committee room was the place for all discussions of a personal nature. "We have erected a tomb of the Capulets, in which all those things can be consigned to oblivion, except so far as it chooses to give up in part what is committed to its trust." He read a section of the constitution of the Society, as follows:

"All questions of a personal character, including complaints and protests, all questions on credentials, shall be referred at once, after the report of the Committee on Admissions or other presentations, to the Judicial Council, and without discussion."

The Chair—This will be so referred without discussion.

A paper written by Dr. H. O. Hitchcock, of Kalamazoo, was then read for him by Dr. Dunster. It was entitled, "*A Case of Fracture of the Acetabulum, with Dislocation of the Femur; Reduction and Subsequent Redislocation caused by Improper Removal of the Patient; Final Reduction after Six Weeks. The History of a Suit for Alleged Malpractice; Review of the Testimony in the Case; Decision of the Supreme Court, and Final Result of the Case.*"

This paper gave rise to a lively debate, participated in by Drs. E. W. Jenks, Hitchcock, Carstens, H. O. Walker, Brodie, and Palmer, during which questions of privilege were asked, protests and appeals from the decision of the Chair made, and motions of reference offered. The debate terminated by a continuance of the reading of the paper. The reading was again interrupted at 12.30 by a motion to adjourn, and the Society adjourned to meet at 2 P.M.

Second Day—Afternoon Session.

The Society was called to order at 2 P.M. by the President, and the following candidates elected to membership in the Society: Dr. Wm. Zimmerman, and Mrs. Dr. F. A. Tenny.

NOMINATING COMMITTEE.

On motion of Dr. Brodie, of Detroit, a Committee on Nominations was appointed, consisting of Drs. J. H. Jerome, of Saginaw City, A. F. Kinnie, of Ypsilanti, H. B. Shank, of Lansing, Peter Klein, of Detroit, and E. Twiss, of Athens, to nominate all officers of the Society, except the President and members of the Judicial Council.

The Society then proceeded to ballot for President, and Dr. George K. Johnson, of Grand Rapids, was elected.

COMMITTEE ON THE PRESIDENT'S ADDRESS.

The special committee to whom was referred the President's address on the subject of "Criminal Abortion" consisted of Drs. Foster Pratt, of Kalamazoo, Charles Shephard, of Grand Rapids, S. S. French, of Battle Creek, E. P. Christian, of Wyandotte, and I. E. Brown, of Monroe.

JUDICIAL COUNCIL.

By ballot, Drs. Wm. Brodie, and J. A. Brown, of Detroit, and J. H. Bennett, of Coldwater.

Dr. Foster Pratt, of Kalamazoo, was elected a member of Judicial Council, to fill vacancy caused by the election of Dr. Johnson to the presidency of the Society.

Dr. H. B. Shank, of Lansing, was elected to fill the vacancy caused by the death of Dr Nims.

HONORARIUM TO THE SECRETARY.

On motion, one hundred dollars was voted to the Secretary, with the thanks of the Society.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations reported as follows:

For First Vice-President—Dr. J. T. Thomas, of Bay City.

For Second Vice-President—Dr. H. B. Shank, of Lansing.

For Third Vice-President—Dr. W. F. Breakey, of Ann Arbor.

For Fourth Vice-President—Dr. E. S. Snow, of Dearborn.

For Treasurer—Dr. Geo. W. Topping, of De Witt.

The report was accepted.

Dr. Shank moved to amend by substituting for his own, the name of Dr. D. O. Farrand, of Detroit. Carried.

The report was then adopted.

Dr. Brodie moved that the regular order be proceeded with.

Dr. Jerome moved that the further reading of the paper of Dr. Hitchcock be dispensed with. Lost.

Dr. Jerome moved that those who have papers here have leave to file them with the Publishing Committee. Carried.

Dr McLean moved that the Society have an evening session. Lost.

DR. HITCHCOCK'S PAPER AGAIN.

Dr. Dunster then proceeded with the reading of the paper of Dr. Hitchcock, reading extracts from the testimony in the famous case of Burgett *vs.* Stillwell impleaded with Hitchcock, the suit in question. The paper also quoted the decision of the Supreme Court on the trial, which reversed the judgment of the court below, and the subsequent dismissal of the case in the Circuit Court.

Considerable discussion ensued regarding the disposition to be made of Dr. Hitchcock's paper.

Dr. Hitchcock finally asked leave to withdraw his paper from the Society, and his request was granted.

THE METRIC SYSTEM.

Dr. De Witt C. Wade, of Holly, presented a communication on the metric system of weights and measures, which was tabled until next year.

On motion by Dr. Brodie the unread papers were referred to the Committee on Publication.

On motion by Dr. Brodie, the thanks of the Society were tendered to the President, for the able manner in which he had presided over the Society during the past year and at the present meeting.

The President appropriately responded.

On motion of Dr. Foster Pratt, of Kalamazoo, the Society adjourned to meet in Grand Rapids, at 10 A.M, on the second Wednesday of May, 1880.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, June 2, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

FUNCTIONAL NERVOUS DERANGEMENTS SIMULATING STRUCTURAL DISEASE OF THE HEART, AND THE VALUE OF ELECTRICITY IN THEIR TREATMENT.

DR. A. D. ROCKWELL read a paper upon the above subject, of which the following is an abstract: If it was true, many to-day unconscious of danger to-morrow succumbed from organic heart disease, it was equally true that others were living a life of terrible expectancy, because of a fixed but unfounded suspicion of structural disease or decay. To illustrate that statement Dr. Rockwell referred to a case in which there was but a faint suspicion of any cardiac disturbance, although death occurred from dilatation and rupture of the right auricle; also to one in which the patient, ten years ago, was told by a distinguished auscultator that his life would be prolonged for only one or two years, but who was suffering from a nervous affection, and was not the victim of either well-marked or serious organic cardiac lesion. Correct diagnosis, therefore, in cases of suspected heart disease was of the greatest importance, and fortunately, as a rule, there was no very great difficulty in arriving at correct conclusions. Valvular disease, hypertrophy, and dilatation, with ordinary care could be detected, but with reference to fatty degeneration as much could not be said. Further on, however, the latter condition became so well defined that in most cases a probably correct diagnosis was usually readily reached. If the first sound was short and faint, its action slow and irregular, and, as associated symptoms, there were præcordial oppression with palpitation after undue exertion, a tendency to pallor and syncope, and inability to rest with the head quite low, it was quite probable that fatty degeneration was present, especially if dilatation existed without evidence of valvular lesion. Yet he had been led to believe that nearly all those symptoms might be present without the presence of structural decay. Every grade of cardiac disturbance followed long courses of dissipation, notably those of a sexual character. Cardiac disturbance was also very liable to occur during the sexual formative stage in young women. In a case related, the patient frequently suffered from what to her was alarming, namely, a feeling as if the heart suddenly ceased beating, and yet it was certain that she had no valvular lesion, and at her age (eighteen) fatty degeneration could hardly be allowed. The point impressed was that in not a few instances of disordered action of the heart, of a sufficiently persistent and distinctive character, not only to suggest, but to render highly probable the existence of structural derangement, the whole array of symptoms might be simply a sequence of physical and mental abuse by which the nervous system had been exhausted, while the heart was structurally sound. Rest, time, and treatment were the only means by which we could be certain of the existence or non-existence of decay. In that connection the history of two cases was given, which illustrated the remarkable sameness of the symptoms that resulted from organic heart disease and simple functional nervous derangement.

CASE I.—Mr. C., æt. 28, led a course of dissipation for several years, apparently without injurious results. At the age of twenty he began to be conscious of palpitation of the heart subsequent to excesses. Prudence with alleviation of symptoms, and dissipation with return of symptoms alternated until twenty-four, when he suddenly suffered from syncope, which, with varying degrees of severity, was subsequently repeated. He also coincidently suffered from disturbance of vision, falls without loss of consciousness, and violent tremors. His condition remained nearly stationary for three years, when the attacks became more frequent, occurred every week, and he was soon rendered helpless. The rhythm of the heart was somewhat disturbed, but there was no evidence of serious structural disease. To the tonic effects of general faradization the patient had not been subjected, and that plan of treatment was begun by Dr. Rockwell in October, 1878. The patient had steadily improved from that time, and although not entirely relieved of all symptoms, he was able to attend to his business steadily. The first effect of the treatment was to diminish the frequency of the syncopal attacks, lessen the pain in the præcordial region, decrease the disturbance of rhythmical action, and to increase the strength of the pulse.

CASE 2.—Mr. D., æt. 47, after several months of unusual mental exertion, became conscious of acceleration of the heart's action and a sensation of breathlessness after slight exertion, especially that made in ascending stairs. He suffered from insomnia, and was especially uncomfortable except his head was well raised in bed. After a time those symptoms became associated with a general neurasthenic condition, loss of appetite, and nausea. The first sound of the heart was so faint and abrupt as to be hardly perceptible. The patient firmly believed that he was suffering from incurable organic disease of the heart. Under rest, and the use of digitalis and bromide of potassium, there was an appreciable, though not a very decided change for the better. Eleven months after he first came under Dr. Rockwell's care he performed some work in way of balancing business accounts, and, immediately following a short walk exposed to the sun's rays, he fell to the floor unconscious. Subsequent to that attack he experienced a disagreeable sensation in the præcordial region, with shooting pains down the left arm, and recurring with tolerable regularity every evening. His pulse rarely arose above fifty-five. Digitalis and quinine were prescribed, and general faradization administered. At the end of the first sitting, fifteen minutes, the pulse had risen seven beats. A decided feeling of invigoration followed, and a more restful night than had been experienced for months. The faradization was repeated every other day. The heart's action became more regular and frequent, the pains down the left arm disappeared, and, at the present time, he was entirely recovered.

With reference to the value of electricity to give tone and strength to the nervous system, Dr. Rockwell remarked there was but little difference of opinion among those who had had any adequate experience in its use. In thus speaking of it he did not refer to its local use alone, but to thorough, systematic, and carefully graduated applications to the whole body. It had been termed a grape-shot method of procedure, but it was such in no greater measure than the administration of any internal medicine which performed its function through its action on the whole nervous and circulatory system, or the act of sea-bathing, or the action of sunlight. Neither local nor general applications of electricity exerted a very marked influence upon the normal pulse, but in those conditions of nervous derangement in which it was so rapid, and in others in which it was so slow, the effect of general faradization was

very great. He had succeeded in reducing a pulse of 150 or 160 by 40 or 50 beats to the minute within a very short time. Even in cases in which the irritability of the heart had been supposed to be of a reflex character, that result had been obtained. He had not in such and analogous cases been able to produce results as satisfactory with the galvanic current or with local applications.

Dr. Rockwell closed his paper with the following brief statement of what much observation had taught with reference to general faradization:

In *health*, the first, and, as a rule, the only effect following an application of general faradization, was one of invigoration, which, in the course of a few hours, more or less, subsided.

In *pathological conditions*, however, five groups of effects had been most frequently observed:

First, and perhaps most frequently—providing always that the applications were not too strong, were carefully graduated, and in all respects given judiciously—the treatment was followed, as in health, by a feeling of invigoration alone.

Second. Invigoration might be followed by depression, and that again by invigoration.

Third. The immediate result of the application might be depression with subsequent invigoration.

Fourth. No immediate effect might follow, but in a short time depression was experienced, succeeded in a few hours or on the day following by invigoration.

Fifth. Depression might immediately follow, succeeded by no feeling of invigoration.

In the latter cases the treatment should be discontinued. Such cases, however, were rare.

The special effects of general faradization varied even more than did the general effects.

WIND SPASM.

Dr. Wm. J. Morton presented a patient, who for several years had suffered from sudden attacks of great distress, both mental and physical, and with apprehensions of impending evil, attended by eructations of immense quantities of wind. The seizures lasted from one-half to one or two hours, during which time gallons of air, apparently, were expelled, and the patient was greatly distressed and showed an anxious expression of countenance. The attacks were liable to be developed by any form of excitement. None of the members had seen a case exactly like it. Nothing in way of treatment had afforded any benefit.

HEPATIC ABSCESS.

Dr. Wm. A. Hammond reported a case of hepatic abscess which he had operated upon April 21, 1879, evacuating about ℥ viij. of pus. Dr. Morton administered the anæsthetic. The patient had been hypochondriacal, in fact, almost insane. He had been in a private institution for treatment of mental disturbances, and had been affected in that manner four years. It was only recently that the doctor suspected any trouble with the liver. On the 21st of April he made a puncture between the 9th and 10th ribs to the depth of an inch and a half, and obtained odorless pus, which, upon microscopical examination, gave no evidence of the presence of hepatic tissue, and there was no evidence that it contained bile. The most troublesome feature in the case was the tendency to repeat, over and over, the same thing in the mind. For example, if he heard some phrase, he was unable to stop repeating it, and it would "run in his head" the same as a tune. He also had a constant impulse to blaspheme, which gave him great annoyance and mental anxiety, because he was a religious man. Since the operation all that mental disturbance had disappeared; he had gained in weight fifteen pounds, and had slept well. There were no external physical signs of abscess, but there was a slight tenderness upon pressure.

The theory entertained by Dr. Hammond was that the brain disorder induced the liver trouble, and not contrarywise, as was more commonly supposed.

Dr. A. D. Rockwell related the following case:

In May, 1878, a boy, aged ten, who was recovering from an attack of scarlet fever, was subjected to a severe and sudden fright by the excitement and confusion attendant on the accidental ignition of the curtains of the room in which he was convalescing.

The following night he suffered from several convulsive seizures, by which he was much exhausted, and shortly after choreiform disturbances became manifest.

The head was violently drawn from side to side through clonic contractions of the sterno-cleido-mastoid muscles, and at the same time there was distortion of the mouth, with much frothing. In September, nearly five months subsequently, the patient fell under his observation, suffering from symptoms substantially the same as described. He was subjected to electrical treatment, mainly by the method of central galvanization, and in a few weeks had approximately recovered, and treatment was abandoned. In November the patient returned with symptoms as aggravated as before. The same treatment, and in addition, general faradization, was again attempted. Partial recovery followed in due course, but for unavoidable reasons the patient abruptly abandoned treatment a second time.

About the middle of December the patient again presented himself, with the clonic movements as fully pronounced as ever. The same method of electrization was used as before, together with hypodermic injections of eserine, the active principle of physostigma, or calabar-bean. The amount injected on each occasion was $\frac{1}{30}$ of a grain, and Dr. Rockwell was led to give it a trial because of favorable reports that he had seen. The patient gradually recovered, but with no greater rapidity than on the two former occasions, and with the difference, that since the last result there had been no relapse. It had been his experience, and he believed of most practitioners, that the general tendency of chorea was toward recovery, and it was that fact that was the cause of such a surprising lack of unanimity concerning its treatment. When taken in hand immediately, it was by no means possible in every case to decide whether the recovery that followed was due to the remedy employed, or to time and care alone. If, however, the symptoms continued without abatement for two or three months, they were often exceedingly intractable to treatment, and should recovery result in a reasonable length of time after the adoption of any special method, it was fair to attribute it to the treatment employed. In chronic cases he had been led, through some considerable experience, to regard electricity in some form as a most efficacious remedy; but in the case just related, which in its details seemed to him to be somewhat unique, it would certainly appear as if the injections of eserine very effectively supplemented the electrical treatment.

The Committee on the subject of Insane Asylum Abuses then made a provisional report, after which the Society adjourned.

The Plumber and Sanitary Engineer has been enlarged, and changed from a monthly to a semi-monthly journal. The change indicates prosperity.

Correspondence.

NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

To the Editor of The Medical Record.

Sir:—In answer to "X," in your edition of April 26th, allow me to say, Dr. Verdi *is* the same homœopath whose appointment some years ago, as a member of the Washington Board of Health, caused such an excitement in the local Medical Society. "X" seems to be offended that the President should have appointed this Dr. Verdi a member of the National Board of Health, and insinuates disciplining the other members of the Board should they sit with him, and that the American Medical Association should, at its approaching session, take notice of it, which means, of course, that the Association should show its displeasure in some active manner. Let us look at this matter square in the face, without prejudice, for this is not the age of bigotry.

This Board of Health is a *National* Board of Health, as its name implies,—not an Allopathic, Eclectic, Hydropathic, Thomsonian, nor Homœopathic Board of Health. The act of Congress constituting this board does not state that its members shall all be physicians, and, in fact, one of its members, Samuel F. Phillips, Esq., is not a physician. Neither does it stipulate the medical practice that each member shall employ. How does brother "X" know but what Mr. Phillips is a homœopath. This Board was not organized to carry out any one idea of medical practice, but as a Sanitary Board, and the appointment of members was made from among those known as sanitarians, and those well fitted for the positions. Dr. Verdi is a well-known sanitarian, whatever therapeutic law in the administration of medicine he may have adopted.

The spirit which is being manifested in some sections of the country against homœopaths is not the spirit of the age, and I am glad to say, for the credit of the medical profession, that that spirit is gradually hiding its head. We cannot help acknowledging that *very* many of the homœopathic physicians are educated men, having been educated in both schools, graduating side by side with us, some of them taking prizes at our colleges, and yet, because they may choose to administer their remedies according to the law "Similia" instead of the law "Contraria," we immediately ostracise them from all social and professional privileges, as far as lies in our power. Their practice is no more "based upon an exclusive dogma" than ours; their educated men do not reject "the accumulated experience of the profession" any more than we do, in fact they search further than we do; their "anatomy, physiology, pathology, and organic chemistry" are the same as ours; they use the same palliatives that we do; the only point upon which we differ is in the administration of remedies. If the truth was known, many of our own school carry their small pocket-case of tinctures, and administer their remedies according to the homœopathic law, but are not honest enough to acknowledge it.

I have much more respect for the man who practises openly what he thinks is best, without fear of the American Medical Association, or any other Association, than for him who practises one thing and preaches the other. The medical profession is a liberal and charitable profession, and the physician who stands upon any other ground than this is a bigot, and in this age bigotry will never thrive.

I hope to see the day when the bitterness now existing (the same as existed between religious sects fifty years ago) will be wiped out; when the physicians of both schools will meet together, and consult together, and the best known remedial measures in both schools be used mutually for the benefit of mankind. B.

Richmond, Va., June 1, 1879.

UNION MEDICAL SOCIETY—REPORT OF CASES.

To the Editor of The Medical Record.

Dear Sir:—At the last quarterly meeting of the Union Medical Society of Washington, Warren, and Saratoga counties, held at Sandy Hill, May 20th, Dr. A. B. Burger, of Gansevoort, reported a post-mortem held by himself in company with Dr. B. J. Murray, of Wilton, which disclosed an unusual condition of the pelvic viscera. A fibroid tumor was found anterior to the bladder, and an abscess as large as a goose egg posterior to that organ. The walls of the bladder were thickened, and adherent to the pelvic walls. There had been progressive atony of the bladder and some tenderness over the pubic region. The tumor had been diagnosticated before death, but the other abnormal conditions were unlooked for.

Dr. Adamson, of Lake George, reported an extraordinary case of childbirth which had occurred in his practice. Labor came on at seven months, and the entire contents of the uterus, weighing five and a quarter pounds, were expelled in a single mass, with unruptured membranes.

Dr. Gibbs read a report, furnished by Dr. Sarah J. Finch, of Fort Ann, of a case of cancer involving the external meatus of the urethra, in which the patient showed a remarkable tolerance of morphia, given hypodermically. The report stated that the solution had been administered in this manner more than 1,500 times within fourteen months. No abscesses of phlegmon had resulted, except in one instance. A case of chronic softening of the spinal cord, illustrating in a more marked degree even the tolerance of the system of hypodermic injections of morphia, was reported by the secretary. In this case, the needle had been used from six to twelve times daily for six months, and no abscess or sore of any kind had ever resulted from the puncture.

James S. Cooley, M.D.,
Sec. Union Medical Society.

Sandy Hill, N. Y., May 21, 1879.

ELECTRICITY AND EXUDATION OF MERCURY FROM THE SKIN.

To the Editor of The Medical Record.

Dear Sir:—Mr. J. called at my office Wednesday morning, April 23d, complaining of nervous exhaustion. I recommended electricity and applied the galvanic current. I was astonished after the sitting, to find a couple of fine globules of mercury exuding from the pores of the skin on the back of the hand in which he held the positive electrode. I repeated the application of electricity, and another fine globule came from a point adjacent. Other applications gave no mercury.

The patient tells me that three days previous to this he had taken, upon retiring to bed, hydrarg. pil., gr. viij., thinking that his liver was torpid. This was followed by a seidlitz powder the next morning; a satisfactory passage from the bowels being the result.

He tells me, moreover, that he has not been under mercurial treatment, and has not had the metal about him in any form, with the exception of the above instance, in months.

The only source, therefore, we can refer it to, is the hydrarg. pil., absorption having taken place.

The case is an interesting one from the fact that it shows what may be the result of allowing mercury to remain undisturbed in the bowels so long, when cathartic action and not absorption is desired, and also that electricity may prove a means of aiding the elimination of the metal from the system, when such action is desired.

There was no tendency to ptyalism in this case.

H. A. Fairbairn, M.D.
Brooklyn, 239 Mcdonough Street.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 15 to June 21, 1879.

Wolverton, W. D., Major and Surgeon. Granted leave of absence for four months. S. O. 140, A. G. O., June 13, 1879.

De Hanne, J. V., Capt. and Asst. Surgeon. Fort Concho, Tex. Granted leave of absence for one month on Surgeon's certificate of disability, with permission to leave the Dept. S. O. 123, Dept. of Texas, June 12, 1879.

Hall, J. D., Capt. and Asst. Surgeon. Relieved from assignment to duty at Fort Griffin, Tex. (S. O. 83, C. S.), and assigned to duty as Post Surgeon at Fort Concho, Tex. S. O. 121, Dept. of Texas, June 10, 1879.

Havard, V., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Johnston, N. C., relieving Asst. Surgeon, B. G. Semig, who will comply with S. O. 114, C. S., A. G. O. S. O. 95, Dept. of the South, June 16, 1879.

Wilcox, T. E., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon, Boise B'ks, Idaho Ty., relieving Asst. Surgeon Wm. R. Hall. S. O. 64, Dept. of the Columbia, June 5, 1879.

Hall Wm. R., 1st Lieut. and Asst. Surgeon. When relieved, to report to Major John Greene, 1st Cav'y, commanding troops in the field at Camp Winfield Scott, Kittitas Valley, W. T. S. O. 64, C. S., Dept. of the Columbia.

Yeomans, A. A., Capt. and Asst. Surgeon. Having been found by an Army Retiring Board incapacitated for active service, granted leave of absence until further orders, on account of disability. S. O. 141, A. G. O., June 14, 1879.

Poisoning by Carbolic Acid employed by Intrauterine Injections.—After the removal of a fibrous tumor of the cervix, Dr. Rheinstadter employed intrauterine injections of a ten per cent. solution of carbolic acid. One day he noticed that only a small portion of the solution escaped, and the patient suddenly fell back unconscious. The face was pale and covered with sweat; the extremities were seized with tonic convulsions; the respiration ceased for a time, and then became slow and superficial; the pulse could scarcely be counted; and the abdomen became distended. Death seemed imminent, and the body was already cold. A subcutaneous injection of tincture of musk and ether was administered, and the pulse at once improved. At the end of four hours the patient regained consciousness. The accident was not followed by general peritonitis.—*Lyon Médical.*

Medical Items and News.

Contagious Diseases — Weekly Statement.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 21, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
June 14, 1879.	0	11	114	2	65	24	12	0
June 21, 1879.	0	4	103	2	40	28	1	0

Memorial Tablet.—At the last session of the N. Y. State Medical Society, the undersigned were appointed a committee to obtain the names of those members of our profession in this State who have lost their lives from being killed or wounded in battle, and of those who died in consequence of volunteering to render professional service during the prevalence of an epidemic or any deadly disease, or in consequence of exposing themselves through devotion to the pursuit of scientific investigations for the advancement of the science of our profession.

The list, when obtained, is to be published annually in the proceedings of the Society, in a separate roll.

Please give a short sketch of any physicians in your county who come under above description, with the date and occasion of their deaths, addressed to the chairman of the committee, Dr. Theodore Dimon, Auburn, N. Y., at as early a time as convenient, and oblige,

Yours respectfully,

Committee. { Theo. Dimon, M.D. / H. D. Didama, M.D. / Wm. Manlius Smith, M.D.

Central Turkey College.—At Anitab, Turkey, is located Central Turkey College, which hopes soon to have a medical department. In a letter from President T. C. Trowbridge, dated April 30, 1879, we learn that a dispensary was established in 1876, and that work on the foundations for a hospital has been commenced. We hope the college will be successful in obtaining a permanent place for clinical instruction.

Alcohol in Phthisis.—Dr. M. L. James recommends the following formula for giving his remedy in disguise:

℞. Syr. cal. lacto-phosph..... f ℥ ij.
Spts. frumenti..... f ℥ viss.
Glycerinæ pur..... f ℥ vj.
Tr. cinchon..... f ℥ iss.
M. Dose: according to indications.

BOOKS RECEIVED.

Elements of Medical Chemistry. By Adolph Wurtz, Professor of Chemistry of the Faculty of Medicine of Paris. Translated, from the Fourth French Edition, by Wm. H. Greene, M.D., of Philadelphia. One hundred and thirty-two illustrations. Philadelphia: J. B. Lippincott & Co. London: 16 Southampton St., Covent Garden. 1879.

Diseases of the Intestines and Peritoneum. By Bristowe, Wardell, Begbie, Habershon, Curling, and Ransom. Wood's Library of Standard Authors. New York: William Wood & Company. 1879.

Atlas of Human Anatomy. Illustrated. By R. J. Godlee, F.R.C.S. Part 2. Philadelphia: Lindsay & Blakiston. 1878.

INDEX.

A.

A strange fact, 312, 397.
Abbott, Dr. Geo. E., tenaculum scissors, 503.
Abdominal pregnancy, cases of, 18.
Abdominal tumor, rare form of disease, 348.
Abortion, hemorrhage during, 232; septicæmia following, 534; treatment of hemorrhage in, 220.
Abscess, bony, 446; hepatic, 620; hyperdistention of, 25, 144; of kidney, successful aspiration of, 251; of the liver, following dysentery, 176; mammary, treatment of, 402; multiple, of bladder, 355; scrofulous,-traumatic origin of, 293; spinal, 395.
Abuse of medical charity, 578, 586.
Academy of Surgery, Philadelphia, 551.
Acetonæmia, 301.
Acid, acetic, in ununited fracture, 301; carbolic, poisoning by, 622; pyrogallic, in hæmoptysis, 576; salicylic, in dyspepsia, 576.
Acidulated water in cystitis, 141.
Acne rosacea, 371.
Aconite, case of poisoning by, 128.
Actual cautery, surgical uses of, 289; use of in medicine, 442.
Acupuncture, 431.
Adeno-carcinoma of cheek, 88.
Adenoma, cystic, of the breast, 234; of the uterus, 13.
Adulteration of food and medicine, 154.
Adulterations and social science, 63.
Anæsthetic, local, 288.
Aneurisms, elastic bandage in the treatment of, 179; popliteal, treatment of, by Esmarch's bandage, 288.
Adirondack region and pulmonary phthisis, 385, 409.
Adulteration of wine in France, prevention of, 135.
Africa, climate of, for consumptives, 252.
After-pains, hypodermics of morphine in, 312.
Agnew, Dr. C. R., cataract extraction, with cases, 250, 447.
Agnew, Dr. Hayes, notice of book by, 16.
Aids to chemistry, 231.
Aiken *vs.* State Board of Health, 71.
Air, moisture as an impurity in, 423.
Air of the House of Representatives, 48.
Air-passages, growths and foreign bodies in, 208; removal of growths and foreign bodies from, 211.
Albuminuria in persons apparently healthy, 297; pathological conditions of, 420; puerperal, and convulsions, jaborandi in, 174, 196; treatment by inhalation of oxygen, 421.
Alcohol question in England, 87.
Alcohol, substitutes for, 155; in phthisis, 624.
Alcoholic coma, diagnosis of, 168.
Alcoholism and chloralism, 273.
Alcoholism, chronic, treatment of, 312.
Alimentation, supplementary rectal, 442.
Allport, Dr. Frank, oxalate of cerium in chronic cough, 69; grindelia robusta in asthmatic affections, 594.
Aloeopothy, 393.
Alteration of prescriptions, 230.
American Association for the Cure of Inebriates, 432, 492, 570.
American Gynecological Society, notice of transactions of, 613.
American Journal of Otology, 168.
American Medical Association, 384, 400, 467, 469, 475; report of sections of, 494, 518.
American Neurological Association, 575.
American Public Health Association, and National Academy of Sciences, 165; and the Withers bill, 212.
American Surgical Society, 504.
American Veterinary College, 263.
Ammonia, intravenous injections of, 532.
Amputation, avoidance of pain after, 120; through inflamed tissues, 445.
Amyl nitrite as a cardiac stimulant, 414.
Anæmia, progressive pernicious, changes in the sympathetic in, 373.
Anæsthesia, local, 288; in ovariotomy, 549; produced in children by chloral, 192; rapid, 110.
Analysis, elementary and quantitative, 256; of one thousand consecutive midwifery cases, 107.
Anatomy, Chinese, 576; human, and evolution, 169.
Aneurism of carotid and distal ligature, 384; of the palmar arch, 33; popliteal, treatment by Esmarch's bandage, 228; traumatic, of eyelid, 559.
Angina pectoris, nitro-glycerine as a remedy for, 350.
Animal heat, 515.
Ankle-joint, resection of, 378.
Annual Report of the New York Dispensary, 1879, notice of, 581.
Anterior cornua, softening of, in recent myelitis, 252.
Anterior splint, new modification of, 228.
Anthropological study, 208.
Antidote in carbolic acid poisoning, 262.
Anti-emetic, "spirit of walnut," 128.
Antiperiodic, new, 304.
Antiseptic surgery, 206, 269, 356, 561.
Antiseptic treatment of the genital canal in women, 554.
Anus, effect of constipation on, 539.
Aorta, aneurism of arch of, 305.
Aortic insufficiency, development of, in a case of acute rheumatism, treated by salicylic acid, 61.
Aphasia, cerebellar lesion with, 251; due to thrombosis of small twigs supplying the speech region, 425; sudden development of, case, 260.
Apomorphia in cynanche, 405.
Appendix vermiformis, perforation of, by tubercular ulcers, 228; pin in, 3.
Archives of Medicine, 240.
Arkansas State Medical Society, 551, 583.
Arsenic in green leather, 153.
Arsenical poisoning and green eye-shade, 192; dialyzed iron in, 192.
Arsenite of soda, antidote for, 47.
Arteries, novel distribution of, at the base of the skull, 379.
Articular ost'tis, 187.

...matism, 166, 394; lectures on, 32,
...eatment of, 213.
... paralysis, acute, 85.
...Dr. John, notice of book by, 231.
... in the new-born, 205.
...ation in the treatment of perityphlitic abscess, 371; in abscess of liver, 176; successful, of abscess of kidney, 251.
Asthenopia, 377.
Asthma millari, case of, 153.
Astigmatism, 143.
Asylums, overcrowded, 181.
Asymmetry of the brain, 376.
Athetosis, 330; case of, 441.
Atkinson, Dr. Wm. B., notice of book by, 231.
Atlas in two segments, 91.
Atrophy of brain, congenital absence of hand with, 251.
Atrophy, progressive muscular, 506.
Atropia in ophthalmic practice, 402; in pyæmic chills, 204; and eserine, 448.
Atthill, Dr. Lombe, 168; notice of book by, 328.
Austrian universities, 479.
Aural hygiene and the public schools, 254.
Autophony and tinnitus aurium, causes of, 128.
Aveling, Dr. J. H., notice of book by, 329.

B.

Bacteria in carbuncle, 192; utilization of, 144.
Baldness, treatment of, 144.
Bandage, elastic, in the treatment of aneurism, 179; solid rubber, in surgery, 319.
Barker, Dr. Fordyce, on jaborandi, or pilocarpine in puerperal albuminuria and convulsions, 196; treatment of hemorrhage during abortion, 232.
Barry, Dr. R. A., reply to "Nonne," 550.
Bartholow, Dr. Roberts, 311.
Battey's operation, 106.
Bayles, Dr. Geo., sedative action of calomel, 454.
Beach, Dr. A. P., a giant birth, 271.
Beard, Dr. Geo. M., on differential diagnosis of neurasthenia, 184; electrolysis in surgery, 114; on nervous diseases connected with the male genital function, 73, 555; on writer's cramp and allied affections, 244.
Bell, F. Jeffrey, notice of translation by, 280.
Bellevue Hospital, reports, 105, 250, 348, 394, 514, 536.
Bellevue Hospital Medical College, 239, 528.
Bennett, Dr. J. H., notice of book by, 329.
Beribéri, a case of, 397.
Bert, M. Paul, 143.
Biddle, Dr. John Barclay, obituary of, 94; resolutions on death of, 119.
Bigelow, Dr. Horatio R., on loss of memory in cerebral softening, 319; neuritis, 574.
Bigelow, Dr. Henry J., litholapaxy, 593.
Bigelow, Jacob, M.D., LL.D., obituary of, 167.
Bigelow's method, lithotrity, 259.
Billings, Dr. John S., Index Catalogue of the National Medical Library—the new health bill, 260.
Bismuth in onychia maligna, 397.
Black vomit, cause of, in yellow fever, 219.
Blackwood, Dr. Wm. R. D., on the treatment of acute articular rheumatism, 213.
Bladder, multiple abscess of, 355; treatment of rupture of, 421; irritable, 612.
Blatta orientalis, action of, 263.
Blepharitis, treatment by vulcanized india-rubber, 144.
Blood-corpuscles, counting of, 491; do the colored possess contractility? 331; has the red of the mammalian a nucleus? 112; variations in the number of human, 325.
Blood, defibrinated, in rectal alimentation, 308; transfusion of, in opium-poisoning, 252; filaria in, 354.
Board of health, a new, 400.
Body-snatching, 119.
Borck, Dr. Edward, notice of monograph by, 328.
Bosworth, Dr. F. H., laryngeal phthisis, 484, 459.
Botany, medical, 182.
Bozeman, Dr. Nathan, anæsthesia in ovariotomy, 549; reply to Dr. Sims, 213.
Brain, atrophy of, with congenital absence of hand, 251; sections of, 376; tumor of, 553.
Bramblett, Dr. W. H., on cool acidulated water in cystitis, 141.
Bright's disease, lecture on, 256; resina copaibæ in, 57; Mahomed on, 609.
Bristol, Dr. B. J., on acute articular rheumatism, 166.
British Medical Association, delegate to, 504, 600.
Bronchial glands, diseases of, 107.
Bronchitis, 111.
Brooklyn Board of Health, control of contagious diseases by, 468.
Brown, Dr. Thomas R., cases of urethral surgery, 199.
Brown, Dr. Y. W., labor, with pendulous uterus, 359.
Bryant, Thomas, F.R.C.S., notice of manual by, 280.
Bucknill, Dr. John Charles, notice of book by, 65.
Buried in a mine, 442.
Burke, Dr. Martin, report of four cases of pyothorax, 452.
Burns, charcoal for, 264; deformity produced by, 211.
Byford, Dr. Wm. H., 288.
Byrne, Dr. John, 216.

C.

Cabell, Dr. J. L., on the American Public Health Association and the Withers bill, 212.
Caffein as a diuretic and cardiac stimulant, 226.
Calcium sulphide and inflammation of the external auditory meatus, 552.
Callender, Geo. W., F.R.S., 46; lecture on avoidance of pain in the dressing of surgical cases, etc., 25.
Calomel, sedative action of, 453.
Cancer of stomach, etc., 349; of rectum, lumbo-colotomy for, 185.
Cannabis indica in epilepsy, 325.
Canthoplasty, 377.
Carbolic acid to abate pustulation of small-pox, 284.
Carbolic acid poisoning, 373, 378; antidote in, 262.
Carbolic acid spray in phthisis, 119.
Carolina twins, 96.
Carbolized jute, 59.
Carbonic acid gas, 311; in intermittent fever, 204.
Carbuncle, bacteria in, 192.
Cardiac hypertrophy, cause of, 349.
Care of the insane, 62.
Carotid, aneurism of, and distal ligature, 384.
Carroll, Dr. A. L., valvular lesions of the heart, 57.
Castle, Dr. F. A., mortality of scarlatina among the tenement-house population, 574.
Cat, frozen sections of, 311.
Cataract extraction, 447, 491.
Caulophyllum, 310, 402.
Central Turkey College, 622.
Centrum ovale, 376.
Cerebellar lesion, with hemiplegia and aphasia, 251.
Cerebral apoplexy, treatment by injections of ergotine, 144.
Cerebral softening, loss of memory in, 319.
Cerebral and spinal exhaustion, 465.
Chaillé, Dr. S. E., on evolution and human anatomy, 169.
Chancre, perchloride of iron in, 312.
Chapped hands, prescription for, 48.
Charcoal for burns, 264.
Charcot, J. M., notice of lecture by, 266, 280.
Charity Hospital reports, 10, 47, 224.
Chaulmoogra oil in leprosy, 312; in phthisis, 514.
Chemist and Druggist, 576.
Chenopodium, poisoning by oil of, 312.
Chestnut bark as an antiperiodic, 304.
Chicago Gynecological Society, 235.

Chicago Medical Society, 111, 402, 451, 479, 527.
Chills, pyæmic, atropia in, 204.
Chloral anæsthesia in children, 192.
Chloral as a vesicant, 311.
Chloral inebriety, 570.
Chloral, oleaginous solutions of, 157.
Chloralism and alcoholism, 273.
Chlorate of potassa poisoning, 178.
Chlorate of potassa, remedial and fatal effects of, 241.
Chlorine, free, in treatment of diphtheria, 48.
Chloroform and supra-orbital tic, 275; and tetanus, 143; as a uterine stimulant, 113.
Cholagogues, 264.
Cholecystotomy, 539, 592.
Cholera infantum, 546; strawberries in, 143.
Chorea, adult, 553; treatment of, 204.
Chronic alcoholism, treatment of, 312.
Chylous urine and filaria in blood, 354.
Cinchona alkaloids, duty on, 516, 583.
Ciniselli, Dr. Luigi, death of, 192.
Circumcision for incontinence of urine, 394.
Circulation, quinine and the cerebral, 539.
Classen, Alexander, notice of book by, 256.
Clavicle, fracture of, improved appliance, 261.
Cleft palate, treatment of, 538.
Cleborne, Dr. C. J., a double forceps, 95.
Climate of Africa for consumptives, 252.
Climate and diseases of Northern Dakota and Montana, 343.
Club-foot, lectures on, 128; Syme's amputation for, in the adult, 491.
Code of ethics, 312.
Cod-liver oil, assimilation of, 204; emulsion, 312, 582.
Colchicine, injections in ischias, 61.
Coleman, Dr. John S., the metroclyst, or intra-uterine irrigator, 455.
College of Physicians and Surgeons, 239, 528, 552.
Colles's fracture, 180.
Collodion, iodoformized, 238; in enlarged lymphatic glands, 212.
Colon, partial excision of the descending, 275.
Color blindness, 110, 548.
Columbus Medical College, 598.
Comparative pathology, 422.
Compound hare-lip, 210.
Conjunctiva, sarcoma of, 307.
Conjunctivitis, 377.
Connecticut Medical Society, 566.
Constipation, effects by, on rectum and anus, 539; prescription for relief of, 402.
Constitution of climate (Lente), 255.
Consumption, climate of Africa in, 252.
Contagiousness of phthisis, 227.
Convention of American Medical Colleges, 215.
Cook County Hospital, Chicago, reports, 33, 71.
Copaiba resina and Bright's disease, 57.
Cornea, foreign bodies in, 377.
Corson, Dr. Thomas J., obituary notice of, 479.
Coryza, eucalyptus globulus in, 212.
Cotton-wool dressing in Paris hospitals, 178.
Cough, Fothergill's mixture for, 203.
Cowling, Dr. R. O., 499.
Cracked nipples, treatment of, 143.
Cranioclast, Wallace's, 288.
Cranium, compound punctured wound of, case, 233.
Creasotic glycerine in ulcers of cervix uteri, 263.
Cremation, 384; novel view of the question, 69; societies, 424.
Creveling, Dr. J. P., 215.
Crook, Dr. John Taylor, 551.
Croup, membranous, and diphtheria, 12, 540.
Currie, Dr. D. A., a double canulated needle, 406.
Curved flap in plastic operation on the face, 82.
Cushier, Dr. Lysander M., on puerperal convulsions treated by jaborandi, 174.
Cyanide of potassium, poisoning by, 576.
Cynanche, apomorphia in, 405.
Cystitis and acidulated water, 46, 141.
Cystitis, acute, in women, new method of treatment, 560; milk diet in, 143; chronic, 107; artificial vesico-vaginal fistula in, 273.

D.

Da Costa, Dr. J. M., clinical lecture, 313.
Darby, Dr. John Thomson, obituary of, 574.
Death, causes of, in surgical operations, 605.
Death-rate in Russia, 407.
Deformities, rachitic, osteotomy for the correction of, 392.
Deformity of nose, 389.
Deformity produced by a burn, 211.
Delirium tremens, treatment of, 204.
Deleuze, J. P. F., notice of book by, 581.
Dentists in Holland, 552.
Derby, Dr. Richard H., a peculiar form of corneal opacity, 415.
Dextro-quinine as an antiperiodic, 609.
Diabetes, 301; complicated by gangrene of the plantar region, 420.
Dialyzed iron in arsenic-poisoning, 192; hæmatinic properties of, 490.
Diaphragm, acute rheumatism of, 61.
Diastased iron, 408.
Dichloride of ethidene, new anæsthetic, 226.
Diphtheria and acute leucocythæmia, 539; and membranous croup, 12, 540.
Diphtheria, treatment of, 72, 324; free chlorine in, 48; sulphur in, 515.
Diseases, prevailing, of 1879, 488.
Doctors in France, 463.
Double hearing, causes of, 128.
Double forceps, 95.
Dowse, Dr. Thomas Stretch, notice of book by, 580.
Drainage, improved method of, in empyema, 346.
Dropsy, tubal, 355.
Drowned, resuscitating the apparently, 72.
Drunkenness, habitual, cure of, 236.
Dry suture, 119.
Duboisine, the action of, 273; as a mydriatic, 515; in ophthalmic practice, 402.
Duncan, Dr. Wm. F., on naso-pharyngeal catarrh, 77.
Duodenitis, 514.
Duodenum, perforating ulcer of, 188.
Durant, Dr. Ghislandi, notice of book by, 40.
Duty on cinchona alkaloids, 516, 583.
Dwight inquest, 501.
Dysentery, abscess of liver following, 176.
Dispensatory, the National, notice of, 562.
Dyspepsia, salicylic acid in, 576.

E.

Ear disease and sewer-gas, 359.
Earth treatment of tumors, 401.
Eccentric genuclast, 247.
Electricity and exudation of mercury from the skin, 621.
Electric light in the coal-mines, 110.
Electrolysis, permanent removal of hair by, 270; in surgery, 114.
Elephant, pregnancy in, 287.
Elephantiasis arabum, lymphatic, 85.
Eliot, Dr. Ellsworth, reinterment of the remains of John Hunter, 80.
Ellis, Dr. Edward, notice of book by, 280.
Elsberg, Dr. Louis, on contractility of colored blood-corpuscles, 331.
Ely, Dr. W. S., improved method of drainage in empyema, 346; contracted kidney, 416.
Embryology, 169.
Emmet, Dr. T. Addis, notice of book by, 541.
Emphysema, pulmonary, 394; compensatory in acute thoracic diseases, 60.

Empyema, 536; aspiration and open incision without injections, 594; in child two years old, 349; improved method of drainage in, 346; treated by open incision without injections, 321.
Emulsion, cod-liver oil, 582.
Encephalous sarcoma, general, 306.
Engineer, The Plumber and Sanitary, 620.
Enterocele, vaginal, 107.
Epidemics, prevention of, 494; of 1879, 488.
Epidermal cells, peculiar alteration of, 34.
Epiglottis, section of, 609.
Epilepsy, lecture on, 529; cannabis indica in, 325; syphilitic, 252; trephining in, 85.
Episcopal Hospital, Philadelphia, reports, 203.
Epistaxis and ergotine, 312.
Epithelioma, thuja occidentalis in, 59; in Kashmir, 301.
Epithelium of the sudoriferous glands, 35.
Ether, hypodermics of, in sciatica, 178.
Etiquette, medical, 181.
Ergot in pneumonia, 405; hypodermic injections of, for retention of urine, 48.
Ergotine, in the treatment of cerebral apoplexy, 144; in epistaxis, 312; in ophthalmia, 528.
Eserine and atropia, 448; in ophthalmic practice, 376, 402.
Ethics, code of, 312.
Ethylate of sodium, in nævus, 3.
Eucalyptus globulus in coryza, 212.
Evolution and human anatomy, 69.
Eye, injury of, inflicted by beak of owl, 441.
Eye-shade, green, arsenical poisoning from, 192.
Eye troubles in general practice, 361.
Examination for F.R.C.S.E., 480.
Exophthalmic goitre, case of, 127.
Exsection of hip-joint, cases of, 100.
Expert evidence, 523; inefficiency in, 615.
Executions, humanity in, 64.

F.

Face, curved flap in plastic operation on, 82.
Fanning, Dr. W. A., on ingrowing toe-nail, 238.
Feeding-bottle for premature, feeble, or invalid infants, 598.
Female pedestrianism and the Philadelphia County Medical Society, 336.
Femur, curious curvation of lower end of, 187; compound fracture of, 257; intra-capsular fracture of, 307.
Ferments in pancreatic juice, 127.
Ferrier, Dr. David, notice of lectures by, 280.
Fever, malarial, iodine in the treatment of, 539; treatment of, 609.
Fibroids, submucous and interstitial of the uterus, new method of removal, 138.
Fibroma undergoing bony and cavernous change, 588.
Filariæ and leprosy, 275.
Filaria in blood, 354; in the eye of a horse, 104, 166, 215, 591.
Finlay, R. W. [V.S.], the lung-plague, 358.
Finlayson, Dr. James, notice of book by, 66.
Fisher, Dr. C. Irving, does successful vaccination prove that small-pox has not been recently experienced? 574.
Forbes, Dr. William S., 350.
Forceps, the obstetric, 610.
Foster, Dr. Frank P., a combined gynecological table and instrument case, 501.
Fothergill, Dr. J. Milner, notice of essay by, 39; mixture for cough, 203.
Fowler, Dr. Edward P., notice of translation by, 280.
Fowler, Dr. George R., improved hypodermic syringe, 116.
Fox, Dr. George Henry, on the permanent removal of hair by electrolysis, 270.
Fracture, ununited, of humerus, 515; of the thigh, 235.
Frerichs, Dr. Fried. Theod., notice of book by, 580.
Fryer, Dr. B. E., modification of Sims's speculum, 285.
Fuller's tablets, 310.
Funis prævia and the genu-pectoral position, 432.

G.

Gall-stones in etiology of perityphlitic abscess, 518.
Galvanism in chronic ulcers and eczema, 331.
Gangrene of leg and foot, 355; traumatic, hot water in, 257.
Gardner, Dr. R. W., free phosphorus invariably and necessarily changed to hypophosphites before absorption, 190.
Gastro-elytrotomy, 60.
Gegenbaur, Carl, notice of book by, 280.
Gelsemium in hectic, 202.
Genital canal in women, antiseptic treatment of, 554.
Genital function, nervous diseases connected with, in the male, 73, 555.
Genuclast, eccentric, 247.
Genu-pectoral position and funis prævia, 432.
Gerrish, Dr. Fred. H., notice of book by, 38.
Giant birth, 271.
Giant cells, structure and mode of formation in tubercle, 205.
Gibbs, Dr. B. F., on the Public Health Association and National Academy of Sciences, 165.
Giberson, Dr. Charles, notice of death of, 528.
Gibney, Dr. V. P., on cervical pachymeningitis, 20.
Gintrac, Henri, death of, 96.
Girard College, Philadelphia, visiting physician to, 216.
Glaucoma, 377.
Glazier, Dr. W. C. W., new suspension apparatus, 450.
Glycerine, creasotic, in ulcers of cervix uteri, 263.
Godlee, Dr. Rickman John, notice of book by, 582.
Gonorrhœa, injection for, 48.
Gout, salicylate of soda in, 444.
Gout-specific, Lallemand's, 192.
Graafian vesicle during pregnancy, 143.
Grafting in ulceration of the neck of the uterus, 442.
Grandjean, Dr., death of, 143.
Green, Dr. J. Orne, notice of translation by, 40.
Grindelia robusta in asthmatic affections, 594.
Griswold, Dr. Gaspar, intravenous injection of ammonia, 532.
Gritti's supra-condyloid amputation of the thigh, 337.
Gross, Dr. Samuel D., complimentary, 336; dinner to, 375, 379, 499.
Groux, Dr. E. A., 576.
Gynæcology, practical, 256.
Gynæcological operating-table, a new one, 360; table and instrument case, 501.

H.

Habitual drunkenness, cure of, 236.
Hæmaglobinuria, 332.
Hæmoptysis, pyrogallic acid in, 576; treatment of, 204.
Halloran, Dr. M. J., on Guérin's cotton-wool dressing in Paris hospitals, 178.
Hamburg tea, 13.
Hamilton, Dr. A. McLane, on epilepsy, 529; sclerosis of the posterior and lateral columns of the spinal cord, 481; trophic diseases of the spinal cord, 505; clinical lecture, 553.
Hamilton, Dr. George, on the relations of sewer-gas to typhoid fever, 367.
Hammond, Dr. Wm. A., Act of Congress for the relief of, 575; notice of book by, 582.
Hand, congenital absence of, with corresponding atrophy of brain, 251.
Hand-book of nursing for family and general use, 256.
Hanks, Dr. H. T., 191.
Hair, permanent removal of by electrolysis, 270.
Hare-lip, compound, 210.
Hartzell, Dr. M. B., remarks on jaborandi, 358.

Harvey, Dr. P. F., the climate and diseases of northern Dakota and Montana, 343.
Hays, Dr. Isaac, obituary of, 382; resolutions on death of, 455.
Health boards, abolishing them, 353.
Health primers, notice of, 329.
Healy, Dr. James T., treatment of empyema, 594.
Heart, neuroses of, 143.
Hectic, gelsemium in, 202.
Hemiplegia, cerebellar lesion with, 251; saturnine, 396.
Hemorrhage in abortion, treatment of, 220, 232; control of, in amputation of hip-joint, 228; internal, pyrogallic acid in, 60.
Hemorrhoids, treatment by carbolic acid injections, 451, 520.
Hernia, strangulated, case, 89; strangulated femoral, 355; omental, case, 88.
Hewlett, Dr. W. W., on acute infantile intussusception, 149.
Hiccough, pilocarpine in, 94, 142.
Hip-joint, control of hemorrhage in amputation at, 228; mechanical treatment of chronic inflammation of, 435.
Hitzig, Prof., 142.
Hobbie, John R., on Stillman's joint-splint, 404.
Holden, Dr. Edgar, gelsemium for hectic, 202.
Homœopathy and medical instruction, 399; and the National Board of Health, 404.
Homœopathic confectionery, 430; resolutions, 480.
Horse, a substitute for, 360.
Hospital of the University of Pennsylvania, report, 83.
Hospital patients who can pay, 14.
Hospital Sunday, 64.
Hospitals, ventilation of, 452.
Hot water in uterine hemorrhage, 402; in post-partum hemorrhage, 418.
Hotz, Dr. F. C., traumatic aneurism of the eyelid, 559.
Howe, Dr. Joseph W., lecture on transfusion of milk *versus* transfusion of blood, 4; medical reports in newspapers, 430.
Humanity in executions, 64.
Humerus, ununited fracture of, 515.
Hunt, Dr. Ezra M., the prophylactic treatment of individuals as a means of preventing epidemics, 52.
Hunter, John, reinterment of remains of, 80.
Huntington, Dr. Geo., treatment of obstinate vomiting, 595.
Hurd, Dr. E. P., treatment of empyema, 594.
Hutchison, Dr. Jos. C., lectures on club-foot, 1, 28; on the mechanical treatment of chronic inflammation of the hip-, knee-, and ankle-joints, 435.
Hutchinson, Dr. James H., lecture on obscure case of abdominal disease, 123.
Hydriodic acid a substitute for iodide of potassium, 454.
Hydroa from iodide of potassium, 225.
Hydrocele of the femoral canal, 466.
Hydrotherapeutics in hysterical laryngismus, 195.
Hygiene, aural, in public schools, 254; *versus* long trains, 262.
Hypochondria, phosphide of zinc in, 288.
Hyperdistention of abscesses, 25.
Hypermetropia, 377.
Hypodermic injections for piles, 107; of tincture of ergot for retention of urine, 48.
Hypodermic syringe, improved, 116.
Hyoscyamine, Merck's extractive, 96.
Hypoxanthin and lactic acid, 300.
Hysterical laryngismus, hydrotherapeutics in, 195.
Hystero-trachelorrhaphy, indications for, 41.

I.

Iatroleptic medication, 119.
Icteric urine, 144.
Indican in the urine, 350.
Idiocy and trephining, 16.
Iliac artery, thrombosis of primitive, 378.
Illinois State Board of Health, 142.
Illinois State Medical Society, 522.
Improved appliance for fracture of clavicle, 261.
Improved method of drainage in empyema, 346.
Index of library catalogue, Surgeon-General's Office, 254.
Index medicus, 240.
Inebriety, loss of consciousness and memory in, 570.
Infantile convulsions, nitrite of amyl in, 143.
Infantile paralysis, spinal cord in, 274.
Infectious diseases, nature, causes, and prevention of, 577.
Inflammation of the middle ear, primary acute, 281.
Inflammatory sore-throat, 250.
Ingrowing toe-nail, 238.
Inhaler, a convenient one, 23.
Inhalation in pulmonary diseases, 551.
Injection for gonorrhœa, 48.
Insane asylums, female physicians in, 328; reform, 304, 443.
Insane, female superintendents for, 545; restraint in the treatment of the, 155.
Insanity cured by treatment of uterine displacement, 252; juvenile, 544; traumatic, 356.
Insolation and refrigeration, 34.
Insufflation powders *vs.* nasal douche, 143.
Intermittent fever, carbonic acid in, 204.
Intestine, foreign body in, 607.
Intestine, functional obstruction of, 560.
Intestinal occlusion, 321; stenosis as a result of tubercular ulcer, 84.
Intra-capsular fracture of femur, 307.
Intra-uterine injection, death from, 373.
Intravenous injection of milk, 119, 300.
Intussusception, infantile, 149; unsuspected, 357.
Iodide of potassium in obstinate vomiting, 264, 595.
Iodine in malarial fever, 539.
Iodoform, deodorized, 119; perfumed solution of, 432.
Ipecac as an oxytocic, 288.
Iron, topical application of perchloride of, in chancres, 312; which will not rust, 23.
Iritis, serous, 377; syphilitic case of, 225.
Irrigator, intra-uterine, 455.
Irritability of the brain, 350.
Ischias, colchicine, injections in, 61.
Island of Reil, organology of, 183.

J.

Jaborandi, or pilocarpine, in puerperal albuminuria and convulsions, 196; in puerperal albuminuria, 174; remarks on, 358.
Jacobi, Dr. A., on irremedial and fatal effects of chlorate of potassa, 241; a new feeding-bottle for infants, 598.
Jacobson, W. H. A., F.R.C.S., notice of lectures by, 38.
James, Dr. Frank L., apomorphia in cynanche, 405.
Jaundice, obstructive, 349.
Jefferson Medical College, 288.
Jewett, Dr. P. A., acne rosacea, 371.
Johnson, Dr. C. N., ventilation of hospitals, 452.
Joint splint, a new, 322.

K.

Kidney, contracted, 416; extirpation of, 591.
Kipp, Dr. Charles J., a filaria in the eye of a horse, 104.
Knapp, Dr. Hermann, acute inflammation of middle ear, 281.
Knee and ankle-joints, mechanical treatment of, chronic inflammation of, 435.
Knee-joint, aspiration of, 518.
Kohn, Dr. Samuel, the solid rubber bandage in surgery, 39.

L.

Labor with pendulous uterus, 359.
Lachrymal passages, catheterism of, by laminaria digitata, 61.
Lactic acid and hypoxanthin, 300.
Lallemand's gout specific, 192.
Laminaria digitata in catheterism of the lachrymal passages, 61.
Langenbeck, von, Prof., 142.
Laparo-elytrotomy, 59.
Laparo-enterotomy, 143.
Laparo-ileotomy, 321.
Laryngeal paralysis, rare cases of, 85.
Larynx in cases of leprosy, 10; pyriform swelling of, 480; extirpation of, 609.
Law, James, pleuro-pneumonia in cattle, 382.
Lead colic, 394.
Lectures, Müller foundation, 551.
Lee, Dr. Edward W., clinical remarks, 33.
Legs, spasmodic disorders of, 601.
Lente, Dr. Frederick D., notice of book by, 255.
Leprosy, 312; and filariæ, 275; the larynx in cases of, 10; in Spain, 480.
Leucocythæmia, acute, and diphtheria, 539.
Lidell, Dr. John A., a case of exophthalmic goitre, 127.
Lipoma with calcareous deposit, 354.
Litholapaxy of Bigelow, 265, 593.
Lithotomy, medio-lateral, 9.
Lithrotrity at a single sitting, 350; rapid, with evacuation, 265, 500.
Little, Dr. James L., 599.
Liver, pathological conditions of, in relation to pulsation of the vena cava inferior, 34.
Lochia, excessive, 608.
London Pathological Society, 431.
Longworth, Dr. Landon R., death of, 96.
Loomis, Dr. Alfred L., the Adirondack region in the therapeutics of phthisis, 385, 409.
Lumbo-colotomy, 58, 185, 186.
Lung-plague, 358.
Lupus, treatment of, 315.
Lusk, Dr. Wm. T., treatment of hemorrhage in abortion, 220.
Lyman, Dr. Henry M. scarlet fever in Chicago, 413.
Lymphatic glands, enlarged, iodoform and collodion in, 212.

M.

Macdonald, Dr. A. E., 560.
Mackenzie, Dr. Morell, notice of book by, 328.
Maine Medical Society, 552.
Malaria, the increase of, in New York City, 517.
Malpractice, 468, 492.
Mamma, osseous tumor of, 228.
Manhattan Eye and Ear Hospital, decision in legal case, 599.
Mania, periodical, 357.
Mann, Dr. Matthew D., notice of book by, 38.
Marriage, syphilis in relation to, 179.
Marsh, Dr. Sylvester, notice of book by, 328.
Marshall, Dr. Randolph, death of, 239.
Mary Fletcher Hospital in Burlington, Vt., 118.
Massachusetts Char. Eye and Ear Infirmary, Annual Report, 144; Medical Society, 613.
Maury, Dr. Francis Fontaine, obituary of, 575.
McDowell, the Father of Ovariotomy, 494.
McKee, Dr. J. C., foreign body in the intestine, 607.
McLean, Dr. Leroy, an instructive case of ovariotomy, 126.
McQuillen, Dr. John Hugh, death of, 240.
Mears, Dr. J. Ewing, notice of book by, 39.
Meat-pancreas injections in obstinate vomiting, 34.
Meatus, external auditory, calcium sulphide in inflammation of, 552; urinarius, abnormal contractions of, case, 226.
Medical certificates, 493, 578.
Medical charity, responsibility for abuse of, 524, 578, 586.
Medical diagnosis and microscopy, 66.
Medical journals, 143; a new one, 491.
Medical reform in Great Britain, 443.
Medical register, 576.
Medical reports in newspapers, 404, 430.
Medical societies, reports of State, 611.
Medical societies in Chicago, 71.
Medical Society of the County of New York, 66, 132, 281, 524, 586.
Medical Society of the State of Maine, 552.
Medical Society of the State of Massachusetts, 552.
Medical Society of the State of New Jersey, 455, 564.
Medical Society of the State of New York, 15, 37, 62, 86, 93, 95, 110, 155, 156, 232.
Medical Society of the State of Pennsylvania, 542.
Medical Society of the State of West Virginia, 81.
Medico-legal point, tympanic cavity of fœtus, 188.
Memorial tablet, 611, 622.
Memory, loss of, in cerebral softening, 319.
Meningitis, cerebro-spinal, 552.
Metalloscopy, 463.
Metallotherapy, 463.
Metric system, 71, 583, 618.
Michigan Medical Act and the State Board of Health of Illinois, 302; State Medical Society, 616.
Middle ear, acute primary inflammation of, 281.
Midwifery cases, analysis of one thousand, 107; forceps, use of, 106.
Milk a solvent of quinine, 228; chemical and microscopical differences of, in different breasts, 402; drying up of, 421; intravenous injection of, 119, 300.
Milk-diet in cystitis, 143.
Minor, Dr. James M., resolutions on his death, 360.
Mitchell, Dr. S. Weir, spasmodic disorders of the legs, 601.
Moisture as an impurity in air, 423.
Moleschott, Jacob, 142.
Monument to Ephraim McDowell, 499.
Morbus coxarius, treatment by new method, 128.
Morphine, hypodermic injections of, for after-pains, 312.
Mortality among physicians in the East, 81; list of 1878, in Philadelphia, 72.
Mundé, Dr. Paul F., 336; on operation for laceration of the cervix uteri, 41.
Munn, Dr. John, on albuminuria in persons apparently healthy, 297.
Murchison, Charles, M.D., LL.D., obituary notice of, 478.
Muscarine in ophthalmic practice, 402.
Mütter, Dr., of Philadelphia, lectureship on surgical pathology, 47; foundation lectures, 551.
Myelitis, chronic, of anterior horns, 183; recent acute, in an infant, 252.
Myrrh, tincture of, in whooping-cough, 144.
Mysophobia, 426.
Myxo-sarcoma of jaw, 305; of orbit, 259.

N.

Nævus, sodium ethylate in, 3.
Napheys, Dr. George H., notice of work by, 257, 580.
Narcissa, physiological action of, 300.
Nasal douche *vs.* insufflation powders, 143.
Naso-pharyngeal catarrh, varieties and treatment of, 77.
National Board of Health, 578, 584.
National Board of Health and Homœopathy, 404, 621.
National Health Bureau, 108, 253.
National health bill, 326, 398.
National Medical Library, index catalogue of, 260.
Nature, causes, and prevention of the infectious diseases, 577.
Necrosis without suppuration, 59.
Needle, a double canulated, 406.

Neftel, Dr. Wm. B., contribution to the treatment of neuralgias, 97.
Nephritis, pathology of, 91.
Neubauer & Vogel, notice of books by, 579.
Neuralgia, chronic trigeminal, contribution to treatment of, 6, 97.
Neurasthenia, differential diagnosis of, 184.
Neuritis, 574.
Neuritis ascendens, 390.
Neuroses of the heart, 143.
New Hampshire State Medical Society, 560.
New York Academy of Medicine, 18, 41, 47, 136, 138, 142, 167, 308, 331, 376, 426, 447, 476, 497, 527.
New York Hospital, 528.
New York Neurological Society, 20, 183, 330, 424, 600, 619.
New York Pathological Society, 70, 88, 90, 186, 223, 257, 305, 353, 378, 445, 588.
New York State Woman's Hospital report, 272.
Nervous diseases connected with the male genital function, 73.
Nichols, Dr. C. E., incontinence of urine relieved by circumcision, 394.
Ninth Annual Report of the State Board of Health of Massachusetts, 40.
Nipples, vulcanized rubber, dangers of, 179.
Nitrite of amyl, in infantile convulsions, 143; and the opium habit, 99.
Nitro-glycerine as a remedy for angina pectoris, 350.
"Nonne," 430.
North Carolina Board of Health, 574.
Northeastern Dispensary, 456.
Northern Dakota and Montana, climate and diseases of, 343.
Nose, deformity of, 389.
Noyes, Dr. H. D., eye troubles in general practice, 361.
Nurses, training of, 72.

O.

O'Brien, Dr. F. H., a case of aconite-poisoning, 128.
O'Brien, Dr. J. E., surgery in the coal-regions, 117.
Obscure case of abdominal disease, 123.
Obstetric forceps, application antero-posteriorly, 113; imperative, in posterior presentations, 113; in generally contracted pelves, 113, 610.
Obstetric Section of N. Y. Academy of Medicine, 92, 112, 260, 310, 402.
Obstructive jaundice, 349.
Occlusion, intestinal, cured by injections of seltzer-water, 576.
Œsophagotomy, 301.
Œsophagus, polypus of, successful removal, 227.
Ohio State Medical Society, 583.
Oleaginous solutions of chloral, 167.
Oleate of zinc in skin diseases, 123.
Olecranon, fracture of, 144.
Onychia maligna, 307; scrofulosa, treatment of, 129.
Opacity, peculiar form of corneal, 415.
Operating-table, gynæcological, 360.
Ophthalmia, ergotine in, 528; neonatorum, 376; sympathetic, 377.
Opiophagy, 327.
Opium habit and nitrite of amyl, 99.
Opium-poisoning, transfusion of blood in, 252.
Oppenheimer, Dr. Isaac, septicæmia following abortion, 534.
Optic nerve, new point of origin for, 59.
Optic neuritis, 143.
Orbit, myxo-sarcoma of, 259.
Organic matter in water, test for, 192.
Organology of the island of Reil, 183.
Osseous tumor of mamma, 228.
Osseous union in fracture of patella, 275.
Ossification as an accurate means of identification, 457.
Osteomyelitis, treatment of, 396.
Osteophytic rib, 187.
Osteotomy for the correction of rachitic deformities, 392.
Ostitis, acute, development of, 233.
Ovariotomy, 272, 353; anæsthesia in, 549; instructive case of, 126; a series of fifty cases, 397.
Overcrowded asylums, 181; professions, 229.
Ovum, with membranes complete, 260.
Oxalate of cerium in chronic cough, 69.

P.

Pachymeningitis, cervical, 20.
Pachymeningitis hemorrhagica interna, chronic, 258.
Pain, avoidance of, in surgical dressings, 25; after amputation, 120.
Palestine, Dr. H., tinctures from fluid extracts, 70.
Panax quinquefolium, 308.
Pancreatic juice, ferments in, 127.
Paper brace for treatment of special curvatures, 595.
Paracentesis, thoracic, indications against, 299.
Paralysis, pseudo-hypertrophic muscular, 507.
Paralysis, laryngeal, 85.
Paralysis, acute ascending, 85.
Paraplegia in syphilitic subjects, 330, 560.
Paraplegia, syphilitic, 465.
Paronychia, 334.
Partridge, Dr. E. L., placenta prævia, 512.
Patella, osseous union of, 275.
Pathology, surgical, Mütter, lectureship in Philadelphia, 47.
Pathology of urethral stricture, 180.
Pedestrianism, 277.
Pennsylvania Hospital, report, 298.
Pennsylvania Hospital, Philadelphia, Emma Platt *vs.* 216.
Pennsylvania State Medical Society, 504.
Pepper, Dr. Wm., on abscess of liver following dysentery, 176.
Peptone-albumen, vegetable, 274.
Peptone, nutritive value of, 408.
Perineal and uterine lacerations, 405.
Periodical mania, 357.
Perityphlitic abscess treated by aspiration, 371.
Pertussis, treatment of, 490; insufflation of quinia in, 192.
Pessary, imbedded in mucous and fibrous tissue, removal of, 103.
Peters, Dr. John C., prevailing diseases and epidemics of the first quarter of the year 1879, 488.
Peters, Dr. Samuel, some points in the treatment of typhoid fever, 508.
Pharmacopœial Convention, sixth decennial, 432.
Pharmacists, female, in Holland, 263.
Phenomenon of the knee, 372.
Philadelphia College of Physicians, 401.
Philadelphia County Medical Society, 236.
Philadelphia Dental College, 288.
Philadelphia Hospital, 58, 463.
Philadelphia Woman's Medical College, commencement, 287.
Phimosis from probable chancre, 224.
Phlegmasia dolens, 463.
Phosphorus, free, invariably changed to hypophosphites before absorption, 190.
Phthisis, laryngeal, 459, 484.
Phthisis, pulmonary, alcohol in, 622; and the Adirondack region, 385; carbolic acid spray in, 119; changes in the striated muscles in, 35; chaulmoogra oil in, 514; contagiousness of, 227; new classification of, 426; phosphates in, 204; treatment of early, 180.
Physical exhaustion and professional athletes, 86.
Physicians' visiting list, 1879, notice of, 64.
Physician and surgeon, 576.
Physicians and surgeons of the United States, 231.
Pierce, Dr. C. L., on improved appliances for fracture of clavicle, 261.

Piffard, Dr. H. G., further contributions to the treatment of lupus, 193.
Pilocarpine, hypodermic injection for, 167.
Pill-coating, 47.
Pinceaux in laryngeal, 142, an ophthalmic practice, 442; estimate of, in laryngeal, 97.
Pitres, 644.
Placenta praevia, 385, 502; suggestion as to the management of, 175.
Plaster-jacket, 167; the mug, 458.
Plaster-pencil, 167.
Post, Dr. A. H., on carbolic acid and permanganate of potash gas, 564.
Poynton, Dr. W. J., opinion of work by, 74.
Pressure-point, 167.
Prince, Dr. A. E., on the physiological action of the cerebellum, 369.
Prostatic abscess, perforation of, 167.
Prostatitis, 167; in the aged, 168; report on, 447; notes of summary, treatment, etc., 561.
Protecting the eyebrows of patients, 336.
Pseudoplasties, 167.
Pulmonary disease successfully treated, 167.
Pulse and pyrexia, tongue as, 109.
Purdy, Dr. C. T., observation of his gases, 146; experiments for the estimation of metallic deleterious of the lung, 462.
Pyaemia of the veins, 336.
Pyle, Dr. A., abdominoscopy of the area, 468; on some of the surgical aspects of the aching ovaries, 148; instantaneous values of water exclusively treated for diabetes mellitus, 69.
Pyle, Dr. George T., case of twin births, wife to husband all alone dates, 147; amputation followed by spontaneous, without hemorrhage, 526.
Pyle on urine, abnormality, 167; value, density in, 118; quantity of, 168.
Pyrexia in the treatment of burns, 478, 487.
Pyrexia, Dr. H. C., treatment of pericardial exudate in tuberculosis, 147.
Pyle, a theory of the urine containing organisms, 386.
Pyrethrum, how to make, 474.
Pyrogenium, Streptococcus Scarlatinae, 146; in the treatment of, 147.
Pyrosmosis, 167.
Pyrotechnic Hospital, medical council, 167.
Pyrotechnic exhibition at, 168, 476.
Pyrexia, 167; a surgical disorder, 119.
Pyrexia, condition, 167.
Pyrexia and constitutional surgery, 167.
Pyle, Dr. W. Lindsay, Secretary of the Society of Physicians and Surgeons, 476.
Proceedings of the Practice Medical Association, 167.
Proceedings of the Royal Society Medical Section, 168.
Proceedings of the Medical Society of Pennsylvania, volume on, 168.
Professional advertising, a new light upon, 168.
Professional silliness and politeness, 56.
Professional responsibility of Dr. Hugh Cameron, 147.
Professional responsibility of Dr. Hugh Cameron, 147.
Professional responsibility of Dr. Hugh Cameron, 147.
Professional secrecy, responsibility for, 147; responsibility and, 147.
Professor's lecture, examination of, 476.
Progressive Medical Association, 167.
Public Health Association and medical Society, 47.
Public health, 7.
Public Health Association in 1886, Conference of, 476.
Pulmonary gangrene, treatment of, 476.
Pulse, Dr. C., lecture with accompanying illustrations on the nature, 168.
Pyrexia, abdominal wound, 168, 477.
Pyrexia, removal of the ovary, 477.
Pyrexia used in treating wounded, 47.

Q.

Quarantine regulations, 476.
Quarantine, regulations, 476.
Quarter Century Medical Society, 167.
Quarter and a substitute, tubules of, 226.
Quinine and the cerebral circulation, 369; duty on, 516, 518; modifications of in pertussis, 192; milk a solvent of, 128; and antipyrin, 47.

R.

Rabbit, Dr. Geo. W., a blind visit of the cremation question, 480.
Railway system, fatal case of, 61.
Rankin, Dr. A. C., 191.
Ransom, Dr. A. L., causes of death in surgical operations, 467; notice of work by, 414.
Rectal administration, supplementary, by means of deodorized blood, 168.
Rectum, effect of constipation on, 549; gangrenous colostomy above, 480.
Reese, Dr. John J., lectures on the personal identity of the living and the dead, 468, 497.
Refrigeration and ventilation, 74.
Reid, George, resignation of, 476.
Renal calculus, 477.
Report on the Needs known as Cases, 177.
Reproducing the appendicular hemorrhage, 72.
Resuscitation, gentle inspiratory, 61.
Rheumatism, 168.
Rhode Island Medical Society, 476.
Richards, Dr. Geo. A., notice of death of, 48.
Richardson, Dr. Benjamin, lecture on tracheotomy, 131.
Ringwald, Dr. A. O., notice of work by, 592; functional nervous disorganization, 477.
Rodney, case of, 168.
Roe, Dr. J. O., on pneumonia (cited), 31.
Rogers, Dr. J. C., on pneumonia (cited), 31.
Rogers, Dr. Lewis, on surgical practice, 519.
Rush Medical College, 168, 187.
Russian criminal statistics, 14.

S.

Sacrococcygeal tumour, 168.
Sagrado, Prof. A. F., 168.
Salicylate of soda in gout, 168.
Saline in the case of gastric ulcer, 168.
Saline and the digestion of starch, 168.
Salivary secretion of the parotid animals, 14, 168.
Salivary Secretion, Investigation, 168.
Sanguinaria as a local anaesthetic, 152; poisoning by, 152.
Sanitary Association, 168.
Sayre, Dr. Lewis F., compound sacro-iliac, 534.
Scarpa, Dr. Charles A., on the therapeutic origin of nail abscess, 261; cholecystitis as acute colic disease, 140.
Scarpa, A. E., poison of gout by, 47.
Scarpa, a substitute, 7.
Scarlet fever as a fungus, 478; and the parotid salivary, 47; treatment of, during hospital isolation, 478, 479; prognosis of, 96, 478; sulphurous acid in, 96.
Scarlet fever, 96.
Schools, ventilation, strength of air currents, 168.
Science, the union should together in, 504; auxiliary respective, 168.
Scientific, Dr. Hermann, notice of book by, 48.
Scientific, Dr. Hermann, on the treatment of internal suffering, 168.
Scientific, physiology of, the consequences of, 168; hypothetical, 168; surgical treatment for, 168.
Sclerosis of the spinal cord, 168.
Scrofulous, treatment by leprosy, 47.
Scrofulous, tuberculosis in, 168.
Scrotum, 168.
Scrotum, Dr. E. L., on a physiological basis, universal treatment of chronic suppurative meningitis, of, on spinal puncture in epidemic cerebro-spinal, 168; being on "Nursing," 452.
Seaman, Dr. E. L., compound locks of, 168.
Septicaemia following abortion, 168.
Serum, the antitoxic function, 168; and typhoid fever, 168.

Seymour, Dr. C., intestinal occlusion, laparo-ileotomy, 321.
Sex in utero, determination of, 94.
Shakspeare on the practice of medicine, 116.
Shannon, Dr. S. H., death of, 95.
Sherry, Dr. Richard M., notice of book by, 581.
Shock, new and successful treatment of, 48.
Shoemaker, Dr. John V., clinical lecture on seborrhœa, 148.
Shrady, Dr. Geo. F., the curved flap in plastic operations on the face, 82; a new subcutaneous saw, knife, and bone-rasp, 24; editorial articles by, 15, 36, 37, 62, 86, 108, 109, 130, 154, 181, 229, 230, 253, 277, 278, 301, 326, 328, 375, 398, 400, 424, 448, 467.
Sims, Dr. J. Marion, and his operations in Vienna, 141; visit to Berlin, 791.
Sim's speculum, modification of, 285.
Sinapisms, substitute, caused by muriate of pilocarpin, 91.
Skull, novel distribution of arteries at base of, 379.
Slippery-elm bark in treatment of tape-worm, 168.
Small-pox, power of carbonic acid to abort pustulation of, 284.
Smith, Dr. A. H., on supplementary rectal alimentation, 308.
Smith, Dr. Franklin B., removal of a pessary firmly imbedded in mucous and fibrous tissue, 103.
Smith, Dr. Heywood, notice of book by, 270.
Smith, Dr. Wm. Mathias, on the legality of meetings of the State Medical Society, 93.
Smuggling, novel method of, 219.
Soda, [illegible] and [illegible] tartrates, 63.
Sodium salicylate in rheumatic fever, 324.
Southern [illegible], 45.
Spasm, 543.
Spinal accessory nerve, diseases of, 274.
Spinal cord in infantile paralysis, 274; secondary degeneration of, 505; secondary inflammation of, 490; sclerosis of posterior column of, 481.
Spinal curvature, continuous extension in, 132, 189.
Spinal sclerosis, 464; diagnosis of, 322; multiple, 313.
Spirit of walnut as an anti-emetic, 128.
Squibb, Dr. E. R., State Medical Society and Nominating Committee, 94.
St. Francis' Hospital, notice of report, 400.
St. Michael's Hospital, notice of report, 407.
St. Thomas's Hospital, London, report, 324.
Starch, digestion of, and saliva, 119.
State Board of Health, 278.
State Board of Health of Illinois, and the Michigan Medical Act, 302.
State [illegible], report on, 475.
[illegible]
Sternberg, Dr. Geo. M., the Public Health Association and yellow fever, 45.
Sternum, the man without one, 576.
Stevens triennial prize, subjects for, 408.
Stillé, Dr. Alfred, lectures on acute articular rheumatism, 32, 49; lectures on yellow fever, 195, 217, [illegible]
Stillé's [illegible], 464.
Stillman, Dr. Chas. F., on continuous extension in treatment of spinal curvature, 189, a new [illegible] 322.
Stimulant [illegible], 349.
Stone in the bladder, selection of an operation for, 275.
Strabismus, 72.
Strawberries in cholera infantum, 143.
Striated muscles, changes in, in phthisis, 35.
Stricture of the urethra, reflex vertigo from, 373.
Subcutaneous saw, knife, and bone-rasp, 24.
Substitution for hanging, 579.
Sudoriferous glands, epithelium of, 35.
Suicide of a yellow-fever physician, 192.
Sulphates of copper in skin diseases, 284.
Sulpho-thymate of quinia, 144.
Sulphur in diphtheria, 515.
Sulphurous acid in pruritus vulvæ, 178; in scarlatina, 192.
Summers, Dr. T. O., notice of book by, 329.
Supra-condyloid, amputation of thigh, 337.
Supra-orbital tic and chloroform, 275.
Supra-pubic operation for removal of vesical calculi, 234.
Surface thermometry, 227.
Surgeon-General of the Navy, report of, 155.
Surgeon-General's Office, index of library catalogue, 254.
Surgery, antiseptic, 356; in the coal-regions, 117.
Surgical operations, causes of death in, 605.
Surgical uses of the actual cautery, 289.
Surgical Section, N. Y. Academy of Medicine, 114, 208, 210, 333, 450.
Suspending apparatus for Pott's disease, 262.
Swords, Dr. R. S., snake in the eye of a horse, 166.
Sympathetic changes in a case of progressive pernicious anæmia, 373.
Syphilis in relation to marriage, 179.
Syphilitic brain disease, 553; epilepsy, 252; infection without characteristic induration, 224.

T.

Tænia mediocanellata, 286.
Tape-worm, 407; in child three years old, 72; in cucumber, 311; slippery elm bark for, 168; treatment of, 264.
Tagan, von, Dr. C. H., cystitis and acidulated water, 46.
Talalgia, treatment of, 490.
Taylor, Dr. C. Fayette, on the eccentric genuclast, 247.
Taylor, Dr. Isaac E., complete anteversion and anteflexion of uterus at full term, 112.
Tayuya in scrofulosis, 61.
Teeth, age and order of development of, 457; human, microscopic anatomy of, 187.
Tellor, Dr. Lloyd V., notice of book by, 582.
Tenaculum scissors, 503.
Tendon-reflex, 351, 374.
Tendon-reflexes in children, 372.
Tendon-reflex phenomena, study of, 273.
Tetanus and chloroform, 143.
Tetanus, pathological anatomy of, 425.
The doctor woman, 394.
The Dwight inquest, 497.
The metroclyst, 455.
The plague in Russia, 109, 131, 230.
The Plymouth and yellow fever, 376.
The tenement-house question, 352.
Therapeutics, modern medical, 257.
Thermometry, surface, 227.
Thomas, Dr. T. Gaillard, on abdominal pregnancy, 18; on new method for removing fibroids of the uterus, 138.
Thompson, Sir Henry, correspondence of, 528; rapid lithotrity with evacuation, 501.
Thoracic diseases, acute compensatory emphysema in, 60.
Thrombosis of primitive iliac artery, 378.
Thuja occidentalis in epithelioma, 59.
Thymol, use of, 227.
Tinctures from fluid extracts, 70.
Toland, Dr. H. H., notice of book by, 581.
Tonsillitis, simple, 250.
Tonsils, massage of, 496.
Torsion, 61.
Tracheotomy for tumor of larynx, 403; in infants, 372; lecture on, 121.
Trachoma, 376.
Training of nurses, 72.
Transactions of the American Dermatological Association, notice of, 582.
Transactions of American Medical Association for 1878, notice of, 581.
Transactions of the Medical Association of Georgia, 278.
Transactions of the Indiana State Medical Society, 39.
Transactions of the Kentucky State Medical Society, 287.

Transactions of the New Hampshire Medical Society, 65.
Transactions of the Massachusetts Medico-Legal Society, 39.
Transactions of the Ohio State Medical Society, 255.
Transactions of the Medical Society of the State of Pennsylvania, 256.
Transactions of the Pathological Society of Philadelphia, 41.
Transactions of the Medical Society of the State of Tennessee, 329.
Transactions of the Medical Society of the State of West Virginia, 255.
Transfusion of blood in opium-poisoning, 252.
Transfusion of milk *versus* transfusion of blood, 4.
Traumatic insanity, 356.
Traumatic origin of cold abscess, 293.
Treatment of wounds by dry and infrequent dressings, rest, and pressure, 129.
Trepanning in epilepsy, 85.
Trephining and idiocy, 16.
Trichinosis, 384.
Trichinous pork, 421.
Tubal dropsy, 355.
Tubercle, structure and mode of formation of giant cells in, 205.
Tuberculosis, bucco-pharyngeal, 538; pyriform swelling of larynx in, 480.
Tubercular ulcer and perforation of appendix vermiformis, 228; in etiology of intestinal stenosis, 84.
Tumors, the earth treatment of, 401.
Twin births, case of, with an interval of three days, 347.
Tympanic cavity of fœtus, 188.
Typhoid fever, 348; diagnosis and prognosis, 298; points in the treatment of, 508.
Typhoid fever and sewer-gas, 367.
Typho-malarial fever, remarks on, 267.

U.

Unguentum vaselini plumbicum, 168, 213.
Union Medical Society, 621.
University of Iowa, medical department, 263.
University of the City of New York, medical department, 70, 192, 216, 527, 599.
University of Pennsylvania, graded examination in medical department, 120, 144, 287, 528, 551.
Ununited fracture, union in, 240; treatment by hypodermic injection, 301.
Urethra, foreign body in, case, 83.
Urethral dilator, 430.
Urethral stricture, pathology of, 180.
Urethral surgery, cases of, 199.
Urticaria and quinine, 47.
Urine, chylous, 354; incontinence of, relieved by circumcision, 394; indican in, 350; retention of, hypodermic injection of ergot for, 48; retention of, cured by metallo-therapeutics, 397.
Urine-thermometer, 466.
Uterine applications, 456.
Uterine displacement, 354; insanity cured by treatment of, 252.
Uterine sound, new, 119.
Utero-gestation, prolonged, 310.
Uterus, adenoma of, 13; dilatation of cervix preparatory to labor, 92; operation for laceration of cervix of, 41; total extirpation of, 372, 592; submucous and interstitial fibroids, new method of removal, 138; labor with pendulous, 359; pendulous, at full term, 112; treatment of ulcers of cervix, 263; obstinate ulceration of neck of, cured by grafting, 442.
Uvula, œdema and congestion of, 250; phlegmonous inflammation of, 250.

V.

Vaccination in the public schools, 24; is it dangerous? 562; successful, its relation to small-pox, 573.
Vaginal applications, 456; enterocele, 107.
Valvular lesions of the heart, 57.
Van Buren, Dr. Wm. H., on rapid lithotrity, 265.
Vance, Dr. Asc. M., treatment of Pott's disease and lateral curvature, 595.
Varicose veins, treatment for radical cure, 56.
Ventilation of hospitals, 452.
Vertigo, reflex, from stricture of the urethra, 373.
Vena cava inferior, pulsation of, in its relation to pathological condition of the liver, 34.
Vesical calculus, removal by Bigelow's method, 90, 235, 259; removed by the supra-pubic operation, 234; case of, 257; searcher for, 230.
Vesico-vaginal fistula, artificial, in chronic cystitis, 273; spontaneous cure of, 92.
Vital statistics of New York, 69.
Vocal cords, deviation in the development of, 47.
Volume XV., close of, 612.
Vomiting, obstinate, iodide of potassium in, 264; obstinate, meat-pancreas injections in, 34; obstinate and small doses of iodide of potassium, 595; a symptom in gastric disease, 313.
Vulcanized india-rubber in blepharitis, 144; rubber nipples, dangers of, 179.
Vulvar pruritus, prescription for, 13.

W.

Wall-paper, dangerous colors in, 576.
Ward, Dr. J. M., perineal and uterine lacerations, 406.
Warm-water treatment, 119.
Water, acidulated, and cystitis, 46; test for organic matter in, 192.
Webb, Dr. W. H., notice of book by, 280.
Weir, Dr. Robt. F., on Gritti's supra-condyloid amputation of thigh, 337.
Weisse, Dr. Faneuil D., on antiseptic surgery, 269.
Wells, Dr. J. T., ergot in the treatment of pneumonia, 405.
West Chicago Medical Society, report, 185, 186, 356.
White, Dr. C. B., on typho-malarial fever, 267.
Whittaker, Dr. James T., notice of book by, 329.
Whooping-cough, treatment by the tincture of myrrh, 144.
Wilkes, Dr. George, notice of memoir of, 47.
Wilson, Dr. Joseph, notice of book by, 581.
Woman's Hospital, Philadelphia, report, 418.
Woman's Hospital, State of Illinois, 288.
Woman's Medical College of City of New York, 528.
Wood, Dr. George B., obituary notice, 335; bequests to the University of Pennsylvania, 357; his bequests, 408.
Wood, Dr. H. C., Jr., notice of book by, 281.
Wood, Dr. Jacob A., obituary, 550.
Wood, Dr. Thomas F., North Carolina Board of Health, 574.
Woodworth, Dr. John M., obituary of, 284.
Writer's cramp, conclusions from the study of one hundred and twenty-five cases, 244.
Wyeth, Dr. John A., on medio-lateral lithotomy in a complicated case of vesical calculus, 9; on the treatment of spinal curvature by continuous extension, 132; reply to Dr. Stillman, 215; notice of book by, 581.
Wylie, Dr. W. Gill, hydriodic acid a substitute for iodide of potassium, 454.

Y.

Yellow fever, 569.
Yellow fever and the United States steamer Plymouth, 376, 432; and the Public Health Association, 45; fund, 24, 94, 215; germ, 119; investigation, 36, 130; lectures on, 195, 217; nature of the poison of, 538; preventing epidemics of, by prophylactic treatment of individuals, 52; and quarantine, 583.

Z.

Zinc, phosphide of, in hypochondria, 288.

THE MEDICAL RECORD.

A Weekly Journal of Medicine and Surgery.

EDITED BY

GEORGE F. SHRADY, A.M., M.D.

Volume 16.

JULY 5, 1879.—DECEMBER 27, 1879.

NEW YORK:
WILLIAM WOOD & COMPANY
27 GREAT JONES STREET.

TROW'S
PRINTING AND BOOKBINDING COMPANY,
201–213 *East* 12*th St.*,
NEW YORK.

LIST OF CONTRIBUTORS TO VOL. XVI.

Allport, Dr. Frank, Sycamore, Ill.
Andrews, Dr. E., Chicago, Ill.
Ashurst, Dr. John, Philadelphia, Pa.

Barrett, Dr. A. R., Richmond, Va.
Bartholow, Dr. Roberts, Philadelphia, Pa.
Beane, Dr. F. D., New York.
Beard, Dr. George M., New York.
Bigelow, Dr. Henry J., Boston, Mass.
Bigelow, Dr. H. R., Washington, D. C.
Bodenhamer, Dr. W., New York.
Bozeman, Dr. N., New York.
Brandt, Dr. Wm. E., Hanover, Ind.
Bridge, Dr. Norman, Chicago, Ill.
Brown, Dr. C. W. M., Elmira, N. Y.
Bull, Dr. C. S., New York.
Burke, Dr. Martin, New York.
Burrall, Dr. F. A., New York.
Busey, Dr. S. C., Washington, D. C.
Buttles, Dr. M. S., New York.

Callan, Dr. P. A., New York.
Caro, Dr. S., New York.
Carpenter, Dr. Wesley M., New York.
Carroll, Dr. Alfred L., New Brighton, N. Y.
Chamberlain, Dr. W. M., New York.
Chambers, Dr. T. Roland, New York.
Chapman, Dr. E. N., Brooklyn, N. Y.
Clements, Dr. B. A., Surg. U. S. A.
Cornwell, Dr. H. G., Youngstown, O.
Cowling, Dr. James, Houston, Texas.
Crampton, Dr. Henry E., New York.
Cushier, Dr. Elizabeth M., New York.
Cutter, Dr. George R., New York.

Da Costa, Dr. J. M., Philadelphia, Pa.
Dana, Dr. C. L., New York.
Dawson, Dr. W. W., Cincinnati, O.
Dorran, Dr. W. M., Mount Vernon, N. Y.
Douglas, Dr. Geo. C., Salt Lake City, Utah.
Dyer, Dr. John L., Washington, D. C.

Edwards, Dr. Emma W., Newark, N. J.
Eldridge, Dr. S., Yokohama, Japan.
Ely, Dr. Wm. S., Rochester, N. Y.

Fehr, Dr. Julius, Hoboken, N. J.
Forrest, Dr. W. E., New York.
Foster, Dr. Frank P., New York.
Friedrich, Dr. J. J., New York.

Garland, Dr. G. M., Univ. Vermont.
Geddings, Dr. W. H., Aiken, S. C.
Gilman, Dr. John H., Lowell, Mass.
Goddard, Dr. C. C., Texas.
Goodell, Dr. Wm., Philadelphia, Pa.
Goodfellow, Dr. G. E., Oakland, Cal.
Goodwillie, Dr. D. H., New York.
Gouley, Dr. J. W. S., New York.
Graham, Dr. Douglas, Boston, Mass.
Gray, Dr. L. C., Brooklyn, N. Y.
Griswold, Dr. Gaspar, New York.
Gross, Dr. Samuel D., Philadelphia, Pa.

Hachenberg, Dr. Geo. P., Austin, Texas.
Hamilton, Dr. J. W., Brooklyn, N. Y.
Hanks, Dr. H. T., New York,
Hemingway, Dr. S., New York.
Hodgkin, Dr. J. B., Washington, D. C.
Hoffman, Dr. A. C., Jersey City, N. J.
Howland, Dr. H. H., New York.
Hughes, Dr. C. H., St. Louis, Mo.
Hunt, Dr. C. H., Stanwood, Iowa.
Hutchinson, Dr. Wm. F., Providence, R. I.

Jacobi, Dr. A., New York.
Jacobi, Dr. Mary-Putnam, New York.
Judson, Dr. A. B., New York.

Kane, Dr. John J., Ass't Surg. U. S. A.
Keller, Dr. J. M., Hot Springs, Ark.
Keyt, Dr. A. T., Cincinnati, O.

La Rue, Dr. A., Hillsboro, W. Va.
Lathrop, Dr. G. H., Wurtsboro, N. Y.
Lefferts, Dr. Geo. M., New York.
Lente, Dr. F. D., New York.
Leo, Dr. Simeon, New York.
Lindsley, Dr. Van S., Nashville, Tenn.
Little, Dr. James L., New York.
Lyman, Dr. Henry M., Chicago, Ill.

Macdonald, Dr. A. E., New York.
Manley, Dr. T. H., Lawrence, Mass.
Martin, Dr. Henry A., Boston, Mass.
Mason, Dr. Erskine, New York.
Mather, Dr. E. E., Williamstown, Mass.
Mattison, Dr. J. R., Brooklyn, N. Y.
Maynard, Dr. Wm. J., Chicago, Ill.
McCreery, Dr. Geo., New York.
McCreery, Dr. John A., New York.
McFalls, Dr. D., Park City, Utah.
Mercer, Dr. A. Clifford, Syracuse, N. Y.
Merritt, Dr. John, Brooklyn, N. Y.
Meyer, Dr. Joseph, New York.
Miller, Dr. S. M., Philadelphia, Pa.
Mills, Dr. C. K., Philadelphia, Pa.
Morjé, Dr. B., New York.

Moore, Dr. W. O., New York.
Morton, Dr. Wm. J., New York.
Mudd, Dr. Joseph A., New Salem, Mo.]
Murchison, Dr. Chas., London, Eng.

Naylor, Dr. W. H., New York.
Neftel, Dr. Wm. B., New York.

Otis, Dr. Fessenden N., New York.
O'Toole, Dr. Michael C., San Francisco, Cal.]

Pallen, Dr. Montrose A., New York.
Parker, Dr. W. Thornton, Lenox, Mass.
Peters, Dr. John C., New York.
Piffard, Dr. H. G., New York.
Pomeroy, Dr. O. D., New York.
Poole, Dr. Thos. W., Ontario, Canada.
Poore, Dr. Chas. T., New York.
Porter, Dr. P. B., New York.
Porter, Dr. Wm., St. Louis, Mo.
Post, Dr. A. C., New York.
Post, Dr. Geo. E., Beirût, Syria.
Putzel, Dr. L., New York.

Ranney, Dr. A. L., New York.
Reyburn, Dr. Robt., Washington, D. C.
Rhoads, Dr. M. A., Reading, Pa.
Robinson, Dr. Beverley, New York.
Rockwell, Dr. A. D., New York.
Roe, Dr. J. O., Rochester, N. Y.
Roosa, Dr. D. B., St. John, New York.

Satterthwaite, Dr. T. E., New York.
Schweig, Dr. Geo. M., New York.
Scofield, Dr. D., Washington, Iowa.
Seguin, Dr. E. C., New York.
Sexton, Dr. Samuel, New York.
Shrady, Dr. Geo. F., New York.
Simmons, Dr. D. B., Yokohama, Japan.
Smith, Dr. A. A., New York.
Smith, Dr. J. D. S., Bridgeport, Conn.
Smythe, Dr. A. G., Baldwin, Miss.
Stanton, Dr. M., Syracuse, N. Y.
Starr, Dr. Louis, Philadelphia, Pa.
Stein, Dr. Alex. W., New York.
Stillman, Dr. Chas. F., Plainfield, N. J.
Stimson, Dr. L. A., New York.
Sweet, Dr. A. L., Southold, N. Y.

Tanner, Dr. J. A., Jr., U. S. A., Boston, Mass.
Thomas, Dr. T. Gaillard, New York.

Upshur, Dr. John N., Richmond, Va.

Van Derveer, Dr. A., Albany, N. Y.
Van Santvoord, Dr. R., New York.

Waite, Dr. T. C., Pittsburg, Pa.
Walker, Dr. Edwin, Evansville, Ind.
Ward, Dr. J. M., Cornelia, Mo.
Warner, Dr. E. S., New York.
Warren, Dr. Joseph H., Boston, Mass.
Watson, Dr. B. A., Jersey City, N. J.
Webster, Dr. David, New York.
Weir, Dr. Robert F., New York.
Wendt, Dr. E. C., New York.
Wheeler, Dr. C. S., Brattleboro, Vt.
White, Dr. F. V., New York.
Whittaker, Dr. James T., Medical College of Ohio.
Williams, Dr. C., New York.
Williams, Dr. S. W., New York.

Institutions and Societies from which Reports have been Obtained.

American Dermatological Association.
American Gynecological Society.
American Neurological Association.
American Ophthalmological Society.
American Otological Society.
American Public Health Association.
Bellevue Hospital, New York.
British Medical Association.
Chicago Gynecological Society.
Chicago Medical Society.
Children's Hospital, Philadelphia, Pa.
Episcopal Hospital, Philadelphia, Pa.
German Hospital, Philadelphia, Pa.
Hospital of the University of Pennsylvania.
Jefferson Medical College Hospital, Philadelphia, Pa.
Medical Society of the County of New York.
Metropolitan Throat Hospital, New York.
New Hampshire Medical Society.
New York Academy of Medicine.
New York Hospital.
New York Neurological Society.
New York Pathological Society.
Obstetrical Society of London, Eng.
Pennsylvania Hospital, Philadelphia, Pa.
Philadelphia Academy of Natural Sciences.
Philadelphia College of Physicians.
Philadelphia Hospital.
Preston Retreat, Philadelphia, Pa.
West Chicago Medical Society.
Woman's Hospital, New York.

THE MEDICAL RECORD.

VOL. XVI. JULY 5, 1879. No. 1.

Original Lectures.

EXOPHTHALMIC GOITRE OCCURRING IN A CHILD, AND FOLLOWED BY ST. VITUS' DANCE.

A CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL.

BY A. JACOBI, M.D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—The history of the case before us is as follows: Hattie Wagner, aged thirteen years, and a native of the United States, was admitted to the hospital on the 25th of January, 1879. Her father, æt. 58, is living, and in good health. Her mother, æt. 40, is living, but has never been a strong woman. She has always been nervous and anæmic, and has had four dead and eight living children. Our patient has always been what is commonly called "a delicate child." She has had two falls, and both times she struck upon her head; the first occurred when she was *five*, and the second when she was *seven* years old. Her mental condition has been fair. Some years ago she had exophthalmic goitre, for which she was treated at the Mt. Sinai Hospital. On December 30, 1878, she had an attack of pain in her right shoulder, and soon after lost the use of her right hand and leg. She had been attending upon her sick mother, and had not taken much food for several days immediately preceding the attack. On admission, it was noticed that there was some swelling of the thyroid gland, the left lobe being most prominent. The action of the heart was irregular; no valvular murmurs were found. The lungs appeared to be normal. Her gait was characteristic of well-marked chorea, and the choreic movements were almost continuous. When asleep the movements are usually suspended, but not invariably. She was put upon the use of iron. On February 8th she suffered considerably from headache, and bromide of potassium was ordered. On March 1st she had not had headache for some time, and the chorea was improving.

The case before us is the twelfth, occurring in children, which has been recorded in medical literature. Three of the eleven, previously related, are my own, and have been published in the June number, 1875, of the *American Journal of Obstetrics and Diseases of Women and Children*. The scarcity of the cases and the interest connected with them will be an excuse for a recital of their histories in this connection. Mary S., Bolton, Lake George, came under my observation in the summer of 1874, during my residence in the neighborhood of that village. She was then ten years old, and had suffered from her symptoms "for years." She was of average size; well developed, pale, intellectual; a good scholar, a poor eater. Now and then her face and her feet would swell. The functions of her rectum and bladder were normal. She complained of great weakness; could not walk without an effort; the heart would beat violently; and dyspnœa set in on slight exertion. The dulness over her heart was too extensive by one half; the shock perceptible to both hand and eye from the third to the sixth intercostal spaces. A loud systolic murmur was audible all over the chest, covering the diastole. It was of equal strength over mitral and aortic regions, and extended into the carotids. The radial pulse was feebler than normal. There was no history of any disease except malaria; no rheumatism. No swelling of the neck, no affection of the eye was noticed at that one visit she paid me; at all events, it must have been very slight, if it was present at all. Lungs were normal; nor could anything abnormal be discovered in her abdominal viscera. Under the circumstances my diagnosis was that of a general chronic endocarditis, and the prognosis a very grave one. For a long time, during the following autumn and winter, she took iron and digitaline, and followed such dietetic rules as I saw fit to give. She called upon me again the day I left that part of the country, in the early part of September, 1875. To my astonishment she was better to all appearances in her general health than the previous year. She could walk better, and her appetite had improved. The local symptoms were the same everywhere. The size of the heart was perhaps a little less; the murmur as loud and extensive as last year. Besides, I noticed at once a slight protrusion and immobility of her eyeballs, a staring look, and somewhat swelled lower eyelids, and a considerable goitre. The diagnosis was changed into that of Graves's disease, and the prognosis corrected accordingly. Three months she took tinct. ferri and digitalis regularly, and when, in January, 1876, I received her news, they were favorable. Since that time she has been treated now and then, but she has not outgrown her hydræmia and some slight cardiac murmur, to this very day.

Dr. Moeller, of West Thirty seventh street, introduced to me a little patient of nine years, Louisa W., whom he had attended for several months, a few years ago. When presented to me she was greatly improved already. Still she was anæmic, and of small stature; smart, and a good scholar. The contractions of her heart were both visible and palpable over three intercostal spaces—the pulsations of both carotids unusually distinct. The systolic murmur was strong and audible over the whole chest, both anteriorly and posteriorly. Her eyes did *not* protrude. The thyroid gland was slightly swollen on the left side; very much so, and protruding, on the right. It was not the first time, however, that I noticed a unilateral swelling of the thyroid gland in Graves's disease. She had steadily improved under the use of iron and digitaline (gr. $\frac{1}{6}$ daily) and quinia, and roborant diet, and thus the treatment was continued. When I saw her four months afterward, her general appearance was about normal; still the child was small, her eyes did not protrude, her goitre was not visible to the left of the median line, and less marked than formerly on the right; her heart's action was less impetuous, and the murmur less loud and less extensive. Of her complete recovery I entertained no doubt.

The third case is an exact counterpart of the one just mentioned. She was a patient of the clinic, and its records contain the few notes which were taken at

her two visits. She was nine years old, of average size, not remarkably anæmic. Heart loud and impetuous; systolic murmurs very strong and extensive; eyes not protruding; the right lobe of the thyroid considerably, the left but slightly swelled. Nothing was known about a previous disease, nor was there any discoverable at the time of our examination. A similar treatment was resorted to, with what effect we have had no means to ascertain since.

The main symptoms of the disease, when found in children, are the same as reported by Flajani, Parre, and Adelmann, and finally appreciated in their full value by Graves and Basedow. It is well known to you that the complex symptoms are palpitation and enlargement of the heart, swelling of the thyroid gland, and protuberance of the eye. In most of the cases all the symptoms are present; in some, one or the other may be absent. Particularly is that the case with regard to the swelling of the thyroid gland and the exophthalmos; the latter perhaps more so than the former. In fact, in a number of cases of children affected with the disease, the latter was either absent, or but imperfectly developed. The area of dulness on percussion over the heart is considerably enlarged. Its shock is seen over two or three, sometimes more, intercostal spaces. It is not always very strong, but distinctly visible. There are murmurs all over the heart, and over a greater portion of the large arteries and veins. Both arteries and particularly veins, are found dilated. Even the arteries of the retina have been found enlarged. The pulse is very frequent—120, 150, 180, and even more. The palpitation of the heart and the corresponding dyspnœa, is a very serious and constant complaint on the part of the patient. The circulation is suffering all over the system. There is sometimes œdematous swelling of the hands and feet. There is dizziness and great irritability. The complexion of the patients, who are mostly very anæmic, is generally pale and sallow, and changes very frequently. The face suddenly flushes, is now and then covered with perspiration; so with other parts of the body. Ebstein reports a case of unilateral hyperidrosis; and similar observations have been made by other authors, such as Nitzelnadél and Chvostek. The temperature is generally not increased; but when the nervous excitement is very great a slight increase has sometimes been observed. Though the dilatation of the blood-vessels be very general, the spleen has, as a rule, not been found enlarged. Nor have there been found the so-called *táches cérébrales* of Trousseau, which are so commonly found in meningitis, sometimes also in typhoid fever, or toward the fatal termination of other serious diseases, and mean nothing else but vaso-motor paralysis. The swelling of the thyroid gland will sometimes be seen at an early stage of the disease, and its increase in a number of cases is very rapid. Sometimes it takes a long time, however, before it is fully developed. Its condition is not always the same. It may be painful or painless; soft or hard; compressible or not. It may be unilateral or bilateral; it may be changed within a very short time, or remain unchanged for a long time. In fact, the gland may never return to its original size. When unilateral, it appears the right lobe is more frequently swollen than the left. There are but few cases, however, in which but one lobe was affected through the entire course of the disease.

The last symptom in the series enumerated is always the exophthalmos. It may be very slight. Sometimes its only symptom will be a certain stare on the part of the patient. Sometimes, however, the eye protrudes to such an extent that it appears very large, indeed, a large portion of the sclerotica being visible outside the eyelids, which either close over the eye with great difficulty, or not at all. In consequence of this disproportion between eyelids and eye, the movement of the eyelids is retarded, and very slow indeed—a symptom which Graefe considered pathognomonic of the disease. In those cases in which the cornea is not sufficiently covered by the eyelids, and the movement of the latter is interfered with, the cornea is apt to suffer, and in not a few instances in which the disease has occurred in adults, destruction of the cornea has taken place in consequence. No such case, however, has been observed among children.

All the symptoms enumerated can be traced back to the disorders of the vaso-motor system, the sympathetic, and principally to its cervical portion. In fact, a number of anatomical changes have been found in the upper cervical ganglion in such cases. Still the number of post-mortem examinations has been but limited. The changes which have been found have either been proliferations of connective tissue, such as found by Lancereaux in the left ganglion inferius colli; or gray infiltration, such as reported by Reid in the middle and lower cervical ganglion; or enlargement and thickening of the cervical sympathetic, as found by Virchow. But when we come to sift the symptoms, it appears, from the knowledge we have of the physiological functions of the sympathetic, that there is apparent discrepancy. The large blood-vessels of the neck and the head are considerably enlarged—a symptom which we have been in the habit of attributing to vaso-motor paralysis. The symptoms belonging to the heart can be best explained by irritation of the sympathetic, and also those belonging to the unstriped muscles in the orbit and the eyelids. This discrepancy, however, is explained away, and, it appears to me, very satisfactorily, by the discoveries of Goltz and others, who find that the dilatation of blood-vessels *may* be due to vaso-motor paralysis, but *is* due, in many cases, to the irritation of sets of fibres of the sympathetic, which, when stimulated, will dilate blood-vessels. In this manner all the symptoms, those belonging to the eye, the thyroid gland, and the heart, would be best explained by taking them as the result of irritation of the sympathetic. The majority of cases which have been observed belong to adult women. In most of them this affection was not the only disease noticeable among them. Their history was one of previous disorganization of the nervous system. Many of them were anæmic from childhood, and suffered from disturbances of menstruation. A few whom I remember had suffered from St. Vitus' dance when children. Many had suffered long from trifacial neuralgia, from intercostal neuralgia, from hysterical symptoms of all kinds, and, finally, the symptoms of Graves' disease would develop themselves. There have also been complications with intellectual disorder. In a few cases there were mania, melancholia, and epilepsy. Chlorosis has existed in a great many cases. Some were able to trace their disease back to emotional excitement, to sudden fright, or to traumatic injury of the head. In a very few cases—thus in the case reported by Solbrig, a boy of eight years—the mother had suffered from a similar affection. Thus the impression would be, even if there were no proofs, that the disease is not only intimately connected with nervous disorders, but is a nervous disorder itself, an impression more than fortified, even verified by anatomical changes found in post-mortem examinations and the physiological explanation of all the symptoms. The case before us is peculiar, in that it has gotten nearly well, with the

exception of a moderate amount of swelling of the thyroid gland, which is pretty hard, and not compressible. There is hardly any symptom left which can be traced back to the original disease—that is, with the exception of the chronic enlargement of the thyroid gland, but she must be considered well of her exophthalmic goitre. She is so well that there are not even cardiac murmurs, neither organic nor functional, and certainly there is no exophthalmos visible at this time. In this condition it appears she has been for a year or two. No serious disorder has been noticed in her heart. To what extent her intellect or temper have suffered from her general disposition or from her sickness we are certainly not able to state, but there is a serious affection now present which, though it has not been observed very frequently, must still be brought into some connection with her original sickness. Two cases of Gagnon exhibited the very same complication which we notice here—that with *chorea minor*. In those cases also the exophthalmic goitre was the first affection, and was then followed by St. Vitus' dance. Our case exhibits none of the symptoms that we are apt to find in a large number of cases of chorea minor. There are no cardiac murmurs, there is no pain in the head or vertebral column, neither spontaneous nor upon pressure, which we meet with so very frequently. Thus it is to be taken as a simple neurosis, the cause of which is certainly unknown to us.

Without intending to go further into the principles of the pathology of the disease, I have to point to a few facts which it is well to emphasize once more. This child has got nearly well of her exophthalmic goitre. Heart and eye are normal. There is enlargement of the thyroid gland, which, as all the other symptoms have disappeared some time ago, will probably prove permanent unless relieved by proper treatment. It is now years since the disease commenced; and it may take years before the goitre will entirely disappear, if at all. If it does, the whole sickness will run a course perhaps of six or eight years—a not uncommon thing, when we remember such cases as, after lasting a half-dozen or a dozen years, would never get entirely well. On the other hand, it is worth while to remember that some of the cases reported have got well in a proportionately short time. Solbrig's case is, it is true, an exception; but it was so acute in its beginning and in its course, that ten days were sufficient for the disease to show its first decided symptoms, and disappear. The rule is, that the patients suffer long, and recover but partially. The percentage of complete recoveries is but small. Twenty-five per cent. have recovered completely. As far as children are concerned, it appears that most of them have not been so sick as many adults; and partial recoveries have, at all events, been accomplished in shorter time than amongst adults.

If the pathology of the disease is such as I have stated, the indications for treatment are simple enough. The results, as you have seen from the remarks made on the long duration of the sickness, and the small percentage of complete recoveries, are indeed not very encouraging. We have to deal with irritation of the sympathetic nerve, with dilatation of blood-vessels, with a general neurotic condition, with deficient power of resistance, with anæmia, etc. Thus there are indications with regard to the general condition of the patients, and in regard to the direct treatment of the disease. As far as local treatment of the sympathetic ganglia of the neck is concerned, galvanism has been resorted to as one of the principal, perhaps as the main, remedies. It has been expected that it would, when directly applied to the ganglion of the neck, result in diminishing the size of the blood-vessels and the circulation about the heart, the neck, and the head. A great many cures have been reported: but it has always appeared to me that the novelty of the remedy had a great deal to do with the large number of speedy and absolute recoveries boasted of.

In general, it must not be forgotten that the application of the galvanic current to the deep tissues, and more still to a small point, has its great difficulties. The permeability to the electrical current, on the part of the tissues, differs greatly; and thus it is not in our power to limit the course of the galvanic current in certain directions. At all events, a portion of the galvanic current is lost. Moreover, a number of tissues and organs are influenced in the neighborhood of the point we aim at, and thus the effect, if not counteracted, is modified. I have always doubted whether galvanization of the sympathetic, by applying one electrode to the nape of the neck, and one directly to the ganglion by pressing down along the sterno-cleido-mastoid muscle, was as certain as it has been represented to be.

I can imagine that, in lean persons, and with a small electrode, the object can be accomplished to a certain extent, but to a certain extent only. It is impossible that an effect should be accomplished without, at the same time, affecting the pneumogastric nerve, which is in the immediate neighborhood, and which, so far as effect upon the heart is concerned, is directly antagonistic to the effect upon the sympathetic ganglia controlling the heart. I can therefore imagine that the irritation of the sympathetic is directly counteracted by irritation of the pneumogastric, both of them being reached by the same galvanic current. That I do not stand alone in this opinion has been proved in an essay by G. Fischer in the *Deutsch. Archiv für klin. Med.*, Vol. XX., p. 175.

As, however, this point is not absolutely settled, it behooves us to defer our final judgment until the cases are more numerous. Certainly, if a large number of cases have been, or will have been, reported, we are justified in relying upon a remedy, although we do not know much about its *modus operandi*. If the irritation of the sympathetic nerve is the cause of the disease, it is very much more probable that the sedative effect of the galvanic current is the one to be relied upon, than that we should have to fall back upon its irritant effect. If that be so, very probably the frequent application for a short time—a few minutes only—will be more indicated than an application once or twice in the twenty-four hours. In connection with this theory and advice, the number of cases in which the bromides have given relief are explained by the sedative effect produced by the remedy. It is not at all necessary to fall back upon the potassium, with its effect upon the heart. Very probably its effect is due to the bromine in the combination. The theory according to which an irritation of the sympathetic is the cause of the disease explains best the success—at least, partial success—which digitalis has given in a number of cases, especially that of Solbrig, and in a few of my own. By acting as a stimulant on the pneumogastric nerve, it would relieve the symptoms brought about by irritation of the sympathetic. In a majority of cases I have seen, not only in children, but in adults, there has been a decided amelioration of symptoms under the use of digitalis. Digitalis will act pleasantly in the same degree as belladonna would act unfavorably. I add this remark at once, because belladonna, or its alkaloid atropia, have been so frequently administered in a number of neurotic affections.

Of nerve specifics, I know of but one that has acted favorably in a few of my cases, and that is *arsenic*. As a rule, it is well tolerated. Its effect upon the digestive organs has not been remarkably unfavorable. On the contrary, it appears that it improves nutrition in neurotic persons suffering from anæmia, and a low standard of assimilation. It is always worth while to try it, either as Fowler's solution, or better as arsenious acid, and better still in the shape of Pearson's solution of the arseniate of soda, for a successive period of weeks, sometimes of months.

Ergot has been resorted to in a number of my cases. Its effect upon the size of blood-vessels, no matter what its original effect may be upon the nerve matter, has always encouraged me in administering it in such cases, and I feel positive, without being able to explain the action in every instance, that I have seen good results follow its use. The same I can say of quinine. Not unfrequently, therefore, have I combined ergot and digitalis, or ergot and quinine, or ergot, quinine, and digitalis, and believe that the combination of two or of all three has yielded good results. So far as ergot is concerned, it is desirable to begin with small doses. Even mild preparations, such as the fluid extract, sometimes are not well tolerated, and it will be necessary to discontinue them and use ergotine, either Bonjean or Squibb's instead. Very frequently, almost uniformly, when the former was not well tolerated, the ergotine in the form of pills and in the combinations enumerated above, was well borne and was successful. The constitutional debility in such cases will, as a rule, bear iron very well indeed. But sometimes it is tolerated only when the vascularity and irritability has partly disappeared; while these are very high it is better not to give it at all; arsenic is certainly generally better than iron. When the frequency of pulse has been diminished to a certain extent, when the flushing has disappeared, and when the local and general perspiration has, at all events, been reduced, and the palpitations are less, the time for the administration of iron has arrived, and until that time other restoratives are indicated rather than iron. When the symptoms are greatly modified, and the swelling of the thyroid gland remains, the preparation of iron to be used is the iodide, and the syrup of the iodide of iron is a mild form of administering it. It is well tolerated by the digestive organs, and any tendency to decomposition or fermentation on the part of the contents of the stomach is, to a certain extent, counteracted by the iodine developed by the decomposition of the preparation. Not infrequently in adults, and also in children, will the syrup of the iodide of iron suffice both as a stomachic and as a restorative. When, as you see it here, there is permanent swelling of the thyroid gland, not so much due to dilatation of blood-vessels as to induration resulting from cellular tissue hyperplasia, the iodides are indicated. As our patient here is anæmic, I do not propose to give her the iodide of potassium, but the iodide of iron. I believe that local treatment with the tincture of iodine, or the application, twice a day, of iodoform in collodium (1 : 15), will certainly do good. I should also propose to allow a mild galvanic current to be applied to the tumor for its electrolytic effect, six or eight minutes, once or twice daily.

"Syphilis of the Brain and Spinal Cord," a series of lectures, which appeared in *The Medical Press and Circular*, have been published for the author, Dr. Stretch Dowse, by Baillière, Tindall & Cox, of London. Much matter and several colored plates have been added to this reprint.

Original Communications.

CAUSES OF DEATH IN SURGICAL OPERATIONS.

By A. L. RANNEY, M.D.,

ADJUNCT PROFESSOR OF ANATOMY, IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

Part II.

AIR IN THE VEINS.

Etiology.—This distressing accident has always occurred, as far as my research has extended, in operations about the head, neck, or axilla.

Experiments on animals—by Morgagni, Vansalva, Bichat, and Nysten—have shown death to arise in the dog from an injection of three cubic inches of air into the jugular vein, and in the horse from three ordinary human expirations.

Bichat, in his experiments, concluded that even *one bubble* might result in death; but his associate investigators—Bell, Magendie, Amussat, Cormack, Wattman, Nysten, and Erichsen—do not verify such a conclusion.

Death seems to depend not only upon the amount of air introduced, but the rapidity of the injection seems also greatly to influence it.

In surgery, however, we have only to deal with the *spontaneous* admission of air into venous cavities, dependent upon a thoracic vacuum existing both within the pleuritic and pericardial sacs, and occurring during the act of inspiration.

Pathology.—There has been much discussion and many theories as to the exact physiological condition produced by the entrance of air into veins and the mechanism of its action as a cause of death.

Bell's theory argued that death was the direct result of *air upon the medulla oblongata.*

Cormack ascribes death to *distention of the right heart* alone, without abnormal valvular or pulmonary conditions.

Erichsen denies both of these conclusions, and claims that death results from *obstruction in the pulmonary capillaries* from the frothy condition of the blood, which resists the vis-a-tergo of the heart.

This theory has had great support; is based upon extensive experiments and pathological research; and, where small quantities of air enter veins, probably is correct.

Moore, however, in his paper on this subject, advocates an explanation, in which the *valvular* element is brought out as the most important factor, and which certainly merits attention.

He states his explanation briefly as follows: 1. Air, on entering the right ventricle, fails to close the wet tricuspid valve during the ventricular systole, from its light density and compressibility. 2. During the following diastole of the heart the air enters, or rather floats, into the pulmonary artery. 3. During the second ventricular systole the wet *pulmonary* valves also fail to close, and adhere to the sides of the vessel. 4. The succeeding diastole now draws into the ventricle blood from both the auricle and the lungs. 5. The cardiac systole now returns the blood again to its original situation, as both the tricuspid and pulmonary valves are open, and thus the circulation becomes arrested.

These two latter explanations probably cover the mechanism of death; the former being the most plausi-

ble when the amount of air in the heart cavities is small, the latter when a large quantity of air suddenly is introduced.

History.—In 1818 Beauchesne reported the first case of this accident occurring during the removal of a tumor of the right shoulder, the internal jugular vein being wounded. The patient lived fifteen minutes.

Subsequently cases were reported by Dupuytren, Delpech, Castara, Roux, Ulrick, Mirault, Warren, Mott, Malgaigne, Bégin, Erichsen, Cooper, Clemot, and others. Some of those recovered; some met almost instant death; some died of pneumonia from bronchial irritation at a later date.

In all of these cases, however, an abnormal condition of the opened vein existed, characterized by a failure to collapse, termed by the French *canalization*.

This abnormal condition may be produced either *artificially* or by some *anatomical* changes.

A. *Artificial canalization* may result from one of four conditions, viz.: 1. Tension of the aponeuroses, holding the mouth of a vein open. 2. Veins opened by platysma contraction. 3. Traction on the pedicle of a tumor. 4. Vein at an angle of the wound opened by traction on the flaps.

B. *The abnormal anatomical conditions* producing canalization are: 1. Indurated cellular investments about the vein. 2. Induration, or inflammatory thickening of the venous coats.

Thus in Beauchesne's case traction existed; in Delpech's, hypertrophy of axillary vein; in Castara's, section occurred during traction; in Roux's, section occurred during traction; in Ulrick's, the vein was enclosed in a tumor; in Mirault's, the vein was enclosed in a tumor; in Warren's, tension from position of arm existed; in Mott's, the *facial vein* was tense from position of the head; in Malgaigne's, the vein was enclosed in the tumor; in Bégin's, the jugular vein was tense from traction.

Symptoms.—When air is allowed to enter into the veins of a dog by section, there occurs: 1. A hissing noise, with gurgling at the mouth of the vein. 2. Struggles during the subsequent inspirations. 3. A churning noise at the apex of the heart during the ventricular systole, with a bubbling, thrilling, and rasping sensation on palpation. 4. The circulation becomes feeble, but the heart's action *remains forcible*. 5. The animal becomes unable to stand, rolls over, utters a few plaintive cries, is convulsed, extrudes its fæces and urine, and dies.

In man, however, there are additional symptoms given us by the *expressions* of the patient; thus the patient experiences terrible constriction in the thorax immediately after the air enters; screams, moans, and subsequently whines as the symptoms increase. The pulse early becomes imperceptible, the heart's action labored; convulsions come on rapidly, and death usually occurs. Still, in Mirault's case three or four hours elapsed before death; in Clemot's, several hours; in Beauchesne's, fifteen minutes; in Roux's and Malgaigne's, death from pneumonia ensued; while in Erichsen's and Cooper's cases, recovery took place.

Treatment.—As *prevention* of this accident is of vital importance, the following suggestions may be of value: 1. Always close the mouth of any *open* vessel *instantly*, both on the proximal and distal end, and compress every vein before cutting it. 2. Avoid raising *any tumor* on the *shoulder* in operations about the neck, head, or axilla, without protecting the large veins by pressure. 3. Compress, between the wound and thorax, if fear exists, during alterations in the position of patient or tumor. 4. Bandage the chest and abdomen tightly to prevent *gasping respirations*, which tend greatly towards this accident.

As to the plan of *actual treatment*, after the accident has occurred, many suggestions have been offered, though their value will depend somewhat on the views held as to the mechanism of death. Thus Moore advises a *supine* position, to allow the blood to fall to the *back* part of the heart, and thus raise the tricuspid valves. Others advise the head low and the feet high, to relieve the anæmia of the medulla. Mercier suggests *compression of the femorals*, axillaries, and abdominal aorta, for the same object; but this is objected to by others on account of the necessity of venous return, which is retarded by this method. Warren advises either *bleeding* from the temporal artery, *tracheotomy*, or *stimulants*, as the indications seem to demand, with galvanic shocks across the chest in case the heart's action seems to fail. Gerdy *compresses the chest*, hoping to expel or facilitate the passage of air through the lungs. In apparently fatal cases, Amussat and Blandin recommend *suction of air* from the heart, by means of a catheter passed into the open vein, or into right jugular if the former be impossible, with compression of chest at the same time. Magendie and Roux advocate suction alone. Reid and Cormack suggest the *opening of the right jugular vein* to relieve the right auricle.

Many of these plans have to me serious objections. Compression of the chest after the accident has occurred, seems useless, and increases the pulmonary obstruction. Bleeding from the temporal artery depletes the already empty arteries. Tracheotomy only relieves a secondary symptom (dyspnœa). Erichsen lays great stress on artificial inflation of the lungs to overcome the obstruction in the pulmonary capillaries, and suggests that mechanical respiration be kept up after this procedure, using at the same time ammonia to the nostrils.

Artificial respirations, with the *mouth* and *nostrils closed*, have been suggested as a remedial measure, the object being to expel air from the heart by the vein through which it entered. Finally, *injections of warm water* into the heart cavity, to render the valves movable, and subsequent artificial respiration to keep up the cardiac action, is resorted to, and recommended by Moore as a remedy in the severe type of cases. His steps for this operation are as follows: 1. Raise head during the injection, to allow air to escape through the fluid. 2. Open some vein in the neck, and evacuate its blood, to further assist the escape of air. 3. Avoid throwing in additional air with the syringe. 4. Inject with force enough to FILL, but not *distend* the heart cavities. 5. To inject two ounces at a time, with velocity enough to raise the wet valves which are adherent to the walls of the heart. 6. To stimulate the heart's action, during the operation, by galvanism and artificial respiration.

Without pausing to elaborate these means of treatment, I pass now to the *third* source of death dependent on vessels, viz.: embolism and apoplexy.

EMBOLISM AND APOPLEXY.

By embolism we mean a plug in a vessel interfering with the circulation of the blood, and formed at a point more or less distant from the seat of obstruction; by apoplexy, the escape of blood from a vessel into the cerebral tissue. I have coupled the two, since *cerebral* embolism is the most common form in fatal cases, and because there are some marked points of similarity in the symptoms of *this form* and that of apoplectic extravasation. Both, if occurring during

a surgical operation, have been preceded by abnormal anatomical conditions, and owe their occurrence to the excitement of the operation, rather than to any act of the surgeon. Still, as these pathological conditions which previously exist may be determined, or suspected, before the date of the operation, the occurrence of either of these causes of death is not an absolutely unavoidable accident, and, in many cases, not undeserving of censure.

Etiology.—Embolism is usually caused by a former endocarditis, producing vegetations upon the valves, though it may result from a phlebitis, or from spontaneous coagulation of blood in small capillaries, from pressure of tumors, a pyæmic condition, and other causes; these plugs subsequently becoming movable. The former condition, viz., vegetations on the valves, is, however, the one most likely to produce abnormal *cerebral* conditions, as emboli from the venous system are seldom arrested till they pass through the right heart, and are mostly entrapped in the pulmonary organs.

Apoplexy, on the contrary, is not necessarily associated with heart lesions, but rather is produced by an atheromatous condition of the vessels, which exists as a result of a previous endarteritis from irritation of alcoholic blood and high living.

Symptoms.—The *common* symptoms of both of these conditions, when present, leading to error in diagnosis or treatment are chiefly: 1. Possible coma. 2. Paralysis. 3. Sudden death.

The *distinctive* symptoms between the two diseases, provided the attack is not immediately fatal, are best grouped as a differential diagnosis.

Apoplexy.	*Embolism.*
The attack, if serious, but not immediately fatal, is accompanied by *coma* and *insensibility.*	Under the same conditions *consciousness* is liable to be present during the attack.
The indications of *cerebral compression* are present, as shown by the following symptoms:	The indications of *cerebral anæmia* exist, as shown by the following symptoms:
The breathing is *stertorous.*	The respirations are normal (as a rule).
The face is *flushed.*	The face is *pale.*
The pulse is *full* and *slow.*	The pulse is *rapid* and *feeble.*
The pupils are irregular. *Neuphasea* exists (as a rule).	The pupils are uniform. *Aphasia* is diagnostic.
The paralysis is *slow* in improvement.	The paralysis usually improves slightly within *twenty-four hours.*
The arteries are often felt to be atheromatous.	The arteries are normal.
No cardiac lesion exists if the attack be uncomplicated.	The aortic and mitral valves are usually found to be abnormal.
A history of previous *high living* is usually present.	A history of previous *rheumatism* and *endocardial inflammation* is generally detected.

Both may have been preceded by similar attacks; but in each a recurrence is liable to take place, even should no previous history of a former attack exist.

Treatment.—In severe cases of either of these conditions little can be done to relieve, save a symptomatic line of treatment. Cold to the head, venesection, and catharsis are usually employed in apoplexy, but more for the object of preventing further escape of blood than as curative measures. In embolism some improvement usually appears within twenty-four hours, without treatment, from a supply of blood, through the collateral circulation; but the prognosis depends greatly on the situation of the embolus, its size, and its character. Fatty degeneration often removes the foreign body before degeneration of the brain occurs; and, in these cases, complete recovery may result.

We come now to the SECOND CLASS of causes of death, viz., "causes affecting the nervous system."

SHOCK AND COLLAPSE.

By the term "shock" is meant a state of body dependent upon a sudden or violent impression affecting some portion of the nervous system, and, *through a nerve-centre*, acting upon the heart. By "collapse," a state of *extreme shock* verging upon dissolution, but not resulting in immediate death. Life may be destroyed without pathological lesions, as in cases of sudden or violent blows upon the epigastrium, and as a result of powerful mental emotion; but these cases are uncommon, and are, as a rule, always preceded by one of the above-named conditions. It is to these two conditions (viz., shock and collapse), therefore, that I direct your attention as a cause of death during surgical operations.

Syncope is not to be confounded with collapse or shock, since it differs from them in three respects: 1. In its duration and degree. 2. In the mental condition of the patient and the acute sensibility of the special senses. 3. In its more rapid *crisis*, but less profound effects.

Collapse is divided, according to its symptoms, into three stages: 1. Stage of shock. 2. Stage of reaction. 3. Stage of excessive reaction.

This third stage has been described by Hunter as the "stage of irritability;" by some as the "stage of delirium;" by others as the "stage of inflammation;" and by Travers as the "stage of prostration with excitement."

Etiology.—The causes of collapse may be classified into

1st. *Injuries* involving a large amount of tissue or nerve trunks: Lacerations, burns, injuries to joints, injuries to organs, especially liver, testicle.

2d. *Poisons*, depressing the nervous condition: Tobacco, aconite, drastic cathartics, etc.

3d. *Shock to nerve-centres* resulting from blow on epigastrium, lightning, concussion of brain, mental emotions, excessive pain, sudden cessation of pain, cold douche.

4th. *Sudden* and *severe hemorrhage.*

5th. *Exhaustion*, as produced by excessive fatigue, excessive privation from food, prolonged suppuration, prolonged mental excitement.

There are also certain conditions which are predisposing towards collapse, such as "old age," "debility," prolonged anxiety, excessive fear, etc.

Pathology.—In fatal cases of collapse the pathological conditions are confined to the heart and circulatory apparatus; thus the heart cavities are usually found to be markedly distended; the right heart is engorged with blood; marked engorgements of the great veins and cavas exist; and imperfect coagulation of blood is present in the heart and large vessels.

Symptoms.—The symptoms of collapse differ with the various stages, and will be therefore separately enumerated.

The symptoms of the first stage (stage of *shock*) are: 1. Pallor of the whole surface of the body. 2. Bloodless lips. 3. A clammy moisture of the skin with drops of sweat on the forehead. 4. A countenance dull, shrunken, and contracted. 5. An eye deficient in lustre, and partially covered with the drooping lid. 6. Dilated nostrils. 7. A temperature depressed below normal. 8. Extreme muscular debility. 9. A pulse frequent and irregular, or feeble and often impercepti-

ble. 10. Respirations short and feeble, or sometimes panting or gasping. 11. And finally, incomplete coma associated with nausea, hiccough, vertigo, dimness of vision, and painfully acute hearing.

The symptoms of the second stage (stage of *reaction*) are: 1. Slow and gradual improvement in appearance of the face. 2. Improvement in the rhythm and the force of pulse. 3. Fuller respirations. 4. Sighing. 5. Return of power of deglutition. 6. Increase of temperature. 7. Change in the position of the patient from a supine posture (sign of debility) to the side. 8. Slight febrile action, followed by sleep, and often by convalescence.

This stage of reaction may not be uniformly progressive, but may be characterized by relapses and successive reactions. The prognosis depends on the rapidity of the stage of reaction.

The symptoms of the third stage, if present, are: 1. Dry heat of skin. 2. A rapid and bounding pulse, but always compressible. 3. Hurried but imperfect respiration. 4. Tremulous tongue. 5. Great thirst. 6. Restlessness and jactation. 7. Delirium (most marked at night). 8. Muscular twitchings.

As exhaustion comes on, the skin again becomes cold and clammy; the face pale and haggard; the pulse very rapid and fluttering; subsultus, coma, or convulsions usually precede death; death.

Treatment.—The treatment of collapse should be modified in two sets of cases. 1. Those associated with hemorrhage. 2. Those without hemorrhage.

In the first class of cases Travers makes the following suggestions as a summary of treatment. 1. Maintain a horizontal position. 2. Give brandy in *moderation* per stomach and rectum. 3. Apply hot flannels to the epigastrium and the extremities. 4. Early nourishment must be given following the use of stimulants. 5. The head should be kept cool to avoid mental excitement. 6. Early sleep, through opiates, should be obtained. Give hyoscyamus if opium fails to produce sleep. 7. If reaction be delayed beyond twelve hours, increase the stimulants, apply mustard to the epigastrium, and induce sleep through large doses of opiates.

C. T. Hunter, of Philadelphia, recommends placing patient in a bath at 98° and raising it rapidly to 110°. The respirations have thus been known to fall from 36 to 20.

Young recommends, in cases demanding serious operations, confinement of the patient, for one week previous to the operation, to the *same position* as required for the first week following the operation, in order to prevent the confinement becoming an exciting cause of shock.

In those cases not associated with hemorrhage the following treatment is suggested: 1. Opening of the external jugular vein, if distended, is advised, to relieve the distention of the right heart, since in experiments on animals this treatment has been proved efficacious. 2. Maintain the normal temperature of body if possible to do so. 3. Diffusible stimulants should be given with great care to avoid excessive reaction. 4. Artificial respiration should be used when demanded.

We now reach the third class of causes of death, viz.: "Causes affecting the blood."

ANÆSTHETICS.

The list of anæsthetics to-day in general surgical use comprises chloroform, sulphuric ether, nitrous oxide gas, bichloride of methylene, tetra chloride of carbon.

Preparations of amyl, although anæsthetics, are not used as general surgical aids, and the various preparations employed for local anæsthesia do not enter into the cause of death, and are therefore omitted.

Effects of Inhalation.—All anæsthetics by inhalation follow, to a greater or less degree, a resemblance to the symptoms of chloroform and sulphuric ether.

In the first stage (that of *faucial* and *laryngeal irritation*) there is developed: 1. An increased flow of mucus. 2. A desire for air and sense of suffocation. 3. Frequent reflex acts of swallowing. 4. Coughing. 5. Struggles of the patient.

In the second stage (that of *general dilaration*) we notice an increased pulse, increased respirations, flushing of the face, laughing, shouting, crying, and other symptoms of intoxication. The taste and smell are lost, and analgesia is present.

This stage is most prominent in the mercurial and hysterical temperaments.

In the third stage (the *tetanic* or *convulsive* stage), the muscles become rigid, the face cyanosed, the breathing arrested or stertorous, opisthotonos exists, and the eyes are staring and open.

This stage is least marked in women, and the feeble or debilitated.

In the fourth stage (the stage of *coma*) the surface becomes cool, diaphoresis is present, the countenance is placid, the pupils are normal or slightly contracted, the respirations become shallow but easy, and the pulse somewhat slower than normal.

CAUSES OF DEATH.

The causes of death in anæsthetics are: 1. Syncopal apnœa. 2. Epileptiform syncope. 3. Paralysis of respiratory muscles. 4. Cardiac paralysis. 5. Shock. 6. Coagulation of blood in the pulmonary capillaries. 7. Direct anæsthesia of lung tissue.

(A) SYNCOPAL APNŒA (so called by Richardson).—This cause of death occurs during the first stage of chloroform, *soon after administration of the anæsthetic is commenced*. It is explained by Richardson as due to "irritation of the peripheral nervous system associated with excess of carbonic acid in blood and arrest of heart's action," and by Bartholow, as due "to *direct* paralysis of the cardiac ganglia from contact with chloroform in the blood. These ganglia being in an abnormal state of susceptibility from causes not now understood."

(B) EPILEPTIFORM SYNCOPE.—This occurs during the *third* or *tetanic stage*. It is produced by tetanic fixation of the respiratory muscles, and interference with the pulmonary circulation, resulting in venous engorgement of right heart. Respiration in this form of death ceases before the heart's action is arrested.

(C) PARALYSIS OF THE RESPIRATORY MUSCLES.—This occurs during the stage of *complete muscular relaxation*. The heart beats for some seconds after respiration has ceased.

(D) "CARDIAC PARALYSIS."—This occurs during the stage of *complete insensibility* and analgesia. It is produced by paralysis of the cardiac motor ganglia. Respiration may continue for a short time after heart has ceased to act. J. Paget's case, 1857. Respiration seven minutes after heart failure.

(E) SHOCK.—This cause of death, when present, is induced by and combined with the respiratory or cardiac depression existing as the result of the anæsthetic. This may occur either in the early or late stages.

Faure's * theory attributes death from chloroform in all cases to coagulated or *thick* blood in pulmonary

* [illegible] always [illegible]

capillaries, from the direct action of too strong chloroform vapor.

Madden's * theory attributes death from chloroform to direct *anæsthesia of the lung tissue*, and therefore arrest of respiration and asphyxia.

The conditions rendering anæsthetics dangerous are: 1. Fatty degeneration of heart (a prominent contraindication). 2. Previous alcoholic history. 3. Brain tumors and degenerations. 4. Respiratory obstruction from swollen epiglottis, enlarged tonsils, œdema glottidis, laryngeal paralysis, thoracic tumors or aneurism. 5. Emphysema and obstructed pulse circulation, from engorgement of right heart, and deficient heart-power. 6. Valvular lesions, provided compensatory hypertrophy is not *proportionately* developed. 7. Incomplete anæsthesia during *painful* surgical procedures, causing death from shock, as the result of peripheral irritation.

Muscular debility and weakness from exhaustion, if otherwise uncomplicated, prove rather aids to anæsthesia than contraindications.

Preventive Measures against Danger.—These may be comprised in the following rules: 1. A thorough examination—for sources of danger should always be made previous to administration of an anæsthetic. 2. Never administer on a full stomach, as anæsthesia of the glottis prevents expulsion of vomited matter from the larynx, in case it enters by regurgitation. 3. Never administer after long *fasting*, as absence of nutrition may tend toward cardiac paralysis. 4. Give one or two ounces of whiskey before administration. 5. Nussbaum (Berlin, 1863) suggests that a hypodermic dose of morphia be given before the administration of the anæsthetic; the results which he claims being (1) that it prolongs the anæsthesia, and (2) that less anæsthetic is required.† 6. Avoid all excitement to the patient from fear, sight of instruments, too many spectators, etc., all of which tend to induce shock. 7. Have appliances for resuscitation at hand, and plenty of fresh air during the administration of the anæsthetic. 8. In chloroform, mix only three and a half per cent. of the vapor with air to ensure safety (Simpson's rule being 3 ss. on a handkerchief). The specific gravity of chloroform being four times heavier than that of air, a saturated handkerchief, if held close to the mouth, will displace the air and give a dangerously large percentage of chloroform vapor. 9. In ether, the respirations alone need be watched during its administration. In chloroform, however, the respirations and the pulse need both to be carefully noted.

Treatment of Dangerous Symptoms.—1. Nélaton's plan suggests immediate inversion of the patient in case of heart failure. 2. Inhalation of gtt. v.–x. of nitrite of amyl may be given early, the tongue being drawn out to lift the epiglottis. 3. Stimulation, in case respiration is affected, but not entirely suspended, should be employed by means of either ammonia to the nostril, cold douche, or injection of ammonia into the veins. 4. Galvanism, if employed, may be administered by the following methods: (*a*) Herapath's method (*Lancet*, 1852). The positive pole is placed to the nostril and the negative pole over the diaphragm. A reflex action is thus excited between the fifth pair and the pneumogastric. This is used chiefly in case of respiratory failure. (*b*) Duchenne's method. The poles are placed directly over both phrenic nerves, on a line with the fourth cervical vertebra. This also serves to stimulate respirations. (*c*) Packard's method (*Amer. Jour. Med. Science*, 1865). One pole is placed over the upper dorsal spinous process, and the other pole over the apex of the heart. By this method cardiac contraction is induced. 5. Tracheotomy and inflation of the lungs by a catheter passed down the trachea, as suggested by Langenbeck (Berlin, 1859), may be resorted to in desperate cases. 6. Finally, acupuncture of the heart has been suggested, but as yet is not well verified as a safe procedure, nor can it conscientiously be recommended.

* Tenn. Med. Society, April, 1858.

† Med. Times and Gazette, 1864: Report of Versailles Med. Society.

CASE OF CARCINOMA OF THE LIVER, WITH REMARKS UPON THE DIAGNOSIS AND TREATMENT OF THE DISEASE.

By LOUIS STARR, M.D.,

Physician to the Episcopal Hospital, etc., Phila.

Thomas ——*, æt. forty-nine years, a laborer, was admitted to the medical ward of the Episcopal Hospital on October 26th, 1878. His family history, so far as he knew, was healthy. He had never had syphilis, and had always been moderately temperate in his habits. With the exception of an attack of pneumonia, in early life, he had been little troubled with illness until 1872, when he began to suffer from occasional paroxysms of dyspnœa and from dyspepsia and constipation. He had never felt any anxiety about his health, however, until June, 1878. At this date he noticed that the ingestion of food gave rise to pain in the epigastrium, and was followed, after an interval of about five minutes, by vomiting, the material ejected consisting of the recently swallowed food, mixed with mucus and sometimes containing blood. There was also anorexia, constipation, failure in flesh and strength, and commencing jaundice. After the lapse of a month the vomiting became much less frequent and troublesome; the other symptoms, on the contrary, gradually increased in severity up to the middle of September; subsequently there was more vomiting, and his general condition grew rapidly worse. Ten days before coming to the hospital he observed, for the first time, that there was an abdominal tumor. When admitted, he was much emaciated and very weak; his face wore an anxious expression; his skin felt harsh and dry; and there was marked, though not intense, jaundice of both the skin and conjunctivæ, and slight yellowness of the mucous membrane of the mouth as well as of the hair, which was naturally brown in color. His feet and ankles were somewhat œdematous. His tongue was dry, smooth, and lightly coated in the centre; he had considerable thirst, very little desire for food, and when he took anything into his stomach it was almost immediately rejected again. He complained, too, of hiccough, of distributed soreness of the abdomen, and of constant sharp pain in the centre of the epigastric region, at times extending through toward the back. His bowels operated two or three times in every twenty-four hours, the motions being partly formed slate-colored, with a tinge of green, and containing a small quantity of blood.

On making an examination of the abdomen, the liver was found to be greatly enlarged, occupying the epigastrium, the right hypochondrium, and the greater part of the umbilical and right lumbar regions.

* This history was compiled from the ward notes of the resident physician, Dr. J. M. Anders.

These regions, together with the zyphoid cartilage and the right costal border, were thrust outward and to the right, and the umbilicus was displaced about one inch to the right of the median line. The edges of both lobes of the liver could be distinctly traced by the fingers, and were thick, firm, and nodulated, while over the anterior surface several large, and many small, hard nodules could be perceived through the abdominal parietes. The movement of these nodules, as they rose and fell synchronously with the respiratory acts, produced a peculiar wavy appearance at the epigastrium. There was dulness on percussion and tenderness on palpation over the accessible portion of the organ, the tenderness being slight, except over the left lobe, where even light pressure caused considerable pain, and gave rise to eructations of odorless gas and to prolonged hiccough. The upper border of the liver, as determined by percussion, was in the normal position. The pulsations of the abdominal aorta could be distinctly felt, and in contact with the left side of the vessel, just below the margin of the left lobe of the liver, a firm, convex mass, as large as a hen's egg, was discovered. The intestines occupied the left side and the lower part of the abdomen; here there was resonance on percussion and gurgling on palpation; no ascites could be detected. The inguinal lymphatic glands were somewhat enlarged and the abdominal veins moderately distended. There was no cough or difficulty in breathing, and a careful exploration of the thorax revealed nothing but feebleness of the cardiac sounds and a few old pleuritic friction sounds over the lower part of the left chest posteriorly. The urine was voided freely and in proper quantity; was orange brown in color, neutral in reaction; had a specific gravity of 1021; contained a quantity of bile coloring-matter, about the normal amount of indican, and was entirely free from albumen. Nothing abnormal was detected on microscopic examination.

The patient was put to bed and ordered a fluid-ounce of milk, with half a fluid-ounce of lime-water, every hour throughout the day and when awake at night, together with three fluid-ounces of sherry wine and gr. xvj. of sulphate of cinchonidia, in divided doses, during the day.

For the first four days after admission (Oct. 26th–30th) there was a noticeable improvement in his condition. He was more cheerful; was able to sleep better; suffered less from pain, and retained all his allowance of milk and lime-water, except a few doses on the 27th and 28th, which were vomited soon after being taken, the milk being partially curdled and mixed with a small quantity of greenish liquid. Still he had prolonged attacks of hiccough and frequent eructations of gas, and his bowels were too loose, some of the motions being attended with straining, and consisting of little more than blood-stained mucus.

On the 30th a movable, rather firm tumor, three inches in length and two inches in width, was detected above the left iliac region. As there had been no more vomiting, the milk was increased to one and a half fluid-ounces every hour; and, as the cinchonidia appeared to cause slight nausea, it was discontinued, and a powder, consisting of gr. v. of bicarbonate of sodium and gr. x. of saccharated pepsin, given in milk four times daily.

Up to October 31st the morning temperature, taken in the axilla, had ranged about 96.5° F., and the evening, 99°; while the pulse, which was always feeble, varied from 84 to 100 beats per minute in the morning and from 96 to 120 in the evening.

On Nov. 1st the morning temperature was 94.5°; the patient's skin felt cold; his face was haggard; there was great weakness, increased abdominal pain, and a feeble, irregular pulse scarcely perceptible in the left arm, which was considerably swollen, and pitted on pressure. The bowels were more frequently moved, and the passages more clay-colored. There was no vomiting, but obstinate hiccough and great thirst. The milk was increased to forty-eight fluid-ounces and the wine to six fluid-ounces per diem, and gr. x. of carbonate of ammonium were administered every three hours. During the night of the 1st he had several large, lumpy stools, and on examining the abdomen next day no trace of the small, movable tumor could be found.

On Nov. 2d, 3d, and 4th his condition was unchanged; the temperature at each observation (8 A.M. and 6 P.M. daily) was 95.5°, and the pulse was very weak, counting from 96 to 108. On the succeeding three days, although there was no alteration in the annoying symptoms—the pain, hiccough, and diarrhœa—there was some gain in strength, a rise in the temperature to the normal line, and a stronger, though more frequent pulse; the swelling of the left arm subsided, and a feeble pulse could be felt in the radial artery at the wrist.

On the night of the 7th he became very much prostrated, and death occurred at 9 A.M. on the 8th, being preceded by a short period of semi-coma. The temperature an hour before death was 95.5° and the pulse 128.

At the *post-mortem* examination, made twenty-six hours after death, the liver was found to be greatly enlarged, and was thickly studded with hard white nodules. These nodules were slightly elevated, round or oval in shape, and varied greatly in size, some measuring scarcely an eighth of an inch, others more than an inch in diameter; a few of the larger were umbilicated. The hepatic tissue was dark-green in color. The gall-bladder, the hepatic duct with its two branches, and the ductus communis choledochus, up to a short distance from its point of entrance into the duodenum, were greatly distended. In the latter position the common duct was partly occluded by pressure from the head of the pancreas. The head of the pancreas was tightly adherent to the duodenum, and rested upon and extended downward to the left of the abdominal aorta; together with the rest of the gland, it was enlarged, nodulated, and much more compact in structure than usual. The cœliac glands were greatly enlarged and hardened. There was a *chronic* ulcer upon the lesser curvature of the stomach, and also in the duodenum over the seat of the attachment of the pancreas. The rest of the abdominal viscera were healthy. There was a small quantity of fluid in the peritoneal cavity. There was no marked thoracic lesion, other than extensive pleuritic adhesions on the left side. The tissues throughout the body were somewhat stained with bile. On a microscopic examination, by Dr. Simes, the nodules in the liver, the cœliac glands, and the head of the pancreas presented an arrangement of histological elements characteristic of cylindrical epithelioma. The same appearances were also observed in a thin section taken from the margin of the duodenal ulcer. The conclusion, therefore, was that the lesions of the liver, pancreas, and lymphatic glands were secondary to that of the mucous membrane of the duodenum.

Remarks.—The diagnosis of carcinoma of the liver must depend chiefly upon the signs obtained by physical exploration of the abdomen, since the general

symptoms, though they may furnish a clew to the lesion, are far from being characteristic of it.

The general symptoms commonly ascribed to the disease, are, in the beginning, anorexia, flatulence, constipation, distention, and pain at the epigastrium, or right hypochondrium and in the right shoulder, and, later, jaundice and ascites, together with the development of the "cancerous cachexia." Occasionally also there is œdema of the feet and pyrexia.

Of these symptoms, the situation of the pain and the jaundice would direct attention to the liver, but would not indicate the nature of its disease, for the first symptom is common to many hepatic affections; and the second, while it is more frequently present in cancer than in any other organic disease of the viscus, is so often absent that it is of little value as a diagnostic symptom. In fact, jaundice is absent in the majority of instances; thus of 91 cases mentioned by Frerichs, death occurred in 52 without this symptom having been noticed. The icterus, when present, is, in the main, caused by pressure upon the bile-ducts. It consequently varies in intensity according to the degree of obstruction, and, when once developed, never disappears—differing, in this respect, from jaundice, consequent upon catarrh of the ducts or upon obstruction by gall-stones. In this form of icterus, too, the urine, in addition to bile coloring-matter, sometimes contains an excess of uroxanthin or indicani; but this excess cannot be considered as pathognomonic of carcinoma of the liver, as it has been observed in other, very diverse, affections.

Of the other symptoms, complaints of flatulence, distention at the epigastrium, and constipation point to the stomach and intestines. The existence of ascites would simply lead to an examination of the liver, without affording any definite information; and the presence of the "cancerous cachexia" proves nothing except grave interference with the function of nutrition. Again, as hepatic cancer is in the majority of cases a secondary affection, and as it at times gives rise to other lesions—for example, chronic peritonitis or pleuritis—the difficulty of making the diagnosis from rational symptoms is further increased, the attention being diverted to the symptoms of the primary disease on the one hand, or the consecutive disease on the other. The rational symptoms then being, at most, merely suggestive, the main reliance must be placed upon physical exploration of the abdomen.

Such an examination usually shows enlargement of the liver, extending principally in a downward direction, and being frequently of great extent. In the latter case the lower ribs on the right side are pushed upward and outward, and there is a visible tumor in the abdomen having the outline of the liver. There is dulness, increased resistance and tenderness on percussion over the enlarged organ, and on palpation the surface is uneven, and the edges, which can be readily traced, are indurated, thickened, and irregular. This irregularity of the surface and edges, the most pathognomonic of the physical signs, is due to the presence of the cancerous nodules, which vary considerably in size and number, but are always slightly elevated and flattened on the surface, not uncommonly umbilicated, and generally firm and resistant. They are, at times, visible through the abdominal wall, and may give rise to friction-sounds and fremitus, especially on forced breathing. An important negative sign is the rarity of an increase in the area of splenic dulness.

With these physical signs the diagnosis of cancer of the liver is quite easy. In some very exceptional instances, however, when the cancer is infiltrated, or when a few small cancerous nodules are formed deep in the tissue of the liver, there is only slight enlargement and none of the characteristic irregularities of contour; here no positive diagnosis can be made until after an autopsy. In these cases, too, the difficulty is apt to be augmented by one or more of the rational symptoms being ill-developed or altogether absent.

The disease which is most liable to be confounded with hepatic cancer is syphilitic hepatitis when, in consequence of the formation of cicatrices, the organ has become uneven and lobulated. The clinical history, the presence of other syphilitic lesions, the slight degree of enlargement, and the absence of induration, serve to distinguish the syphilitic from the cancerous affection.

In the case just detailed, the physical signs were so well developed that the diagnosis was easy, even without the confirmation obtained from the patient's age, the absence of syphilitic history, and the existence of the general cachexia and jaundice. At the same time the detection of the small tumor overlaying the aorta and the undue prominence of the gastric and intestinal symptoms indicated that the condition was a complicated one. The nature of the complications was never definitely determined during life; but in the light of the post-mortem examination there is a ready explanation, the tumor being referable to the enlarged pancreas, and the digestive symptoms to the gastric and duodenal ulcers. The rather marked jaundice was supposed to depend upon incomplete obstruction of the bile-duct by a cancerous nodule developed in the fissure of the liver, and this supposition was the natural one, as there was nothing to point to the actual, though far less likely condition, partial occlusion of the common duct by pressure from the head of the pancreas. The fact of the obstruction being incomplete was proved by the presence of bile coloring matter in the evacuation from the bowels.

Among other symptoms, the persistent hiccough and the low temperature are worthy of note. Singultus occurs not infrequently in malignant diseases, especially in those in which there is a tendency to death from asthenia. In such diseases, also, the temperature is frequently low, sometimes falling even below the normal line. Low temperature is almost the rule in carcinoma of the liver, though there is sometimes pyrexia; in these rare cases the elevation of temperature is only moderately high, is commonly of short duration, and is probably due to some inflammatory complication.

In treating cancer of the liver, all that can be done is to meet the troublesome and dangerous symptoms as they arise, and maintain the patient's strength by the use of tonics, stimulants, and proper food. The employment of a light but nutritious diet, into which milk should enter largely as an ingredient, will do much to moderate the digestive derangements and keep up the tone of the system. When there is gastric irritability and an antacid is indicated, lime-water may be added to the milk, and when the bowels are constipated mild laxatives should be administered. Of tonics the best is cinchona, or one of its preparations. If there is much pain, fomentations, cataplasms, and narcotic liniments should be resorted to; and if there is excessive ascites, the trocar is to be preferred to the use of drastic purgatives or hydragogue diuretics.

The great principle of the treatment is to avoid every measure of a debilitating nature, the practical value of an early and accurate diagnosis being to justify the plan of non-meddlesome medication.

Progress of Medical Science.

CONGENITAL ABSENCE OF THE SPLEEN.—Drs. Koch and Wachsmuth, of Altona, report the following case: A large, strongly built, muscular man, forty-nine years of age, and a tinker by trade, was admitted into the hospital in Altona on December 4th, and died on the 6th. When admitted, he was suffering from high fever and diarrhœa, and presented an indistinct roseolar eruption, but the position of the spleen could not be made out either by palpation or percussion. Physical examination of the chest revealed bronchopneumonia of the right side. At the autopsy the spleen was found to be entirely wanting, and there was no blood vessel corresponding to the arteria lienalis. All the other viscera were found in their normal positions. —*Berliner klin. Wochen.*, Feb. 10th, 1879.

A CASE IN WHICH THE OPERATION OF LAPAROTOMY WAS PERFORMED THREE TIMES IN THREE YEARS.—Dr. Baumgärtner, of Baden-Baden, reports the following case, which is unique, both because of the number of the operations performed within a brief period of time, and because of the peculiar nature of the indications which led to the last two laparotomies: The patient, a woman, thirty-three years of age, had suffered for four years from a tumor of the left ovary, which had attained a very large size. The tumor was removed on Sept. 28th, 1875. The pedicle was secured in the lower angle of the abdominal wound by a Wells's clamp; and, for the purposes of drainage, Douglas's cul-de-sac was punctured with a trocar, and a drainage-tube carried from the vagina through the opening and out through the abdominal wound. On the fifteenth day the clamp was removed, and the centre of the pedicle at once retracted, leaving a funnel-shaped depression. On the twenty-first day the menses set in, and lasted for five days without any suffering. During this period, and for three days afterward, a bloody discharge escaped from the exuberant granulations on the end of the pedicle. On the thirty-fourth day the wound had entirely healed and the patient left her bed, and a few weeks later returned to work. The menses were subsequently regular and entirely painless, but at each period a small vesicle formed on the spot where the pedicle was involved in the cicatrix. This vesicle ruptured on the second day, discharged blood for four days, and then rapidly healed.

The patient remained well until December, 1876, when, while in the act of lifting a pail of water, she suddenly experienced a violent pain in the pedicle. The pain persisted, and grew gradually worse, and toward the end of February became so severe that the patient was unable to move herself in bed. Micturition was at first normal, but soon became extremely painful. Examination under narcosis revealed no new growth from the pedicle, and no swelling of any sort. The pedicle could be felt as a tense cord. At the urgent request of the patient a second operation was undertaken on March 3d, 1877. The old cicatrix was laid open, and a portion of the omentum, which was adherent to it, was cut through. The pedicle was found to be adherent to the posterior wall and fundus of the bladder, to the omentum, and to some loops of intestine. These adhesions, however, were easily separated. To check the bleeding from the divided omentum it was necessary to use Paquelin's cautery and tie two small arteries. The cauterized portion of the omentum was brought out through the abdominal wound, and secured there by sutures, and, as a consequence, that portion of the wound did not unite by first intention. The wound finally healed completely, and the patient was again able to go about without pain. Although the pedicle had been completely separated from its parietal connections, and had retracted into the abdomen, a small vesicle formed on the cicatrix at each subsequent menstrual epoch, and discharged blood as long as the period continued.

In January, 1878, the patient again began to complain of severe pain, this time in the region of the right ovary. The pain soon became constant, was markedly increased at each menstrual epoch, and was greatly aggravated by pressure on the abdomen. Up to July the repeated examinations gave negative results; but in that month an examination under an anæsthetic revealed an elongated swelling, about the thickness of a thumb, lying close to the somewhat swollen right ovary. The diagnosis of inflammation of the ovary and tube was then made. As the pain was constantly increasing in severity, and the patient had fever every evening, and was visibly emaciating, a third laparotomy was performed on Aug. 19th, 1878. The incision was made in the middle line, instead of laterally, because a ventral hernia had formed in the lower third of the cicatrix after the second operation. For this purpose the old cicatrix was cut out by a pear-shaped incision, with the base directed downward. After the separation of some slight adhesions, the slightly enlarged ovary, and the tensely distended tube, which was of a deep yellow color, were brought into view, then secured by a double ligature of carbolized silk, and cut off. The uterus, with the stump of the tube, was allowed to fall back into the abdomen, and the wound was closed with silver sutures. The tension in the lips of the wound was removed by a double silver suture introduced at a distance of 4 ctms. from the wound, and by an ingenious arrangement of adhesive plaster. The operation was performed under the carbolic spray. On the following morning the patient was entirely free from the pains previously experienced, and suffered only from a sensation of burning in the wound. On the sixteenth day she was able to leave her bed. The ovary was not diseased. The extremity of the Fallopian tube was firmly attached to the ovary, and was converted into a sac as thick as a thumb, filled with thick, cheesy pus. The walls of the sac were in some places exceedingly thin, and in all probability a perforation would very soon have taken place.—*Berliner klin. Wochen.*, February 3d, 1879.

THE BONY MARROW AS A HÆMATOPOËTIC ORGAN.—M. Ponchet, as the result of numerous experiments, investigations, and comparisons, has come to the conclusion that the marrow of the bone is not, as has been claimed, a hæmatopoëtic organ. He states that the generally received opinion that the hæmaglobine belongs solely to the blood-globules is incorrect; it is also found in connection with several other elements. In 1877 he demonstrated the fact that the leucocytes of fish fix hæmaglobine, and since that epoch this has been found to hold true of the leucocytes of the dog, horse, etc. It is also true of some elements of the bony marrow, certain cells of which, when in a state of degeneration, also fix hæmaglobine. M. Ponchet considers it most probable that there is no hæmatopoëtic organ, the red globules being produced either by a sort of spontaneous generation, or by development from leucocytes.—*La Tribune Médicale*, March 30th, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 5, 1879.

ENGLISH MEDICAL STUDENTS.

We do not know who William Gilbert may be, but we do know that the *Fortnightly Review* is a respectable English journal. Mr. William Gilbert, in the *Fortnightly Review* for January, 1879, after an eulogium upon the character of the medical men of England, makes the following, to us, remarkable statement: "And yet, during the period of their medical education, there is, if police and newspaper reports are to be trusted, no class or profession of young men who come more frequently into collision with the authorities, or exhibit more frequently instances of ungentlemanly behavior. It is computed that no fewer than four hundred out of the two thousand medical students in London, have come directly or indirectly under the notice of the police during the year." We have said that we consider this a remarkable statement. Our English friends are not unwilling to criticise, sometimes unfavorably, American medical men, American medical colleges, and American medical students; but certainly they have never said anything which reflects so severely upon the character of the aspirants for a medical degree as has this writer in the journal from which we have quoted. Whatever may be said of American medical students, it cannot be truthfully stated that they are more frequently the subject of police surveillance than other classes of people. Indeed, we doubt very much if, in the city of New York, during the past year, at a time when we had nearly two thousand medical students, there were twenty-five who ever came under police restriction. It has been thought, in this country, that English medical men were recruited from the ranks of the respectable middle classes—for the moment assuming, with the nomenclature of the English, that the nobility and the gentry constitute the upper classes. But, if the statement we have quoted is reliable, we shall be obliged to think that they are taken from classes who do not know how to behave so as to prevent interference with their actions by the protectors of the public peace. What can be the cause of this most unbecoming conduct on the part of English medical students? Our writer, strange as it may seem, finds the origin in the malorganization of English medical schools. He says that the fault appears to lie considerably more with their teachers and the bad organization, than in the natural manners and habits of the students themselves. This is an incomprehensible thing to us. We have often had occasion to criticise the management of medical schools in America, and we fear that we shall be obliged to do so upon future occasions; but it has never occurred to us that the bad organization and the bad system of our voluntary schools may make men the subjects of moral reprimand from police justices. We have seen no denial of Mr. Gilbert's statements. Perhaps our editorial brethren in London can explain the paragraphs which we have given our readers. Perhaps they can tell us why four hundred medical students are put under arrest every year in the city of London, and why it is that "more medical students have misconducted themselves in the metropolis during the last session than the students of all other professions put together." This writer complains that the medical schools of London are ill-arranged; that the funds collected for charitable purposes for the hospitals are used for the purpose of establishing medical schools; that every hospital in London thinks it should have an institution for the preparation of men for the profession of medicine; that patients, instead of being treated by gentlemen whose names appear as surgeons and assistant surgeons of the hospitals, are treated by students; and that one patient states that he never saw the same young gentleman two days in succession. Our writer also complains that the dissecting-rooms are in the hospital buildings; and that an odor is plainly discoverable in the wards by the patients. Surely we are not amiss in this country if we hold up our hands in holy horror at this state of things in the greatest city of the world. We have been disposed to think that the crudeness and the poverty in our own institutions were excuses at least for our defective arrangements; but no such charges as these can be truthfully made against the New York, and, we suppose, the Philadelphia and Boston medical colleges and hospitals. Students are not arrested in either of these cities by the hundred, and the odor from dissecting-rooms is not wafted into the wards of the hospitals, and patients are not treated by irresponsible medical students. We rejoice in the thought that in all these respects, assuming, as we have said before, that Mr. Gilbert is correct in his statements, the American medical schools are the superiors of those of London. The faults of our schools are the method of cramming students, which is often fatal to well-digested knowledge; the arrangement of all classes upon the same benches to hear the

same lectures; lack of primary examinations; and want of sufficiently thorough final examinations. But we may safely say that the medical students of America compare, as regards character, with any set of men in the country, and we may also affirm that our hospitals are attended by the gentlemen whose names are attached to their reports.

NEW HAMPSHIRE MEDICAL SOCIETY.

THE New Hampshire Medical Society held its annual meeting in the city of Concord, beginning June 17th. The usual number of papers were read and several important topics discussed. The President recommended that a State board of health be established, which is an important step in the direction of preventive medicine. Dr. Twitchell, we fear, unearthed a rough diamond when he laid at the door of rivalry the depreciating opinions so freely given of brother practitioners, and the Society, upon an important ethical question, placed itself in a position closely analogous to that occupied by the Frenchman who refused to save a fellow-being from drowning simply because he had not been introduced to him.

If the advice given with reference to testimony of physicians in court should be faithfully followed, it would at least afford an opportunity for witnesses to avoid bringing additional reproach upon the medical profession through designing lawyers. For genuine ability, the physicians and surgeons in America stand second to none in the world; but one radical defect, however, is that they are too tardy in bringing their claims forward for inspection. Dr. Hall now tells us that he suggested a surgical operation for the removal of biliary calculi more than a quarter of a century ago, and we hope the claim will be sustained for American surgery.

Reports of Societies.

THE NEW HAMPSHIRE MEDICAL SOCIETY.

Eighty-ninth Annual Meeting, held in the City of Concord, June 17th and 18th, 1879.

TUESDAY, JUNE 17TH—FIRST DAY—MORNING SESSION.

THE New Hampshire Medical Society convened at Union Hall, in the city of Concord, on Tuesday, June 17th, and was called to order by the President, Dr. A. F. Carr, of Goffstown.

Prayer was offered by the Chaplain, REV. A. C. HARDY, of Concord, after which the usual committees were appointed by the President.

The Council reported that they had issued twenty-five licenses to practise medicine, and had received twenty-four applications for membership in the Society.

DELEGATES FROM OTHER STATE MEDICAL SOCIETIES.

DR. C. C. FIELD, of Leominster, Mass., and DR. M. H. CHANDLER, of Woodstock, Vt., were introduced as delegates.

THE PRESIDENT'S ADDRESS.

The President, DR. CARR, then delivered the Annual Address, in which he reviewed the history of medical science in New Hampshire. He urged strongly the necessity of establishing a State board of health. Preventive medicine was as applicable to the farm or rural home as to the closely packed dwellings. The address was closed by the history of a case of Colles's fracture, illustrated by drawings.

RABIES.

DR. C. C. ODLIN, of Exeter, related the history of a case of rabies under his care. The patient was a young man, æt. 20 years, who had been bitten by a cat one year ago.

He then delivered an oration on

THE COUNTRY DOCTOR,

in which a graphic account of the responsibilities, the discouragements, and the requirements for success were given. He also argued that alcohol is a food.

MEDICAL ETHICS.

DR. G. B. TWITCHELL, of Keene, read an elaborate paper upon the above subject. Depreciating opinions of brother practitioners might sometimes be the consequence of thoughtlessness; but in the majority of instances they proceeded from a desire to crush a rival. He blamed, in severe terms, the practice of doctors magnifying themselves through "newspaper puffs:" also the practice of indorsing proprietary medicines with certificates. Such indorsements were the chief encouragement to quackery.

REPORT ON SURGERY.

DR. J. H. WHEELER, of Dover, gave a summary of his report on surgery, which embraced, for the most part, special references to the contributions to surgery made to the Society previous to the time when it began the annual publication of its transactions.

THE ANNUAL DINNER.

The Society and its guests, including Governor Head and Mayor Brown, of Concord, partook of the annual dinner at the Eagle Hotel, and it was an occasion for several happy post-prandial speeches.

FIRST DAY—AFTERNOON SESSION.

The Society was called to order at 4 P.M. by the President.

The first paper was read by DR. D. S. ADAMS, of Manchester, on

THE DIFFERENTIAL DIAGNOSIS OF MAMMARY TUMORS.

The paper was elaborate and scholarly.

DR. WHITTIER, of Portsmouth, then read a paper on

GYNECOLOGY.

The paper was well received by the Society.

MEDICAL HISTORY OF DOVER.

DR. J. R. HAM, of Dover, read a paper, which contained a brief history of the physicians of the city of Dover since the year 1623.

The paper gave rise to discussion on ethical questions; and the opinion prevailed "that only in cases of the direst extremity, when human life was in peril, and the demands of humanity irresistible, would it be justifiable in a regular physician to attend a case in

the hands of an irregular one, and then he should take the entire control and direction thereof."

OPINIONS AND TESTIMONY OF PHYSICIANS IN COURT.

Dr. Hill, of Dover, read a paper on the above subject, in which several instances of legal injustice, begotten by immature medical testimony summarily exacted, were related. The earnest advice was given to refuse attendance in courts of law as witnesses unless opportunity had first been given to consider fully the subjects upon which testimony was required. That portion of the paper was warmly indorsed by the Society.

Evening Session.

The evening session opened with the reading of a report on necrology, by Dr. M. C. Lathrop, of Dover.

Obituary notices were read of Dr. Ezra Carter, of Concord; Dr. A. M. Winn, of Manchester; Dr. A. Tremblay, of Manchester; Dr. Timo. Kenrick, of Franklin; and Dr. T. H. Jewett, of Berwick, Me. (Hon. member.)

ORIGIN AND TREATMENT OF DIPHTHERIA.

Dr. Watson, of Groveland, read a paper on the above subject, in which he gave his experience in a severe epidemic occurring in May, 1878. Of 110 cases he had 11 deaths. His treatment consisted in strict attention to hygiene, the use of disinfectants, and the internal administration of the muriated tincture of iron in small doses, frequently repeated (four or five drops every half-hour), with a teasponful of a saturated solution of chlorate of potassa between. No local applications were made. The nourishment consisted chiefly of cold milk. Alcohol was used only in cases of extreme prostration. Paralysis, blindness, deafness, and anæmia were among the sequelæ; but total recovery ensued, with only a single exception.

The paper gave rise to a prolonged discussion, and there seemed to be a general concession that the disease was not a constitutional one, and that whatever constitutional conditions might favor it, they proceeded from such influences as malaria and exposure to impure effluvia.

The Society then adjourned to meet Wednesday at 8 A.M.

Wednesday, June 18th—Second Day—Morning Session.

The Society was called to order at 8 A.M. by the President.

Delegates representing the Society in other medical societies made their reports, which were referred to the Committee on Publication.

SEMI-ANNUAL MEETING.

The semi-annual meeting will be held at Hanover.

TREASURER'S REPORT.

The Treasurer, Dr. G. B. How, of Manchester, presented his report, which showed a funded capital of the Society of $1,100.

CHOLECYSTOTOMY.

Dr. Hall, of Dover, reported at length from the Maine State Medical Society. He described the Society as very flourishing and well ordered.

Incidentally, Dr. Hall claimed to have first suggested removal of biliary calculi by surgical operation, and that he brought the subject to the notice of Drs. Dixi Crosby, and E. R. Peaslee over thirty years ago. The more recent claims made with reference to the origin of the operation, both in this country and in Europe, were not well founded.

OFFICERS FOR THE ENSUING YEAR.

The following gentlemen were elected officers for the ensuing year:

President.—Dr. T. J. W. Pray, of Dover.

Vice-President.—Dr. G. P. Conn, of Concord.

Secretary.—Dr. M. W. Russell, of Concord.

Treasurer.—Dr. Lyman B. How, of Manchester.

Executive Committee.—Drs. P. A. Stackpole, of Dover; J. W. Parsons, of Portsmouth; and A. H. Crosby, of Concord.

Anniversary Chairman.—Dr. F. A. Stillings, of Concord.

It was voted to increase the number of members of the Council from ten to twenty, and the Executive Committee was authorized to nominate and to appoint.

The President and Vice-President were introduced, and Dr. Pray returned thanks for the honor conferred upon him, and pledged his best efforts for the advancement of the interests of the Society.

After the adoption of resolutions on certain ethical relations, and a minute inquiry with reference to a case of hydrophobia occurring in Concord, the Society adjourned.

THE AMERICAN NEUROLOGICAL ASSOCIATION.

Fifth Annual Meeting, Held in the City of New York, June 18, 19, and 20, 1879.

Wednesday, June 18th.—First Day—Afternoon Session.

The Association was called to order at 3 P.M., by the Secretary, Dr. E. C. Seguin, of New York, who introduced the President, Dr. F. T. Miles, of Baltimore, Md.

The President thanked the Association for the honor it had conferred upon him in his absence, and proceeded with the regular order of business.

On recommendation of the Council, the resignations of the following gentlemen were accepted: Dr. A. McLane Hamilton, Dr. D. B. St. John Roosa, and Dr. E. G. Loring, of New York; and Dr. Swan M. Burnett, of Washington, D. C.

The Treasurer's report was read, and showed a deficit of $20.89, which the Treasurer stated would be covered when the annual dues were paid.

CANDIDATES FOR MEMBERSHIP.

Dr. William A. Hammond nominated Dr. W. J. Morton, of New York; and Dr. E. C. Seguin nominated Dr. R. W. Amidon, of New York, for membership in the Association.

The essays of the candidates were referred to the Council for examination and report.

MISCELLANEOUS BUSINESS.

Under the head of miscellaneous business an amendment to the constitution was made providing for the transaction of all business by the Council subject to revision and approval by the Association.

An amendment was also offered by Dr. Grey, of Brooklyn, providing for forfeiture of membership by non-attendance upon two consecutive meetings, unless satisfactory excuse could be rendered to the Council.

GUNSHOT-WOUND OF THE NECK—PARALYSIS OF THE CERVICAL SYMPATHETIC, FOLLOWED BY INSANITY,

was the title of a paper sent by DR. H. M. BANNISTER, of Chicago, Ill., and read by the Secretary.

The peculiarity of the case reported was, that it exhibited an apparent consequence of these injuries which had not been heretofore reported. The ball from a revolver entered upon the left side of the neck between two and three inches above the clavicular origin of the sterno-cleido-mastoid muscle, directly upon its anterior or inner margin, and, passing backward and a little downward, was lost in the tissues.

The leading symptoms were exophthalmos of the right eye; enophthalmos of the left eye; inequality of the pupils, the right being the largest; and a difference of 1° C. in the temperature of the two sides of the face. There was no tenderness upon pressure on any part of the neck, no ptosis, and no history of any lesion of important nerves save the sympathetic. It was as nearly a case of uncomplicated injury to the cervical sympathetic as he had seen recorded. The chief feature of interest was the connection the case had with mental disorder. There was no history of special neurotic tendency or symptoms of mental disorder antedating the reception of the wound, and no known cause of the insanity, except the wound. He had delusions, hallucinations, and occasionally signs of paralysis. The patient believed himself to be the bishop of Chicago, and thought he had power to make people tell their secrets.

DR. WILLIAM A. HAMMOND, of New York, remarked that Dr. Bannister had barely glanced at the most important part of his case. He had alluded to the fact that the man had *délire en grandeur*, but had avoided altogether association of disease of the sympathetic nerve with the general paralysis of the insane.

He was astonished that so good a scholar as Dr. Bannister should pass so lightly over such an important point. Lesion of the sympathetic existed in most, if not all cases of general paralysis of the insane. In this case whatever brain lesion there was must have been secondary to the injury of the sympathetic, and, therefore, possibly originated in the latter.

The case also went to confirm the opinion that the mind, whatever it was, existed in gray nervous matter wherever found, as well as in the brain itself.

DR. E. C. SEGUIN, of New York, remarked that before accepting the case as one of general paralysis of the insane, it would be desirable to scan the semeiology. The only symptom alluded to in the report that would lead to that supposition was the *délire en grandeur*. Dr. Bannister had not mentioned fibrillary movements of the muscles, peculiar speech, epileptiform attacks, or other varieties of ambitious notions, and simply stated that at one time the patient supposed he was bishop of Chicago, and that he also had power to make people reveal their secrets. But, leaving aside the psychical symptoms, Dr. Bannister had not mentioned the physical symptoms, which were never absent in general paralysis of the insane. He should admit that there was chronic cerebral hyperæmia simply, but should be reluctant to classify the case with general paralysis of the insane.

DR. HAMMOND remarked, he was the first to call attention to the fact that, in general paralysis of the insane, physical symptoms manifested themselves before mental symptoms were developed. He had been told by a number of superintendents of insane asylums that they had never, rarely if ever, hardly ever, at least, seen a case of general paralysis of the insane in its earliest stages. Consequently, those who had written upon the subject really knew nothing about the primary symptoms, which were physical.

DR. PUTNAM, of Boston, objected to the admission of the evidence regarding the patient's psychical condition, and could not see why this injury, situated in an important nerve tract, should act in any other way than through peripheral disorders.

DR. J. J. PUTNAM, of Boston, exhibited a new

RHEOSTAT,

made of German-silver wire, wound upon pegs, and having a sliding clasp, by means of which the intensity of the current could be steadily and conveniently increased, without liability of breaking the current. It was to be attached to the battery as an accessory circuit.

Dr. Putnam also made some remarks with reference to

BATTERIES OF HIGH AND LOW TENSION.

DR. HAMMOND, of New York, remarked that rheostats were really of no value whatever in the practice of medicine. The only practical apparatus was something which enabled us to bring a greater or smaller number of cells into the circuit at the same time, and then some temporary arrangement for making and breaking the circuit.

DR. PUTNAM allowed all that Dr. Hammond said was true; but the apparatus presented simply permitted of gradual increase in the intensity of the current, and small batteries lasted longer when all the cells were used than when only a part were employed.

DR. BEARD, of New York, remarked that at one time he experimented with all forms of rheostats, but after a while he got out of the way of using any. He thought that his experience was not at all exceptional. Theoretically, they sounded well, and appeared well when written out in full detail; but his experience had been that they possessed no special practical value. For him, pressure of the sponge made a very good rheostat.

DR. A. D. ROCKWELL, of New York, thought the rheostat suggested by Dr. Beard—namely, pressure upon the sponge—a rather slip-shod method of management. Every movement of the sponge upon the body might cause a variation in the strength of the current, and for that reason it was difficult to give it exact control. He agreed that there was a vast amount of unnecessary refinement in apparatus employed for the application of electricity; but he had come to believe, at the same time, that some refinement was essential, therefore he employed the rheostat much more than formerly.

DR. MILES, of Baltimore, remarked that he used the water rheostat constantly, and found it a very great convenience, especially when using electricity on children.

DR. E. C. SEGUIN remarked that it was next to impossible to prevent interruption of the galvanic current by the wire apparatus sliding bar, and thereby avoid giving disagreeable shocks to the patient. He thought the chief advantage of a rheostat was the ability it gave to commence with a large number of cells, and gradually increase the current until sufficient sensation was produced—the sensation of the patient being the guide. An objection to the water rheostat was that while it answered very well up to a certain point, where the metallic points were within a short distance of each other, it was almost impossible to bring them nearer without bringing them together, and thus give rise to a shock. The attachment of a micrometer screw and guard would be a decided advantage in

DR. J. J. MASON remarked that, for a mild current,

a metallic rheostat was preferable to a water rheostat, because of the great resistance offered to the primary current by the water, consequently a diminution in the intensity of the current. Anything like an improved rheostat he regarded as important.

The Association then adjourned, to meet at 8.30 P.M.

FIRST DAY.—EVENING SESSION.

The Society being called to order by the President, a paper was read by DR. GEORGE M. BEARD, of New York, on

MORBID FEAR AS A SYMPTOM OF NERVOUS DISEASE.

The emotion of fear might be a normal one, varying in degree and kind with race, sex, and individual. It might also be a truly pathological symptom, evidencing in such case disorder of the nervous system. Normal and morbid fears might shade into each other, so that it was difficult to draw the line between them.

These morbid fears might be classified and named for convenience of study, and for the purpose of preventing their confusion with hysteria, hypochondria, dyspepsia, and actual insanity, to which conditions they were often referred. There were quite a number of morbid fears associated with neurasthenia without delusions or hallucinations.

The following classification might be given:

Astraphobia (first described by Dr. Beard a number of years ago), in which there was great fear of lightning during and before thunder-storms, that fear being preceded and accompanied by headache, numbness, pain in the back, nausea, vomiting, and even convulsions. In one of his patients suffering from that symptom, the condition was inherited from the grandmother.

Agoraphobia was a name given by Westphal, of Germany, to those having a fear of places. The term was not an accurate one, and *topo*phobia should be used in its stead, agoraphobia being only a species of topophobia, and embracing those cases in which there was a fear of open squares. As an illustration of topophobia, one of his patients could walk up Broadway without fear or difficulty, on account of the numerous stores and side-streets, into which he knew he could run, in case of supposed danger presenting itself; but he could not walk up Fifth Avenue; he could not visit the country at all. He was a tall, vigorous man, and had no other symptoms of cerebral disturbance. The cases often took an opposite phase: the patients were unable to go to certain places; perhaps where they were first attacked with the evil symptoms. Some found it difficult to go on long journeys. A patient in a distant city wrote that he was coming to visit him, but after getting part of the way he had to return. Some persons had a fear of confined places. A gentleman suffering thus was obliged to camp out in the summer and sleep in a very large room in winter. He finally had to leave the city and become a farmer.

Anthropophobia, that Dr. Beard had lately described, had for its symptoms an aversion to society; fear of seeing any one; sometimes there was fear of women alone; sometimes, as in one of his patients, fear of respectable women alone.

Pathophobia, or fear of disease, was generally known under the name of hypochondriasis. Photophobia was a term that might be applied to some patients who feared that they might fail if they made an attempt to do anything.

Mysophobia, or fear of contamination, had lately been described by Dr. Hammond.

In regard to all these different forms of fear, the following general propositions were made:

1st. They were symptomatic of functional, rarely or never of organic disease. They were not, according to his experience, found in insanity or sclerotic conditions, and were no form of that disease. The morbid fears of the insane were delusions or hallucinations.

2d. The symptoms might come and go suddenly.

3d. They often were the result of disorders of the reproductive organs in male and female, but might continue long after such disorder had been cured.

4th. They rarely existed alone, but almost always were associated with other symptoms of disorder of the spinal cord or brain, especially of the brain. Among those symptoms were palmar hyperidrosis, dizziness, numbness, shooting pains in the extremities, oxaluria, etc. All those symptoms were by no means uniformly present. The patients might be of great muscular development, and capable of great bodily toil. The treatment required both constitutional and local measures. The former included the whole array of sedatives and tonics; electricity, bromides, counter-irritation at the back of the neck, and counter-irritation of the bowels by means of cathartics. The local troubles should be appropriately treated. The cases could be permanently cured, but not in any short time.

DR. J. J. PUTNAM, of Boston, asked if the vertigo ever occurred without being excited or accompanied by any motor idea or intention?

DR. BEARD thought that it did.

DR. J. J. MASON, of New York, referred to the very common occurrence of fear of lightning and storms, especially with women, and asked why this should be distinguished as a special morbid symptom?

DR. BEARD said that in the cases given there was much more than ordinary fear. The patients often suffered from nausea, vomiting, dizziness, and even convulsions.

DR. A. D. ROCKWELL, of New York, said that, without being able to give any special examples to the contrary, he nevertheless could not accept the statement that these fears were always the result of functional, rather than organic derangement.

DR. BEARD, in reply, said that it was his experience that the facts were as he stated.

DR. E. C. SEGUIN, of New York, remarked that while the minute study of a symptom of this class was very interesting, it was hardly profitable in practice. He had always found numerous other symptoms with those described by Dr. Beard, and those others were generally of the greater importance. It was better also to look at the symptoms as a whole; to study the patient as a physiological unit, rather than investigate some particular symptom, which might be more curious than important. His experience agreed with Dr. Beard's in regard to the existence of functional derangement only in connection with these morbid fears.

DR. BEARD, in reply, said that he thought the great aim should be to discover the true pathological state of the patient. A study of the symptoms about which he had written helped very often in this direction, and was therefore valuable for diagnosis, prognosis, and treatment. These morbid fears were symptomatic of cerebrasthenia (brain exhaustion), and in a large proportion of the cases (but not in all) that cerebrasthenia originated in the genital organs—uterine displacements and disorders of the neck of the uterus—and disease of the prostatic urethra in the male, from natural or unnatural excess.

DR. WEBSTER, of New York, by permission of the Society, related a case of morbid fear that had come

under his notice. A woman, 40 years old, had always from infancy been afraid of severe storms, high winds, thunder and lightning, and to those who were acquainted with her it seemed as though she was insane at such times. When a storm arose at night, for instance, she would rouse the whole house and walk the floor in the greatest distress until it subsided. She did not suffer any pain, but only from nausea. He was told that her mother, while pregnant with her, had been severely frightened by a thunder-storm. The patient's condition was attributed by the friends to that fact.

Dr. —— agreed with Drs. Beard and Seguin that morbid fears were evidences of only functional disturbance. In his experience they were very often associated with lithuria or oxaluria.

Dr. Spitzka thought that there could not be any sharp line drawn between morbid fear in the sane and insane. It was a frequent accompaniment of insanity, and often the first symptom of it.

Dr. Spitzka then related the following case of

REMARKABLE SYMPATHETIC DISTURBANCE:

A young man, a persistent masturbator, while engaged in the act suddenly heard a noise like the crack of a pistol in his head. From that time he became melancholic; he noticed that one-half of his face, on the side where he had heard the sound, was hotter, and perspired more than the other. In about three weeks a carbuncle appeared on the back of the neck near the third cervical vertebra. After this, irregular yellow spots appeared on the affected side of the face, the parts atrophied, the hair became white and there were differences in the pupil. His mind became somewhat affected. It was suggested that the sound was probably due to a sudden vascular disturbance.

In a short discussion which followed, Dr. Spitzka referred to the fact that experiments and investigations showed the sympathetic system to be independent of mental disturbances, and that it could be greatly injured or diseased, and yet the mind not be at all affected.

The Society then adjourned to meet Thursday, at 2.30 P.M.

(To be continued.)

THE PHILADELPHIA COLLEGE OF PHYSICIANS.

Regular April Meeting.

(Reported for The Medical Record.)

UNUNITED FRACTURE OF THE TIBIA OF TWELVE YEARS' STANDING—PRESERVATION OF A USEFUL LIMB.

Dr. William S. Forbes brought a man before the college and read the following history: A seaman, thirty-six years of age, and in full health, was admitted to the Episcopal Hospital three weeks ago with an ulcer on his leg. His ulcer is now well; but he has an ununited fracture in middle of right tibia. No bone is thrown out. The two fragments are held together by a short, dense, fibrous deposit. There is a limited amount of motion between the fragments. The patient can walk about without pain, and without the support of a splint, bandage, or cane. Has often walked as much as fifteen miles a day, and carried heavy weights long distances. Examination shows that the fibula was not broken, and hence serves as a splint to the ununited fragments of the tibia. This fact explains the sensation of pulling experienced at the upper tibio-fibular articulation after long walks.

The fracture of the tibia took place twelve years ago, the soft parts being cut to the bone, and the latter shattered by a blow received from the end of a broken rope. He was in the Pennsylvania Hospital for fourteen months after the accident. During this period, and for twenty-two months afterward, a tin splint was worn around the leg, and the patient moved about in a rolling chair. At the end of three years he got out of his chair, and, after using a crutch for a short time, abandoned it for a cane. Since then he has led an active life, and has never been laid up or disabled in any way.

In all this time no change has occurred in the limb. Just at the line of fracture, and a little above and below it, the bone is covered by dense fibrous tissue, serving as a stay-ligament to hold the fragments in apposition. This ligament becomes very tense when the man stands on that leg.

The affected extremity is just half an inch shorter than the sound one. This slight shortness is no doubt the result of absorption of the extremities of the fragments. The fibula on the fractured side is not bent or curved, nor is it enlarged to any perceptible degree. In this respect it differs from the one in the museum of St. Thomas' Hospital, mentioned by Dr. Norris in his "Contributions to Practical Surgery," in which the increase in size was great.

It was hard to account for ununited fracture in the case under consideration, as the man had no taint or vice of system, and as he had received proper treatment at the hands of excellent surgeons. There seemed to have existed in this man what Sir James Paget calls "a simple defect of formative power;" a defect which cannot be explained, and which seems the more remarkable when we observe the many changes which may at a later time be effected, as if to diminish the evil of the want of union.

ILLUSTRATIONS OF THE VALUE OF TEALE'S METHOD OF FORCED DILATATION OF THE SPHINCTER VESICÆ IN INCONTINENCE AND EXCESSIVE IRRITABILITY OF THE FEMALE BLADDER.

Dr. Addinell Hewson read a paper with the above title, giving the history of six cases of incontinence and irritability of the female bladder treated by forced dilatation.

Case I.—Female, æt. 30. Dr. Hewson had treated the patient for severe vaginitis and endometritis, a result of gonorrhœa. Examination revealed both sets of labia much swollen, and great tenderness of the external genitals. Prolapse and retroflexion were also both detected. There was great irritability of the bladder. These troubles were all relieved by the use of a douche-bottle, double catheter, and medicated sponge-tents. Her retroflexion was subsequently treated by means of a whalebone intra-uterine stem-pessary. Six months later Dr. Hewson was suddenly called in haste, and found patient suffering intense agony from inability to urinate. An explanation was found in the fact that the menses had been suddenly arrested on the second day following exposure to severe cold, and that since that time the patient had suffered from lumbar pains, headache, constipation, and nausea. Great erethism had arisen, which had been relieved by severe scratching. Great tenderness of the abdominal walls was found to exist. The catheter was introduced, but only removed f ʒ ss. of high-colored urine free from pus and blood. The introduction of the catheter caused the patient to scream with pain. Inspection showed the case to be one of acute sphincterismus with great inflammation of the parts.

Anæsthesia was produced by rapid breathing, and

an Ellinger uterine dilator was passed the whole length of its blades into the bladder without causing any pain or bleeding. The operation, which lasted fifteen minutes, was free from pain, although the patient was fully cognizant of what was going on.

The dilatation was followed by most complete relief. No dressing to the parts was ordered, but she was told to remain in bed. Since that time there has been no return of the bladder trouble.

Case II.—A widow lady, who had been under treatment for prolapse, attended by great irritability and catarrh of the bladder. When summoned to see the patient on February 22, 1876, Dr. Hewson made a digital examination, and found the bladder excessively sensitive to the touch. The patient's sufferings were so great upon this occasion as to make her act and look like a maniac. Questioning elicited the fact that the great irritability of the bladder had existed ever since the birth of her first child, sixteen years ago.

Teale's method of dilatation was at once resorted to without any attempt at producing anæsthesia. The Ellinger was passed quickly, without any warning, into the bladder. In twenty minutes the urethra was sufficiently dilated to allow of the passage of the index finger into the bladder. There was no bleeding, and all inclination to pass water constantly was removed. The tenderness along the line of the operation was alleviated by the application of some wet clay. The patient has never had any sign of sphincterismus since that time.

Case III.—Robust married lady, æt. 38; barren. This barrenness, said to be due to prolapse and retroflexion, was treated by the introduction of a Meigs ring-pessary. This instrument was allowed to remain three years *in situ*. Two years after the removal of the pessary the lady became Dr. Hewson's patient, complaining of vaginitis and irritability, which, she said, had existed ever since the ring-pessary had been first introduced. This vaginitis was treated by Dr. Hewson by injections and applications. The speculum showed indurations and thickening all around the place where the pessary had been. On February 22d the patient had an intense attack of irritability and incontinence. The patient preferring not to be rendered insensible, the Ellinger dilator was at once introduced, but very cautiously, on account of the spasm of the sphincter. The dilatation was steady and forced, rather than rapid. The operation occupied half an hour. The patient seemed to be relieved.

Orders were left that clay should be applied constantly to the parts. Recovery was slow, but sure. The irritability recurred several times, but each attack was lighter. The patient is now entirely free from her old trouble.

These three cases occurred all in one day.

Case IV.—A widow lady, who consulted the writer for a large fibro-cystic tumor, which had been diagnosed by the late Dr. W. L. Atlee as springing from the broad ligament and body of the uterus. Even at that date the patient complained of troubles with her bladder.

Some six weeks later, when the tumor had diminished several inches under the earth-treatment, the symptoms of vesical irritability became more marked. A vaginal examination revealed most positive sphincterismus, without any thickening or induration. Analgesia was produced by rapid breathing, and the whole length of the urethra was then rapidly dilated by means of the Ellinger instrument. Clay was applied daily for a short time. There has never been any return of the bladder symptoms since the operation. The tumor has decreased in size at the rate of two inches per month.

Case V.—Married lady, æt. 43, still menstruating, consulted Dr. Hewson in 1877 about bladder troubles. Examination showed a large, tender, fatty growth in the right side of the abdominal walls. There was not much sphincterismus. The patient said that this growth was the result of a blow received on the parts some years ago, and said that the tumor and bladder symptoms developed constantaneously. The clay-treatment dissipated the tumor entirely in the course of four weeks, but the bladder symptoms persisted. There was great difficulty experienced in detecting the orifice of the urethra, but when found the Ellinger was rapidly introduced. The introduction was the cause of much pain to the patient. The dilatation lasted fifteen minutes. There has not been any return of the trouble since. Subsequent inquiry traced the inception of the bladder trouble to the birth of her first child, twenty-three years previously.

Case VI.—Patient aged 45. Had suffered constantly since the birth of her first child, twenty-three years ago, with incontinence. When first seen by Dr. Hewson she had an expression of the most extreme anxiety and despair. Analgesia was brought about in ten minutes by rapid breathing. Examination then revealed sphincterismus without thickening of the tissues, but with well-marked retraction.

The Ellinger was introduced and its blades passed completely into the bladder. Dilatation lasted five minutes. Clay dressing was then applied. The results in this case were of the most flattering description. Complete relief followed rapidly upon the operation.

In closing, Dr. Hewson desired, as the title of his paper showed, to give the fullest credit to Mr. Teale for the origination of the idea of the method of treatment employed, but to make known his own ignorance of Mr. T.'s *plan* of procedure. He had operated in all his cases with the patient reclining on the left side, the orifice of the urethra being much more accessible in that position than in any other. The entrance once effected in this manner by an instrument, the latter can be readily and quickly glided along the passage by simply moving its handle or near extremity forward in the segment of a circle, provided that the curve of the instrument is looking backward.

After the reading of the foregoing paper, Dr. Goodell spoke as follows:

"I have performed the operation of forcible and rapid dilatation of the urethra some fifty times at least, and have so often cured by it bladder troubles of long standing, that I wish to add my testimony to that of Dr. Hewson as to its efficiency. The female urethra does not possess a true sphincter, but, from the meatus urinarius exclusive to the neck of the bladder inclusive, it is surrounded by a network of muscular fibres, which firmly constringe it, and act the part of a powerful sphincter. It is the spasmodic or the organic contraction of this broad belt of fibres that makes woman more liable than man to urinary disturbances.

"While warmly advocating the operation of rapid dilatation of the urethra, I wish to point out certain risks attending it, to which Dr. Hewson has not adverted. One is incontinence of urine. This result I have not thus far seen in any of my own cases, because I dilate simply to the extent of the girth of my index finger, which is of medium size, and no further. But I have twice met with it in cases operated upon by other physicians, and in each the thumb had been forced in. This experience has led me to think that

there is danger in making the dilatation too great. The other risk is that of hemorrhage, either external, from the rent often made in the upper margin of the meatus, or internal—into the bladder—from the rupture of the tense and thin fold of mucous membrane often found at the neck of the bladder. I have several times met with the former, and have been obliged to use styptics. On one occasion I was compelled, in a pregnant woman, to close the rent by a metallic suture, passed deeply in, before I could check the bleeding. I have occasionally met with cases of internal bleeding, but, although one of them lasted for three days, I have not found it needful to interfere by styptic injections.

"I would further remark that in the selection of cases for dilatation it is important to distinguish between purely hysterical cases and cases in which there exists a real tonic contraction of the urethral muscular fibres. For while the operation almost always benefits the latter, it will sometimes increase the urinary troubles in the former."

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 28, 1879.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

EXTIRPATION OF THE BONES OF THE NOSE AND MOUTH BY THE USE OF THE SURGICAL ENGINE.

DR. D. H. GOODWILLIE read a valuable paper upon the above subject, which will be published in a subsequent number.

INTRA-VASCULAR ALIMENTATION: THE NUTRITIVE VALUE OF PEPTONES.

DR. GEO. B. FOWLER read an exceedingly important paper upon the above subject, in which he brought forward peptones as an article to be introduced directly into the circulation in cases in which nutrition could not be properly sustained by gastric or rectal alimentation.

Dr. Fowler then traced the processes of digestion, and demonstrated how nutrition was maintained by albuminates, hydro-carbonaceous substances, salines, and water. The practical results of introducing blood directly into the circulation had amounted to but very little indeed. We could not throw blood into the veins and expect its *assimilation*, because it was a tissue, and not a reservoir of food prepared for assimilation. The cases of success in transfusion of blood in the lower animals were those in which there had been severe loss of blood, and the vessels required the stimulus of distention. There was a class of cases, such as exhaustion from traumatic hemorrhage, in which the stimulus of distention was required, and the transfusion of blood in such cases had in many instances been successful.

When, however, blood was taken into the stomach it was not absorbed as blood, but underwent a change the same as other food. Such change was necessary, and could not occur when the tissue blood was thrown immediately into the circulation. With the view of introducing nutritive material directly into the circulation, Drs. T. G. Thomas, J. W. Howe, W. E. Bullard, and others, had resorted to intravenous injections of *milk*. The position had been taken that milk was not unlike chyle, but Dr. Thomas's recommendation of it had been based upon practical results rather than upon chemical or physiological bearings. Dr. Fowler then proceeded to criticise the tables that had been made with reference to milk and chyle, and claimed that intravenous injections of milk were unphysiological. There was no constituent in chyle similar to the casein of milk. The milk globules were enclosed in an albuminous envelope, and were soluble only at a temperature of 115° F.; and he was not able to understand how any of the proximate principles of milk could be digested when introduced directly into the circulation.

ALBUMINOSE OR PEPTONE FOR INTRAVENOUS ALIMENTATION.

Dr. Fowler then brought forward a new article, albuminose or peptone, to be used for intravenous injections to sustain nutrition. It was digested albumen. It was the result of the action of gastric juice upon albuminous substances. It differed from albumen in its chemical reaction and physical properties. Dr. Fowler then gave a demonstration of the difference between the new preparation and albumen, as shown by various reagents, such as mineral acids, heat, alcohol, ferrocyanide of potassium, etc., etc.

The substance was obtained from finely chopped beef, by continuous boiling for forty-eight hours or more, under pressure with a weak solution of hydrochloric acid. The reactions of the albuminose, as distinguished from albumen, were very marked, and the new product was not precipitated by heat. Dr. Fowler proposed to use this substance as a substitute for milk and blood for intravenous injections to sustain nutrition. He had experimented upon several animals, and had injected large quantities in cats and rabbits, and in each instance it had been assimilated; that is, it did not reappear in the urine.

Of its nutritive value there was considerable evidence. As an example, a rabbit had been sustained for five or six days by rectal alimentation [the new product being used]; there were no fæces, and the animal did not lose flesh. Dr. Fowler then made special reference to a case which he saw in consultation with Dr. Mundé, and in which resort was had to intravenous injection of the new substance, and with permanently beneficial results. About ℥ iij. of the liquid, corresponding to ℥ vi. of meat, were thrown into the veins, and the vomiting and all other disagreeable symptoms dependent upon perilous hemorrhage from cancer of the uterus rapidly subsided, and the patient was soon able to take food by the stomach with comfort.

The paper being before the Society for discussion, DR. P. F. MUNDÉ gave a somewhat detailed history of the case to which Dr. Fowler had referred. The hemorrhage was exceedingly profuse, and the exhaustion was so great that he did not remove her from the table for twelve hours; at the end of that time she was removed, her pulse was rapid and feeble, and she was unable to retain anything upon her stomach. On the following day she was in very much the same condition, and was able to retain only small pieces of ice dipped in brandy. The median cephalic vein was exposed, and two and a half or three ounces of the albuminose was injected by Dr. Fowler, and about an ounce escaped into the cellular tissue, on account of an accident relating to the instrument. The fluid that found its way into the cellular tissue was *readily absorbed*.

The patient's pulse and temperature rose, fell a few hours afterward, and she had marked rigor, which was soon followed by well-marked, though not severe, symptoms of collapse. The symptoms, said Dr. M., were almost identical with those developed in one of Dr. Thomas's cases, in which recovery took

place after intravenous injection of milk. The patient became delirious; so much so that it became necessary to administer opium to keep her quiet. On the following morning she was very comfortable and was able to take milk, brandy, and water; her pulse was 102, and her temperature was about normal. From that time she did very well, and Dr. Mundé thought that she would not have lived two days had she not received the nourishment afforded by the intravenous injection.

Dr. J. C. Dalton remarked that ever since the time when transfusion of blood first attracted the attention of the profession, it had passed through a regular series of periods in which it had been adopted and used with a great deal of enthusiasm and expectation, and then dropped and allowed to remain in oblivion perhaps fifty or seventy-five years, and again taken up with certain modifications and claimed improvements. Now we had the transfusion of other substances besides blood, and in addition to milk, which had been used in several cases, Dr. Fowler had called the attention of the profession to the value of peptone for intravenous injections to sustain nutrition. Peptones were bodies which we did not, by any means, fully understand, and probably the same could be said of all albuminous substances.

There were certain characteristics well understood, such as that they were nitrogenous, nutritious, non-coagulable by heat, etc., etc.; but it was not quite so easy to understand why it was that they did not go out of the blood-vessels. He regarded it as a suggestive idea to prepare peptones artificially, and to use them for intravenous alimentation. He thought that Dr. Fowler had employed an extremely appropriate term—namely, "*intravenous alimentation.*" The term suggested to him the difference between the object aimed at by the injection of peptones and that sought by transfusion of blood. When blood was transfused from one person to another it was not for the purpose of alimentation; at least, where it had been so used, it had not been successful. But in cases in which there had been great loss of blood, in which there was no want of ability to take food, and in which there was a simple deficiency in the quantity of blood, it was his conviction that under those circumstances nothing had been found comparable with blood for intravenous injections. A certain quantity of blood was necessary to sustain life and keep the machinery in motion, and when from loss of blood the machinery was about to cease to move, the introduction of a small quantity of blood into the veins—it did not require a large quantity—stimulated it to renewed action in a manner we did not understand. In the cases, however, in which there was a demand for nutrition another condition of things existed.

An objection to injection of blood, perhaps that most frequently urged, was the difficulty of the operation. Dr. Dalton respectfully suggested that that was not an objection worthy of consideration. For nearly all operations that were valuable were difficult, and if an operation was legitimate and useful its difficulty was not a fatal objection to it. It was equally difficult to find a vein in exhaustion, either from hemorrhage or collapse, and when once lost it was very difficult to find it again. There was another point, and that was with reference to the meaning of the threatening symptoms which manifested themselves after transfusion of blood or intravenous injections, such as delirium, pain in the head, oppression of respiration, etc. He had a strong conviction that the exact mode in which the mechanical operation was performed had much to do with the development of those symptoms. It was not the simple injection of air bubbles into the veins that constituted the most dangerous part of such an operation, for that might occur without producing fatal results, but in some manner the heart's action was arrested for other causes, such, perhaps, as the fact that the fluid was a little too warm or a little too cool, or it was thrown in a little too rapidly, or was a little too strong, or a little too weak. He believed that the disagreeable symptoms were in some way connected with the mechanism of the operation.

In conclusion, Dr. Dalton thought it important to bear in mind that the condition of a patient suffering from exhaustion due to severe hemorrhage was different from that induced by lack of nutrition.

The Society then adjourned.

Correspondence.

A RECENT MEDICO-LEGAL CASE OF INTEREST.

To the Editor of The Medical Record.

Sir:—The late trial in Philadelphia of Edward Parr for the killing of his daughter, Susan Irwin, and the subsequent suicide of the condemned murderer, are not devoid of several points of very general interest to the medical profession throughout the land. In their efforts to discover some feasible defence of the act of murder committed by Parr, the defending counsel came upon the marks of an old fracture of the prisoner's skull, which led them to adopt the novel theory that the murder had been committed by Parr under the influence of a fractured skull and injured brain which had never recovered its wonted condition of health, but which had been subject to chronic irritation and inflammation. An oculist of experience and reputation, who was engaged by the counsel for the defence, testified that he had made an examination of the prisoner's eyes, and had found them in an abnormal condition, which condition must have been caused either by a fracture or by a tumor of the brain. Among the physicians placed upon the stand were the coroner's physician, Dr. Henry C. Chapman, and Drs. John H. Packard, William Hunt, and John Ashhurst, Jr. The testimony of these gentlemen varied somewhat; most of them agreeing, however, upon the fact that the skull did present the marks of an indentation or depression just above the attachments of the ear, which was presumably the result of an old fracture. One physician testified that the prisoner seemed to have some abnormal sensations in the vicinity of this scar when it was pressed upon; and, upon cross-examination, stated that a low state of inflammation might exist for years in a man's brain. The other gentlemen did not commit themselves so positively with regard to the probable origin of the depression or irregularities in an old fracture, and all of the testimony was non-committal as to whether there was or was not a depression of the internal table of the skull.

In spite of the ingenious argument of the defence, the jury brought in a verdict of murder in the first degree. The prisoner was placed in the dock, and the judge had just passed sentence, when Parr half raised himself from his seat, and then fell heavily forward on the floor. Physicians were at once summoned, and proceeded immediately to treat the patient for strychnia poisoning. They gave him *a hypodermic injection of morphia and injections of turpentine and whiskey*, and

a stomach-pump was also used. After working for some time, the doctors said that it would be a miracle if the man's life were saved. The ingesta removed from the stomach by the pump were preserved for analysis. It was at half-past one o'clock that Parr first showed symptoms of poisoning.

Shortly after five o'clock his pulse dropped to 80. Then followed the depression consequent upon the suffering he had undergone, and, as he sank, his pulse increased to 150.

At ten o'clock the *battery was applied to the sinking man.* His pulse was lowered by the application, and varied from 102 to 108. The battery was applied along the spinal column up to the back of the neck, to his breast, stomach, and each side of the neck. When it had been applied for some time, *it produced frothing at the mouth*, and apparently woke him up to a certain degree from the stupor he was in. At the expiration of twenty-five minutes the battery was removed, and his pulse fell to 100, and his respirations became more natural, falling from 26 to 24; the number in health averaging 18 per minute.

At half-past eleven o'clock, Parr's pulse beat 108, and the respirations numbered 27 per minute. At twenty minutes past twelve o'clock the battery was again applied, but with less effect, and at half-past one o'clock it was again tried with the same result. At three o'clock the pulse was 108, and the respiration 26. At that hour the physicians succeeded in introducing milk into the stomach, and from the indications then his prospects of recovery were considered good.

At ten minutes after three o'clock Parr rallied wonderfully, and made a desperate effort to rise. He was perspiring freely; large drops of perspiration were running down his face. He deliberately put his hand to his head and wiped the drops away. He raised himself up, and said: "Oh, my! Oh, my!" and then fell back. The attending physicians then raised him up and held milk to his lips, when he drank nearly a cupful. A small quantity of it gargled up in his throat, and, upon being told to spit it out, he did so. Shortly afterward he was given another cupful of milk, which he also drank.

His head was then laid back again, and he turned over on his left side. At this point the physicians were hopeful, and there was every indication of returning consciousness and recovery. *After a time he was again turned over on his right side*, and his pulse came up with more volume. Half an hour afterward he was given six ounces of beef-tea. He continued in about the same condition until half-past four o'clock, when his pulse ranged from 102 to 108, and his respiration from 26 to 28. After that time he again fell into a stupor, and gradually began to sink. He was then given a raw egg beaten up in milk. About a quarter of five he commenced to gasp, his respiration going up to 42 and his pulse to 120. He continued sinking until ten minutes of six, when he gave a long gasp, after which there was an interval of half a minute, then another gasp, with an interval of a minute, and, finally, a long deep gasp, which was his last. His death occurred at exactly eight minutes of six o'clock. He died very quietly. During his treatment hot bricks were constantly kept at his feet to keep up the temperature.

It will thus be seen that nearly *seventeen hours* elapsed between the ingestion of the poison and death.

We have *italicized* several sentences in our description of the treatment of the case, in order to call attention to the remarkable remedies employed as antidotes for strychnia. The treatment attempted by the attending physicians was, indeed, so unique as to call forth a card from a well-known therapeutist and practitioner, of Philadelphia, which appeared in the *Public Ledger* of June 12th, in which he begged that it should not go upon record as the "Philadelphia treatment of poisoning by strychnia," and went on to show that tannic acid and preparations containing it, such as infusions of coffee, white-oak bark, etc., rendered strychnia inert, and that its physiological antidote is chloral hydrate, administered between the paroxysms; that the convulsions should be controlled by chloroform inhalations, and that the patient should be kept perfectly quiet, as any shock to the surface would bring on a paroxysm. The writer further proceeded to remark that it was, of course, evident that the electric battery, which is so useful in opium poisoning, was entirely out of place in Parr's case—the danger being in keeping the patient awake, and not in allowing him to go to sleep.

It is really amazing to us that intelligent physicians should display such gross ignorance of the laws of therapeutics as was done in this instance, thus laying themselves dangerously open to the charge of malpractice.

At the post-mortem examination, it was found, upon removing the scalp, that there was a depression on the left side of the skull, which was thoroughly healed, but which was plainly visible on the inner wall of the skull, forming an osseous protuberance. It was agreed, however, by all the physicians present that this fracture had not affected the dura mater, and that its existence would not necessarily make the deceased irresponsible for his actions. The brain was removed and carefully examined, and was found to be in a normal and healthy condition, with the exception of a slight congestion, which was probably caused by the convulsions following the ingestion of the poison.

The analytical chemist to whom the contents of the prisoner's stomach had been submitted for examination, reported that it contained small quantities of strychnia.

This case has seemed to us to present two points of much interest, viz., 1st, the novelty of the line of defence adopted by the counsel appointed for the prisoner by the court; and, 2d, the utterly irrational and unprofessional manner in which the poisoned man was treated by physicians of experience and intelligence, several of whom occupied positions of great responsibility in hospitals and dispensaries, and from whom the public would be led to expect an accurate knowledge of the plan of treatment proper to be pursued in such an emergency. M.

THE METRIC SYSTEM AND ITS PRACTICAL APPLICATION.

To the Editor of The Medical Record.

Dear Sir:—Having always been opposed to the adoption of the metric system in writing prescriptions (for the reason that mistakes were sure to occur through druggists being unaccustomed to use it), the writer now wishes to record his first experience in that line.

Not long since I wrote a prescription for morph. sul., 0.06 (nearly equal to gr. j.), to be made into four powders, one to be sprinkled on blistered surface every four hours if required. The druggist (one of the most pretentious on Broadway) put up gr. x., each powder containing gr. iiss. Luckily I saw the medicine before any was used, and discovered the mistake.

Your correspondent has written his last prescription in the metric system, until after the druggists of this city have been before the Examining Board on this point.

M. S. Buttles, M.D.

20 E. 28th Street, June 5, 1879.

SUCCESSFUL VACCINATION.

Does it Prove that Small-Pox Has not been Recently Experienced?

To the Editor of The Medical Record.

Dear Sir:—In your issue of the 14th June, Dr. C. Irving Fisher asks: "Does successful vaccination prove that small-pox has not been recently experienced?" The notes below are gathered to lead him to a more particular investigation of the subject, should he desire it.

A large number of experimenters, who have claimed to produce vaccinia on individuals once attacked with small-pox, have failed in their inoculations on all these subjects; such are Pearson (*Brodley's Phys. and Med. Journal, übersetzt von Kahn*, 1801, p. 506); Hessert (*Hessert und Pilgers Archiv für Kuhpock. Impfung*, chap. i., p. 38); Faust, Sybel, Lavater, Gray, Hellwag, Buchholz, are cited by the latter in his writings on vaccine; Ballhorn and Strohmeyer (*Journal de Hufel.*, vol. x., cah. 3, p. 127); Otto (*Altenburger Annal.*, 1801); Neuhof (ibid., 1801); Sœmmering et Lehr. (*Prüfung der Schutzblattern*, etc., Frankfort, 1801); Golz (*Hessert und Pilgers Archiv*, etc., cah. 2); Gessner (*Hartenhiels med. chir. Zeitung*, 1802, vol. iii., p. 252); Michaëlis (l. c.); Hardege le jeune (*Journ. de Hof.*, vol. xxiii., cah. 2, p. 118); Sacco (o. c.), etc., who have all concluded from their experience that a perfect vaccination is as rare among those who have had small-pox as a second case of small-pox."—"Traité sur la vaccine, ou recherches historiques et critiques, etc.,* p. 780.

Jenner at first cited a certain number of successful vaccinations following variola. Nevertheless, he requested other experimenters to verify his opinion, who admitted the possibility of a good vaccination after perfect variolation. (Ballhorn, Bremen, 1799, pp. 13, 15, 17; and Jenner's Further Observations, p. 42.)

Woodville saw a case in a man who took cow-pox from the animal by contact, but who, when an infant, had had variola. He also produced a good vaccination in a woman who, in her youth, had had variola; but he had never produced vaccine in individuals who had had variola a short time before. His conclusion was, therefore, that for a vaccination to be successful there must exist an interval of many years between the appearance of the variolous eruption and vaccine inoculation (Steinbrenner, pp. 780, 781).

On an examination of Steinbrenner (pages cited *et supra*) many cases will be found bearing upon the points in question, and to this most exhaustive work Dr. Fisher is recommended.

Woodville, in his "Examination of the Report of the Committee of the House of Commons," etc. (London, 1802), quotes a celebrated and experienced surgeon, Mr. Thomas Nash, as follows: "I have not been able yet to determine whether a person who has had the small-pox can receive [cow-pox].

I have many times attempted vaccination in persons who have previously had small-pox and varioloid, after short and long intervals between their attack of small-pox. To prove the point, though, would require an immense number of experiments, and for this we must look to the literature of the subject when vaccination was more highly esteemed and assiduously cultivated than now, viz., from the time "Jenner's Enquiry" was published to the appearance of the great works of Bousquet and Steinbrenner. Those vaccinators who have had large experience, particularly since the introduction of Beaugency virus by Dr. H. A. Marin, may have some unpublished records; but, as the matter now stands, it is safe to reiterate "*that a perfect vaccination is as rare among those who have had small-pox as a second case of small-pox.*"

Yours very truly,

Thomas F. Wood.

Wilmington, N. C., June 18, 1879.

* Paris, Lobé, 1816.

New Instruments.

DRESCHER'S POCKET ELECTRO-MAGNETIC MACHINE.

This new and portable machine resembles in style and appearance the French "Gaiffe" instrument, but embodies such important improvements as permits it to produce, with the same charge, an electric current of greater intensity and longer duration than in any instrument now in use. This apparatus can also be obtained at much less cost than the French battery. It is made of three sizes: with one battery cell, with two battery cells, and what is known as the superior two-celled machine, Fig. 3. It is manufactured by F. G. Otto & Sons, 64 Chatham St., New York.

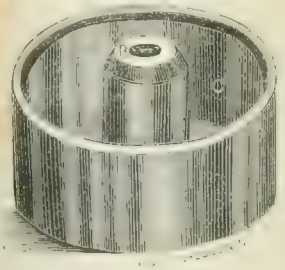


Fig. 1.

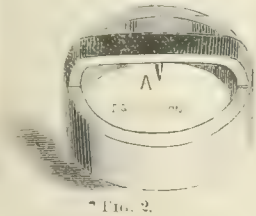


Fig. 2.

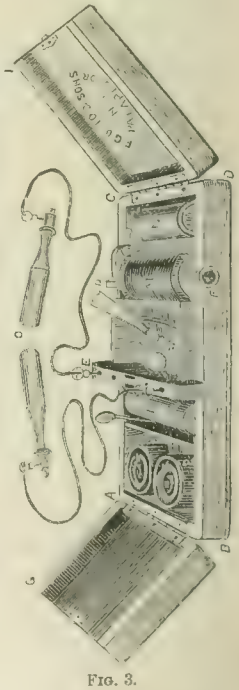


Fig. 3.

The improved pocket machines are all fitted with Drescher's patent annular cells. These are constructed simply of an annular carbon cup (see Fig. 1), which in itself constitutes the negative rheomotive element of the cell, and for its positive element has an annular

zinc plate (see Fig. 2) supported by and revolving upon an insulated central pillar. The concentric construction of the cell exposes in the smallest space the largest possible surface of both zinc and carbon to the action of the contained oxidating fluid. One of the small Drescher cells is therefore more powerful, and will generate a current of far greater intensity than an ordinary cell of two or three times its size.

To charge the galvanic cell, remove the annular zinc plate from the carbon cell; fill the latter half full of water, and add two spoonfuls (a suitable spoon for the purpose accompanies each machine) of bisulphate of mercury. Replace the zinc, revolve it to dissolve the mercury, and the cell is ready for use.

To start the machine, elevate the angular lever P, turning it toward the magnet. The vibration of its armature, producing a buzzing sound, will indicate that the machine is in action. The rapidity of the vibrations is regulated by elevating the lever more or less. Single shocks in slow or rapid succession may be given at will, instead of the ordinary intermittent current produced by the vibrations of the armature, by pressing the lever P down upon the small button beneath it. A shock will be imparted at each break of the contact.

After use the cells should be removed, washed, dried, and replaced before the machine is set aside.

To obtain the primary (mild) current in No. 3 machine, insert the ends of the two electrode cords into the holes PP and N, and connect the other ends with the handles of the electrodes.

To obtain the secondary (strong) current in No. 3 machine, insert the two ends of the electrode cords respectively into the holes marked P and NN.

To obtain the combined primary and secondary currents in No. 3 machine (producing a current of maximum intensity), insert the ends of the electrode cords respectively into the holes marked PP and NN.

To obtain the primary (mild) current in No. 1 and 2 machine, insert the two electrode cords into the holes 1 and 2.

To obtain the secondary (strong) current in No. 1 and 2 machine, insert the two electrode cords into the holes 2 and 3.

To obtain the combined primary and secondary currents (producing a current of maximum intensity), insert the ends of the cords into 1 and 3.

The strength of all the currents is regulated by means of the metallic tube F. By pulling this tube outwards the strength of the current is increased. By pushing it inwards the strength of the current is diminished.

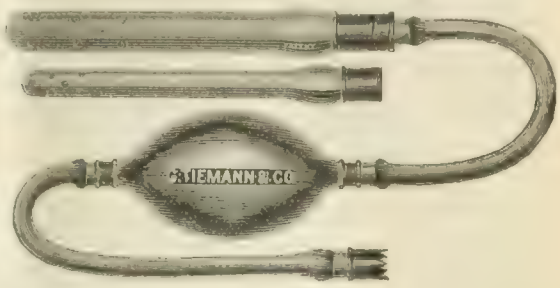
A NEW VAGINAL AND RECTAL SYRINGE.

By W. THORNTON PARKER, M.D.,

LENOX, MASS.

THERE are a great number of vaginal syringes already in use, but among them all we have not found a good one, unless we except Higginson's, of England. Some throw too violent a stream of water, and are of course injurious. Some throw the stream into the uterus, instead of against the walls of the vagina. Some are too small, some are rough, and none are sufficiently flexible.

To meet a want in our own practice, and to remedy defects which detract from the utility of the instruments now commonly in use, we have devised a syringe, manufactured by Messrs. Tiemann & Co., of New York City. This syringe is made entirely of rubber, and the vaginal and rectal tubes are perfectly flexible. There is no terminal orifice, but the sides are perforated with "velvet eyes" for a distance of nearly two inches from the end. These rubber syringe-points do not lacerate the mucous membrane, nor produce the injury so often caused by the hard metallic



tubes. The bulb and tubes are large, and insure a copious supply of water. It has already been examined by several physicians, and all have expressed their satisfaction with its working, and their belief that it will be an invaluable aid in the treatment of vaginal and rectal affections.

Obituary.

WILLIAM TILBURY FOX, M.D.

DR. WILLIAM TILBURY FOX died suddenly in the city of Paris, June 7, 1879, at the age of forty-three years. For the last six years he had been aware that he suffered from serious aortic disease, which was likely at any time to have a sudden and fatal termination. The death of his friend Dr. Murchison greatly shocked him. Wearied with work, he began to feel the necessity for some rest to enable him to complete the summer's work, and went to Paris for a week's relaxation. He had had several attacks of angina. He and his wife dined with an old friend on Friday evening, and he retired in his usual health, intending to return to London on the following day. At two o'clock he was attacked again with angina, from which he succumbed at an early hour Saturday morning.

Dr. Fox was the son of a physician, and was born in 1836 in the south of England. He entered the medical school of University College in 1853, where he displayed a special proficiency in pathology. He was the recipient of honors in anatomy, physiology, and surgery, in the University of London, and obtained the degree of Doctor in Medicine in 1858. At the University College Hospital he was house-surgeon to R. Quain, and house-physician to Jenner, and it was from the last-named teacher that he acquired his early knowledge of skin diseases. His first appointment was that of resident surgeon to the Lying-in Hospital at Lambeth. In 1859 he began general practice, but soon determining to practice as a physician, he selected the specialty of midwifery, wrote papers on phlegmasia dolens and puerperal fever, and was appointed physician-accoucheur to the Farringdon General Dispensary. He soon elected, however, to resume his favorite study of skin diseases, and wrote on "Parasitic Skin Diseases" in 1863, and on skin diseases generally in 1864. In 1864 he made an extensive tour through the East, and suffered severely

from what was thought to be rheumatic fever and dysentery. If his heart, at that time, was affected he was not aware of it, although he returned much enfeebled. In 1867 he wrote pamphlets on the spread of cholera in the East, and the dermatology of Egypt, and began the practice of skin diseases in London. He held the position of physician at Farringdon-Street, and was lecturer on skin diseases at the Charing-Cross Hospital. He was afterwards physician to the Skin Department at University College Hospital, which office he held at the time of his death. In 1869-70 he delivered the Lettsomian Lectures on Eczema, and re-edited, with additions, Willan's Atlas of Skin Diseases in 1875. He was the author of numerous papers on skin diseases, and, with Dr. Farquhar, drew up a report on the "Endemic Skin Diseases of the East." His confrères state of him that he will be remembered as an excellent and successful teacher. He was intensely energetic, loved his work, and was ambitious to place dermatology on a sound scientific basis. As a physician, he was loved by his patients, both in private and in hospital practice. In his death the profession has met with a loss that cannot be readily supplied. As a man he was honorable, upright, and conscientious in the discharge of all his duties, and lived an exemplary Christian life. For many years Dr. Fox was editorially connected with the London *Lancet*, and was at work till the last. He died in the midst of his labor and of his usefulness, and it was his special request that his brother, Dr. Thomas Fox, should pursue the same course of study, and finish his uncompleted work.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 22 to June 28, 1879.

O'Reilly, R. M., Capt. and Asst. Surgeon. His leave of absence, granted him May 28, 1879, from Headquarters, Dept. of the South, extended one month. S. O. 24, Div. of the Atlantic, June 25, 1879.

Fitzgerald, J. A., Capt. and Asst. Surgeon. The sick leave granted him in S. O. 42, Feb. 20, 1879, from A. G. O., extended twelve months on surgeon's certificate of disability. S. O. 147, A. G. O., June 23, 1879.

Adair, G. W., 1st Lieut. and Asst. Surgeon. Granted leave of absence for two months and fifteen days. S. O. 145, A. G. O., June 20, 1879.

Turrill, H. S., 1st Lieut. and Asst. Surgeon. Granted leave of absence for two months. S. O. 148, A. G. O., June 24, 1879.

Powell, J. L., 1st Lieut. and Asst. Surgeon. The order relieving him from duty at Fort Griffin, Texas, and directing him to report at Dept. Headquarters for further orders, is suspended until further orders. S. O. 130, Dept. of Texas, June 21, 1879.

Davis, Wm. B., 1st Lieut. and Asst. Surgeon. Temporarily detached from Fort Totten, to repair to Fort Buford and to hold himself in readiness to proceed to Fort Peck for duty at the Supply Depot to be established at that place. S. O. 64, Dept. of Dakota, June 15, 1879.

Inebriety Caused by Sunstroke.—Dr. T. D. Crothers, superintendent of Walnut Hill Asylum, Hartford, Conn., reports (*Med. and Surg. Reporter*, January 25th) five cases of inebriety caused by a previous sunstroke. He concludes that this form of inebriety "is more or less incurable."

Medical Items and News.

Contagious Diseases — Weekly Statement.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 28, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
June 21, 1879.	0	11	114	2	65	24	12	0
June 28, 1879.	0	4	103	2	40	28	1	0

The Sanitary Condition of Yellow Fever Districts.—We are happy to be able to chronicle that official reports from the Mayors and Presidents of Boards of Health of Memphis and Collierville, Tenn.; Vicksburg, Jackson, Canton, Grenada, and Holly Springs, Miss.; Shreveport, La.; Hickman, Ky.; Helena, Ark.; Decatur and Tuscumbia, Ala., bring the intelligence that in none of the places mentioned has the health outlook ever been more favorable. In no instance has there been any indication of a return of the fever. Better health than is usual at this season of the year prevails, and every preventive that sanitary knowledge can suggest has been made use of to preclude a recurrence of last year's epidemic. Quarantine regulations have been established, and are ready to be enforced should exigency arise.

Phosphoric Emulsion in Phthisis.—℞. Pure cod-liver oil, f ℥ iv.; Glyconine (made by thoroughly triturating equal parts of glycerine and yolk of egg) f ℥ ix.; Jamaica rum, f ℥ ij.; Dilute phosphoric acid, f ℥ ss. to f ℥ ij.; Essent. oil bitter almonds, gtt. xx. Add the latter to the glyconine, then add the cod-liver oil *drop by drop*, stirring vigorously all the time; then add the rum and acid. Dose: average for an adult, one tablespoonful after each meal, being mainly regulated by the amount of phosphoric acid to be given. —(Martin L. James, M.D., in *Trans. Med. Society Va.*; formula taken from *Archiv. Elect. and Neurol.*, May, 1874.)

The Long Island College Hospital.—The twentieth annual commencement exercises of the Long Island College Hospital were held June 25th, and the degree of Doctor in Medicine was conferred on thirty-three graduates, twenty per cent. of the applicants being rejected. The Academy of Music was filled to overflowing. The degrees were conferred by Theo. L. Mason, M.D., President of the Collegiate Department. The address was delivered by Rev. William A. Snively, S.T.D. The valedictory was delivered by E. H. Bartley, M.D., of the graduating class. Music was furnished by Grafulla's Band.

BOOKS RECEIVED.

Lessons in Gynecology. By William Goodell, A.M., M.D. With eighty Illustrations. Philadelphia: D. G. Brinton, 115 South Seventh Street, 1879.

Vade Mecum of Equine Anatomy. by A. Liautard, M.D., V.S., Prof. of Comparative Anatomy to the American Veterinary College, etc., etc. New York: Published at the American Veterinary College, 141 West Fifty-fourth Street, 1879.

Original Lectures.

THERAPEUTICS OF DIARRHŒA IN CHILDREN.

By A. A. SMITH, M.D.,
NEW YORK.

LECTURER ON MATERIA MEDICA, THERAPEUTICS, AND CLINICAL MEDICINE IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

GENTLEMEN: I desire to call your attention to day to diarrhœal troubles, especially those apt to affect children, not alone infants, but those under seven or eight years of age. It would be impossible to go over much of the subject in an hour; I shall therefore make my lecture suggestive, and touch only some of the most important points. Whatever the cause, all children, whether infants or those older, ought to be kept quiet when suffering from diarrhœa. They should be kept in a partially darkened, quiet room, free from noise, and all talk in the room should be avoided, especially when the child is asleep. The nervous system in childhood is so impressible it is easily disturbed, and any disturbance of this character aggravates the diarrhœa. Infants under one year ought to be kept lying down as much as possible. They should not be jolted up and down as is the custom of most nurses and some mothers, in order to amuse them. If the child is under one year, let it be placed on a pillow, if the diarrhœa is severe, as it can be kept quiet more easily in this way than when lying on the lap. Even in changing the napkin care should be taken to move the child as little as possible. Don't be afraid to keep the room well ventilated in which the child lies. Mothers usually are over-careful for fear the child may take cold, and on this account are apt to keep the room too closely shut up. When the child is awake it can be carried carefully into open air, always in the shade. Salt-air is beneficial to almost all forms of diarrhœa in children, and this is specially so in regard to city children. We in the city, therefore, urge a ride on the salt water, or taking the child to the sea-shore if possible. In all cases, in children under a year, if the diarrhœa is severe, keep warm applications over the abdomen; make a spice bag. Take a half ounce each of cloves, allspice, cinnamon, and anise seeds pounded, but not powdered, in a mortar, put these between two layers of coarse flannel, about six inches square, and quilt them in. Soak this for a few minutes in hot spirits (brandy, or whiskey, or alcohol), and water equal parts, and apply it to the abdomen warm, renewing it when it gets cool. In this way we not only get the effects of a poultice, but we also get the sedative and antiseptic effects of the spices. Great heat, with influences that depress the nervous system, bad hygienic surroundings, improper diet, too early weaning, bottle food, and dentition, are among the causes that predispose to diarrhœa. In all cases remove the cause if possible.

METHOD OF REDUCING TEMPERATURE.

There is one symptom common to almost all cases of diarrhœa if severe, and in my opinion it is the most important, and that is the increase of temperature. The best means of reducing the temperature is by the external applications of cold. Since we have the Kibbe's cot, which you have seen here, the immersion of the child in a bath is practically done away with. The Kibbe's cot can be improvised easily; it is a pleasant and convenient way of giving the wet pack; is just as effectual as the bath, and has very few of its objections. Fold a small sheet so that it will cover the child from the axillæ to the ankles, place the child on the bed, leaving the arms and feet uncovered. The axilla can be dried easily, and the temperature be taken while the child is in the pack, or the thermometer may be introduced into the rectum, the most accurate way of taking the temperature. Water of the desired temperature may be poured on from a pitcher. In cases of slight elevation of temperature, say to 102° F., or under, sponging off the body with water about the temperature of 80° F. will usually answer the purpose, and it may be done often enough to reduce the temperature nearly to normal. But in all cases of an elevation of temperature above 102° F. resort to the Kibbe's cot or its substitute. Always remain and make the first application yourself. The parents will be timid about it. The child will cry, and it will be necessary for you to show them by the good effects produced, the wonderful power by this means of reducing temperature, of calming the restlessness and irritability of the child, and of inducing sleep. Afterward you can teach them the use of the thermometer and the methods of application of the water. The temperature of the water may be at first 90° F., then gradually, as the child becomes accustomed to it, it may be made cooler until it is brought down to 80° F. in a few minutes. It may be necessary where the temperature is very high, or where it rapidly rises after it has been reduced, to apply the water even colder than 80°. Reduce the temperature to 99°. It usually goes down still farther after the child is taken out. Remove the sheet, put the child in a thin blanket, cover it up and let it sleep. It may be left in the pack twenty or thirty minutes, longer or shorter according as you find the temperature down to 99°. In very severe cases, where the temperature rises to 105° F., or higher, it may be necessary to apply the cold every hour or two. In such cases you need not remove the child from the Kibbe's cot, but let it remain there for even days if necessary. The cot may be made comfortable by folding a woollen blanket and putting it under the child. I cannot speak too emphatically of the importance of the reduction of temperature in the treatment of the diarrhœas of children, and of this means of accomplishing it. It is, however, only an aid to other means of treatment.

NURSING AS A CAUSE OF DIARRHŒA.

One of the most frequent causes of diarrhœa in young infants is too frequent nursing. The child, when a few days old, can be taught to nurse about every two hours during the day, and every three hours at night. My first question, when I am called to see an infant under six months suffering from diarrhœa, is, "How often does the child nurse?" and frequently find it has no regularity of nursing, sometimes nursing as often as every half-hour. By establishing regularity of nursing, the diarrhœa is often cured. A child under four months, as the rule, will have two, sometimes three evacuations in twenty-four hours. This number is within the range of health. You will see many cases of diarrhœa with very little constitutional disturbance, but frequency of movements and the appearance of the movements not particularly unhealthy. Bismuth. subnitrat., three grains every two or three hours, will cure such cases.

PRETERNATURAL ACIDITY.

Some infants have a tendency to preternatural acidity in the digestive organs. The diarrhœa that occurs in such cases is accompanied with considerable pain. The passage of small, cheesy-looking masses

with the stools, the odor sour, and sometimes even offensive, the reaction decidedly acid. Such children may be given, with good effect, a teaspoonful of lime-water three times a day. Give it in two teaspoonfuls of milk. Chalk may be given. The mist. cretæ of the Pharmacopœia is a good preparation to give. It contains, besides the chalk, gum arabic, glycerine, and cinnamon, all of them good in this form of diarrhœa. Sometimes it is well to give a laxative, as some of these cheesy masses may have collected in the intestines and may be acting as an irritant. The indication is to remove them. I have found the following prescription a better one to give than the traditional castor-oil:

℞. Pulv. rhei rad..... gr. xv.
Sodæ bicarb..... gr. xxv.
Aq. menth. pip..... ℥ ij.

M. Sig. ʒ j. as laxative to a child from one to four months old.

In this prescription we get the laxative effects of rhubarb with its so-called secondary astringent effects, the alkali, and the sedative, and antiseptic effects of the peppermint.

In any case of diarrhœa, where there is reason to believe there is any irritant in the intestines, the treatment may be commenced by giving a laxative to remove it.

DENTITION AS A CAUSE OF DIARRHŒA.

Between the sixth and twenty-eighth month dentition plays a very important part in the production of diarrhœa. It might be called a nervous diarrhœa, for it is probably due to reflex nervous disturbances. If dentition is not directly responsible for many of these diarrhœas, it is indirectly so by putting the system in a condition to be more susceptible to all those influences which do produce diarrhœa. In all cases where the gums are swollen, lance them. In any case where it is about time for the tooth to come through lance the gums over the tooth thoroughly and draw some blood. I believe the disturbance is often due to pressure of the tooth deeply in, and before it shows much swelling on the surface. Lancing the gums never does harm. It is better to err on the side of lancing them when there may be no necessity, than to fail to lance when there might be necessity. I have often seen a child having from ten to twelve movements a day relieved entirely by lancing the gums, and with no other treatment. It is in these cases that the bromides prove so effectual. Give the following combination of a bromide with mucilage to a child between six months and a year; older children a larger dose:

℞. Sodii bromid..... ʒ ss.
Mucilag. acaciæ,
Aquæ puræ, ää q. s. ad..... ℥ ij.

M. Sig. ʒ j. q. 3 h.

The bromide diminishes the reflex disturbance, and the mucilage is soothing to the irritated intestinal mucous membrane.

ERRORS IN DIET AS A CAUSE OF DIARRHŒA.

Another cause of diarrhœal troubles is the giving of all sorts of diet too early. There is a desire to make the child strong and grow more rapidly. Meat, vegetables, and farinaceous articles in abundance are given to children even eight or ten months old. A child under eight months ought to have no other diet than milk, and even up to two years milk should be its main diet. Human milk is the best during the first year, or until weaning; but often from necessity the child is brought up on the bottle. During the first eight months cow's milk diluted one-fourth with barley-water makes the best diet. The ground or crushed barley should be boiled with water of sufficient quantity, so that when cold it is about as thick as thin cream. The milk should be given about blood-warm and a little sweetened. What place should condensed milk be given in the feeding of children? I should give it a place on the shelf at the grocers. I have tried the condensed milk with children thoroughly, and have seen it tried in the practice of others, and must protest against its use. Children fed on condensed milk, although they may thrive well apparently, yet when they fall ill show very little resisting power, and, particularly when they fall ill of diarrhœa, they weaken very rapidly and the diarrhœa is apt to be obstinate. There are exceptional cases in which it may be used, and some cases in which it is desirable to use it for a short time. When bottle-fed children suffer from diarrhœa it is well to boil the milk and make the barley-water thinner and give more of it, say one-third barley-water to two-thirds boiled milk. I have found thoroughly cooked wheat-flour an admirable food for children with diarrhœa. Have it prepared in this way: Put about two pounds of flour in a muslin bag, tie a string around the top of it, and suspend it in a kettle of water and boil it for five hours; then let it get cold. Take off the bag, cut off the outside dough and grate it. Thicken boiled milk with this to about the consistency of a thin gruel, or about thick enough for it to pass through the rubber nipple of a nursing-bottle. All food for children should be thoroughly cooked. Still more is this to be observed when they are ill of diarrhœa. As a rule, feed children suffering with acute diarrhœa just as little food as will satisfy their hunger, and often a little cold water will relieve their thirst and lessen the desire for food. Avoid alcoholic stimulants, unless there is exhaustion. Champagne iced may be given in small quantities, if there is obstinate vomiting.

FLATULENT DIARRHŒA.

There is a flatulent diarrhœa which occurs in young children and gives much trouble. The movements are frequent but very small, and the flatulence is sufficient to keep the child awake nights.

I have found the following prescription an excellent one in such cases:

℞. Magnes. calcin..... ʒ i.
Spts. amm. aromat..... ♏ xl.
Tinct. assafœt..... ʒ i.
Anisette..... ʒ vi.
Aq. cinnamomi q. s. ad..... ℥ iv.

M. Sig. ʒ i. every half-hour until relieved, to a child from three weeks to four months old. Two or three doses will usually relieve.

DIARRHŒA DEPENDENT ON NON-DIGESTION OF SUGAR.

There is a diarrhœa which occurs in the summer, characterized by frequency of discharges; the movements are green, accompanied with pain, and in many cases the stomach is so irritable that vomiting is a troublesome symptom. Probably the diarrhœa is due to non-digestion of sugar. In connection with such cases I would like to call your attention to kumyss or fermented milk. In this preparation the milk has already taken the first step in digestion. There is or ought to be no sugar in it; the casein is in a fixed condition, and consequently cannot undergo the changes of coagulation and putrefaction, and there is a small quantity of alcohol, but it is in such a com-

bination that it is easily assimilated. The kumyss is charged with carbonic acid gas, but children do not take it readily with the gas in. It may be gotten rid of by taking the kumyss out of the bottle and pouring it from one pitcher to another a few times. A small quantity may be kept out for immediate use, and the remainder put back into the bottle, the bottle corked and put in a cool place. Sometimes children who are unable to retain anything else can take a teaspoonful of kumyss at a time and digest it, and frequently without any medicinal treatment will recover under its use. Twelve hours is as long as it can be kept safely, after once uncorking it. The child need take no other food while it is taking the kumyss. It is itself food and drink. It is sour, and mothers are tempted to sweeten it to make it palatable. Of course it should never be sweetened, and should never be given within two hours after any other form of milk, and should be given cold. After the first repugnance to it children take it quite readily; even children as young as six or eight months can be made to take it by taking advantage of their thirst and giving it at first in small quantities. Kumyss may be used in many forms of diarrhœa because of its easy digestion. That made by Dr. E. F. Brush, of this city, is the only preparation of it I have found reliable.

DYSENTERIC DIARRHŒA.

There is another form of diarrhœa quite common in summer, characterized by what are known as dysenteric discharges, that is, quite frequent evacuations and straining, as in dysentery, and the evacuations are about the consistence of pudding, or thin jelly, and are usually of a pinkish color. This pinkish color is due to the admixture of blood and mucus with the substance that passes the bowels. I have found small doses of castor oil and opium, given in mucilage, an excellent combination in such cases, as in the following prescription:

℞. Ol ricini..... ʒ i.
Sacch. lactis..... ʒ ss.
Tinct. opii camph... ♏ xxxij. to ʒ iss.
Mucilag. acaciæ,
Aquæ puræ, āā q. s. ad..... ℥ i.
M. Sig. ʒ i. q. 2 or 3 hours.

Add the paregoric according to the age of the child. For a child under a year, four to eight drops. For child of one to two years, ten drops. Don't forget the general suggestions in regard to diet in all cases of diarrhœa. It is well sometimes in these cases to give starch-water enemata. If the enemata are given the paregoric may be left out of the castor oil mixture, and laudanum may be put in the enema. One or two drops of laudanum with one to three tablespoonfuls of starch-water, may be given according to the age of the child. The starch-water should be made about as thick as thin cream, and given tepid. It may be repeated every three to six hours, according to the severity of the attack.

INFLAMMATORY DISORDERS.

There is a large class of summer diarrhœas included under the term of inflammatory disorders. They are accompanied with great pain; frequency of movements; there may or may not be a small quantity of blood passed with the movements, more or less increase of temperature, with disturbances of the nervous system, and there may or may not be gastric irritability. The indications are to reduce the temperature, manage the diet according to the directions I have given you, surround the child by the best possible hygiene, put the warm applications over the abdomen, and give internally a combination of opium and camphor. Tully's powder, which consists of morphine, camphor, and prepared chalk, makes a good combination. The dose for an adult is the same as Dover's powder. Ten grains contain one-sixth of a grain of morphine and a little over three grains of camphor. A child three to six months old may be given an eighth of a grain every two to six hours, according to the severity of the attack and the control the powder has over it. A child six to eighteen months may be given one-sixth to one-fourth of a grain in the same way. After the acute symptoms have been controlled there remains in many cases a tendency to looseness of the bowels, with very little constitutional disturbance. Stop the Tully's and give the following:

℞. Ac. sulph. dil..... ♏ xxiv.
Salicin..... gr. xxiv.
Glycerinæ..... ʒ iij.
M. Sig. ʒ i., t. i. d.

Do not give it within a half-hour of the taking of milk. The sulphuric acid has a tonic and astringent effect, and the salicin, besides its tonic effect, acts also as an anti fermentative.

CHOLERA INFANTUM.

And now, as to the treatment of a disorder of children, which is the dread of all physicians, especially young ones, and justly so, for it is a formidable disease. I look upon cholera infantum as a disorder of the nervous system, and the disturbances of the alimentary canal as only the local manifestations of a constitutional disorder. It occurs from great heat, but it has always seemed to me that in addition to great heat there was some other element. I have noticed that cases are much more frequent when, besides great heat, there were certain atmospheric influences which depress the nervous system greatly. "Dog days," as they are called, are very fruitful in the production of cholera infantum. Among the poor, great heat, poorly ventilated rooms, poor hygiene in all its forms and with all its attendants, improper food, particularly bottle food, favor the development of the disease. I recognize two varieties of cholera infantum, and divide them, according to their manifestations, into congestive and exhaustive. In the congestive form there is redness of the surface of the body, especially about the face and head; redness of the conjunctivæ, great elevation of temperature, the pulse rapid and full, the nervous symptoms marked, twitching of the muscles, and frequently convulsions; the vomiting and purging violent, the matters vomited and passed being very thin and of enormous quantity. All of these symptoms come on very rapidly, differing in this respect from other forms of diarrhœa. The two special indications are to reduce the temperature and control the nervous manifestations. Apply cold according to the directions I have given you. Give hypodermic injections of quinine and morphine. Give to a child of six months one grain of quinine and about $\frac{1}{200}$ of a grain of morphine every four or six hours, according to the indication. For each additional six months of age an additional half grain of quinine and an additional $\frac{1}{200}$ of a grain of morphine. To simplify the matter I will give the prescriptions of the solutions of quinine and morphine:

℞. Morph. sulph..... gr. ss.
Aquæ destillat..... ℥ i.
M. Sig. ♏v. by hypodermic injection for a child six months old.

℞. Quiniæ sulph..... .... ℥ i.
Ac. sulph. dil.....q. s.
Acid carbol. cryst. ..... gr. v.
Aquæ destillat..... ℥ i.
M. Sig. ℥ viij. by hypodermic injection for a child six months old.

Usually the stomach is so irritable that medicines and food are both vomited. After the temperature is reduced, and the nervous system is rested, small quantities of food can be given. Small pieces of ice may be given to allay thirst.

In the other variety, the exhaustive form of the disease, there is paleness of the surface of the body; little or no elevation of temperature; indeed, the temperature in some cases is below normal; the pulse is rapid and feeble; the nervous symptoms, although present, are not as marked as in the other variety. The vomiting and purging are violent, the child sometimes getting rid of more fluid in a few hours than it has taken in days. The emaciation is very rapid and great. The indications for treatment are to check this enormous loss of fluid and sustain the patient. Our main reliance must be on opium and alkalies and stimulants, with the general directions I have given you in the beginning of the lecture. Opium in small doses, in addition to the other effects claimed for it, is a cardiac stimulant, thus meeting one of the chief indications in this disease.

The following combination is good:

℞. Tinc. opii. camph..... ℥ iij.
Mist. cretæ..... ℥ iij.
M. Sig. ℥ i. q. 2 or 3 h. to a child of six months.

Sometimes nothing is retained by the stomach. In such cases, it is necessary for you to give the opium hypodermically. Give the $_{2}\frac{1}{5}{}_{0}$ grain morphine as directed in the other variety of the disease, but do not give the quinine.

Alcoholic stimulants should be given. Brandy is the best. Give five drops of brandy in a teaspoonful of water, every hour, to a child of six months, if there is great exhaustion. This quantity may be increased or diminished according to the indications. In some cases of cholera infantum a child becomes suddenly much more exhausted, pulse becomes more rapid, extremities are cold, perspiration comes out freely, and the child seems to be going into collapse. An enema of hot water will sometimes revive such a child wonderfully. Let a good quantity of hot water be used, say half a pint, and hold a towel to the anus afterward, in order to have the water retained as long as possible. Along with this give internally spirits of camphor, from six to ten drops. It may be put in with the brandy, and the two given together for a few hours. In any case of diarrhœa, where these symptoms of great exhaustion occur with the coldness of the extremities, the hot water enemata may be given.

BEEF-TEA.

The very common habit of giving beef-tea in the diarrhœa of children prompts me to say a word in regard to its use. Of course, it is given with a view to sustain the strength of the child, but I have found that almost invariably it acts as an irritant and aggravates the disease. Sometimes it seems to pass the bowels in the same form in which it was taken. In any case of acute diarrhœa I would advise you not to give beef-tea.

OPIUM.

I believe that opium is given too indiscriminately in the diarrhœas of children. It has its uses, and is an orthodox remedy in such disorders, but it is given very frequently when other remedies would do quite as well and much better, and would produce none of the ill effects of opium.

Good nursing; removal of causes; keeping the patient quiet; regulation of the diet; improving the hygiene; reducing the temperature; removing the causes of disturbance of the nervous system, will, in the great majority of the cases of diarrhœa in children, do away with the necessity for medicines.

Original Communications.

EXTIRPATION OF THE BONES OF THE NOSE AND MOUTH BY THE USE OF THE SURGICAL ENGINE.

By D. H. GOODWILLIE, M.D., D.D.S.

(Read before the Medical Society of the County of New York, April 28, 1879.)

The deep-seated bones of the nasal fossæ become necrosed from numerous causes. The diagnosis is in many cases quite difficult, as in all cases there is stenosis of the nostrils from thickening of the soft tissue. But, by the aid of the rhinoscope under a very strong light, and by properly constructed nasal speculum and probe, together with the general physical condition and history in each case, it can be made out.

If necrosis is present to any great amount, it will generally be observed that the necrosed material will have made excoriated tracks on the pharynx on either side of the vertebral ridge.

Sometimes one, and again both sides, may be so seen. On the side on which the greater amount of disorganized tissue flows will be found the openings to the necrosed bone. If the vomer is the only bone necrosed, fistulous openings may be discovered—often near the junction of that bone with the palate posteriorly.

In many cases, owing to extensive swelling of the parts, rhinoscopy is impossible.

Necrosed bone cannot always be felt with a probe from the anterior nares, as the fistulous openings are in the posterior nares, and open toward the pharynx.

But, should there be necrosis of the soft parts, or if the bone necrosis extends to the maxillary bones, then it may be discovered by the probe.

The causes, in the writer's experience, have been in about the following order:

1. From a morbid virus in the system, in which syphilis stands most prominent, struma, diphtheria, etc.

2. From mechanical and traumatic causes; polypi, causing by their growth pressure and consequent necrosis; foreign substances, deviated nasal septum, blows upon the nose, etc.

In the nasal lesions in tertiary syphilis, the necrosis nearly always commences in the vomer, then extends to the other bones of the nasal fossæ. The first symptoms are an intense pain in the frontal sinuses, extending down the bridge of the nose, and, when the disease has extended to the hard palate, pain in the mouth, in the centre line of the palate.

Treatment.—When necrosis has been recognized, no time should be lost in removing it. The dissolution and discharge of a necrosed bone may cause the loss of the surrounding hard and soft parts. It will be

necessary to give constitutional treatment suitable to each case. In December, 1872, the writer devised and made use of single and multiple revolving knives, saws, and trocars for operations upon the hard and soft tissues of the mouth and nose, the revolving power being supplied by the *surgical engine*. This consists of a fly-wheel, set in motion by the foot, a driving-pulley, and a communicating cord. On the top of the upright movable shaft the pulley is connected to a flexible wire cable inclosed in a flexible sheath. This cable is connected to the hand-piece, in which can be put any revolving instruments. The flexibility of the wire cable allows the instrument in the hand-piece to be freely used at any angle. The hand-piece, held in hand as you hold a pen, is under perfect control. The instruments are securely fastened in the hand-piece by means of a spring-catch.

The *single revolving knife* (Fig. 1) is circular and

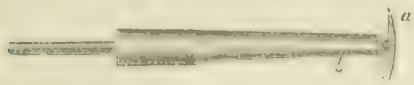


Fig. 1.

sharpened on the edge (*a*), and has a protecting sheath (*b*) to cover up the part of the knife left exposed.

Under a velocity of two or three thousand revolutions per minute, the single revolving knife, in cutting soft sensitive parts, gives little or no pain.

The *multiple revolving knives* (Fig. 2) are arranged around the end of a shaft in an acute angle, and *cut*

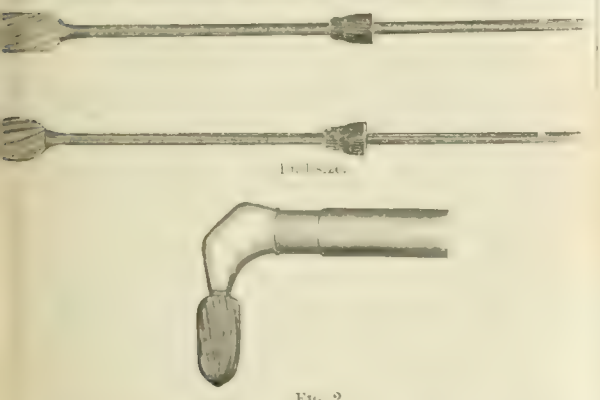


Fig. 2.

as they revolve, and do not *scrape* as the dental burrs. These instruments have a protecting sheath (Fig. 3), to be used when necessary.

Fig. 3.—Knife (*a*) within the sheath.

Saws, like the single knives, are circular, and have teeth on the edge.

The *trocars* are of different forms and sizes, and

Fig. 4.

they are intended to make an opening and then to enlarge it. Fig. 4 shows two of the most efficient ones: the spiral cutting edge, and the other flat, with two straight cutting edges and double edges on the point.

Self-retaining nasal speculum (Fig. 5) represented in The Medical Record, July 31, 1875. The writer has

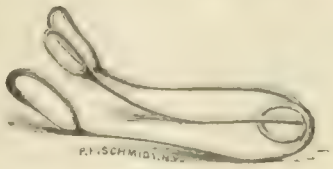


Fig. 5.

several modifications of it to more effectually show the posterior nares.

Oral speculum described in the Transactions of State Medical Society, 1877, and consists of hard rubber or metal splint (*b*, *b*), covering upper and lower teeth, attached at their posterior ends by an adjustable hinge

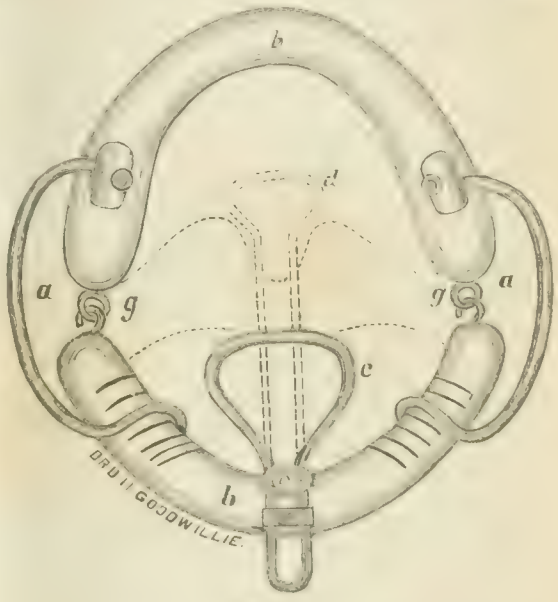


Fig. 6.

(*g*, *g*). The splints are separated and the mouth kept open by a brace (*a*, *a*) on either side. The palate spatula (*d*) is attached to lower splint, the other end holding the palate against the pharynx. The *head-rest* fits the back of the head and neck, with side-pads, over these, and over the brow of the patient passes a leather strap, firmly confining the head. (See *N. Y. Med. Jour.* for July, 1872, page 22. Resections of maxillary bones without external incision.)

Operation.—The patient is placed in an operating-chair, nitrous oxide is given to produce anæsthesia, and then ether is used, and the head securely fixed in the head-rest. If the operation is in the nose, now close off entirely the nasal pharyngeal opening by pushing the uvula and soft palate back against the pharynx by means of the palate spatula, which is attached to the oral speculum. This will prevent the necrosed portions of bone thrown from the revolving knives from entering the larynx. Where the operation is

done without an anæsthetic, this preventive measure is not necessary. In the operation for the removal of the vomer, the knives are used to remove the anterior part of the necrosed bone (Fig. 7, shown by dotted

Fig. 7.

line), and then the posterior part grasped with the forceps through the anterior nares.

This is pulled out from between the soft walls covering this part of the bone. When moved from its bed, it is either brought out through the anterior nares, or, if too large to pass there, it may be passed through the posterior nares. By the careful removal with the forceps of this posterior half of the vomer, the soft parts remain, and thus the union between the septum and palate is not destroyed. Have noticed in some cases a partial reproduction of that bone. In the case of the turbinated bones, they are entirely removed by means of the knives. The hard palate and maxillary bones can all be removed without disturbing in the least the soft parts. From a sinus big enough to admit the instrument can be successfully removed any amount of necrosed bone.

Before the patient recovers from the anæsthetic, and before the oral speculum is removed, the nasal cavity is syringed out with cold water, and cleared of all necrosed bone and blood. When sufficiently recovered from the anæsthetic, remove the speculum and unstrap the head. If the necrosed portions are too large to pass out of the anterior nares, let the speculum remain until the patient has regained consciousness, and then remove through the naso-pharyngeal passage or through any breach that may be made into the nasal cavity from the mouth.

The writer never makes use of sponges on cut surfaces in either mouth or nose, but makes use of antiseptic paper; or, if there is any hemorrhage from small vessels, it may be arrested by applying styptic paper. Have never yet had any secondary hemorrhage.

The writer has made use of the surgical engine for the successful removal of adhesions of the soft palate against the pharynx, nearly closing up the naso-pharyngeal passage. It has been successfully used in trephining the antrum, mastoid cells, exposing the superior and inferior dental nerves, opening abscesses, resections of the jaws, removal of epulic growths. Indeed, in many other surgical operations on any part of the body, it can be most efficiently used.

Case I.—Mrs. C. T., aged thirty-five years; born in New York; married November 25, 1868. Up to this time quite healthy. Four months after marriage had syphilis, for which she received treatment by her family physician. Up to present time has had four births. Her first child still-born at six months; second child born at full term and lived a week; third child still-born at eighth month; fourth child born at full term and lived ten months.

In 1872, had syphilitic laryngitis and was salivated. She came under my care in November, 1874. On examination I found necrosis of the vomer, lower portion of the ethmoid, vault of the hard palate, and inferior turbinated bones of both sides, and alveolus of the intermaxillary bone. There was a hole in the hard palate a half-inch in length. Front teeth quite loose from necrosis of the maxillary bone. These were at once removed. Rhinoscopic examination very difficult to make, as the uvula and soft palate were much swollen. Large ulcers on the pharynx. To combat the specific poison the patient was put upon iodide of potassium, two grammes, and increased to four grammes a day, with tonics and nourishing food.

April 29, 1875, operated for the extirpation of the necrosed bones. There were present, Drs. A. C. Post, J. T. Darby, Leonard Weber, L. B. Bangs. All the necrosed bones were removed by the revolving multiple knives through the opening in the palate and through the nostrils. The necrosed palatal vault, both inferior turbinated bones, and a small portion of the vomer, were removed through the opening in the palate; through the nostrils, all the necrosed portion of the maxillary bone and the anterior portion of the vomer and ethmoid.

The posterior portion of the vomer was now seized with the forceps and removed. By this means the soft parts covering the vomer were left intact, so that by a rhinoscopic examination the posterior part of the septum was seen as before the operation. In this case there appeared to be a reproduction of bone in this part of the vomer, and to some extent of the hard palate.

A few days after, removed by the knives some small necrosed portions of the intermaxillary, after which the parts healed rapidly. The voice somewhat nasal in tone until the opening in the palate was closed.

In October, 1875, about six months after the extirpation of the necrosed bones, uranoplasty was performed for the closure of the opening in the hard palate, which was now three-fourths of an inch in length. After removing the mucous membrane from edges, an incision is made on each side of the fissure through the soft parts and newly formed bone of the hard palate.

The soft parts were cut through by means of a galvano-cautery knife, and so had no bleeding. The bone is now pierced by the drill, and the bone separated by a chisel after the method of Sir William Ferguson; or it may be sawed through, and then they are sprung together and the fissure thus closed. In this case four horse-hair sutures were used to hold the flaps together.

These side-incisions must be kept open by packing them, or removing the granulations each day, to prevent healing until the edges of the fissure are united. A gutta-percha splint is now fitted and worn over the palate. This prevents the food, fluids, and air from causing disturbance to the healing process.

I present wax models of this case taken from casts of it before, during, and after completion of the operation.

It will be seen that the external appearance of the nose has not altered in shape, notwithstanding the nasal septum and bony palate, upon which it rests, are gone. Have never seen the nose fall in except when the cartilage or nasal or maxillary bones were involved—in other words, the bridge of the nose.

Case II.—Mrs. F. C., aged twenty-one years, born in New York State, was sent to me by Dr. J. Marion Sims. She was married in 1865; then quite healthy; has had three still-born children, and one now living.

In January, 1872, had inflammation of the brain, which was afterward followed by inflammation of the bowels. In 1873 had severe neuralgic pains on the

bridge of the nose, centre of the hard palate, and left side of the face. This was followed by a swelling in the centre of the hard palate, and all the upper teeth were extracted. In December, 1875, when she came under my care, her condition was as follows: Her physical powers were very much reduced; constant pains in her head; a hole in the left canine fossa; great discharge from the nose and mouth. By rhinoscopic examination, and by a probe through the hole in the canine fossa, I discovered necrosis of the nasal septum and turbinated bones of both sides.

The specific origin of disease being recognized, she was put upon iodide of potassium, tonics, cod-liver oil with phosphates. December 26th, as there was a good deal of pain and swelling of the nasal septum, it was lanced, and bled freely and gave her great relief. January 4, 1876, lanced the nasal septum again. February 3d, periostitis of the left nasal bone externally appeared; applied a leech. February 4th, swelling and pain gone. February 9th, patient having improved in strength, but still suffering intense pain, removed all the necrosed bone by the revolving knives. In this operation removed the vomer, lower portion of the ethmoid, inferior and middle turbinated, maxillary walls of both right and left antrum, and a good portion of the hard palate. Present, Drs. George A. Peters, E. L. Keyes, F. R. Sturgis, and G. H. Fox. February 10th, found the patient going about the house attending to some of her household duties; no pain since the operation. February 13th, removed small pieces of the intermaxillary bone. March 6th, had some swelling of the left side of the nose, extending under the eye.

Feeling herself so much better after the operation, she had neglected to take the potassium as ordered, and this is the penalty of such disobedience. Ordered a leech and increased the dose of the iodide of potassium to four grammes per day. March 8th, swelling very much reduced and pain nearly gone. March 10th, pain and swelling gone. There was a small amount of pus on the left side of the nose, which was drawn away with the aspirator. April 10th, patient expresses herself as being nearly well. Iodide of potassium reduced to two grammes every other day. Cod-liver oil to be continued. June 23, '76, patient now quite well, and by a rhinoscopic examination no discharge was discovered. There now only remains the opening of the canine fossa to be closed.

Case III.—*Necrosis of turbinated bones from scrofula.* Miss E. J. A., aged twenty-years, has had discharges for some time. Smelling much impaired. On examination discovered that both middle turbinated bones were necrosed. Considerable bulging of the nasal septum to the left side, which, her mother says, came from a fall in childhood. Removed the necrosed turbinated bones with the revolving knives, while she was under anæsthesia produced by nitrous oxide. After a month's treatment the parts healed, respiration free through the nostrils, and she was discharged.

Case IV.—The following case was brought to me by Dr. Leonard Weber, of this city: William H., of New York, aged thirty-two years, with syphylitic necrosis of the bones of the nasal fossæ. His condition was found as follows: Small hole through the hard palate one half inch in length; four fistulous openings—above the alveolus, at the left central incisor, on each side of the left canine, and above the first molar of the same side. Some teeth were extracted on this side; the sound and firm teeth were allowed to remain.

In the presence of Drs. L. Weber, C. C. Lee, R. P. Lincoln, T. R. Pooley, H. G. Fox, I. Spencer [illegible], E. C. Lining, U.S.A., there were removed through the opening in the palate, and through the nostrils, the hard palate, vomer, inferior turbinated bones, cancellated portion of the left maxillary and intermaxillary bones.

The posterior portion of the vomer was dislodged and removed by the forceps, without separating its covering from the palate. In these extirpations there has never been any great amount of bleeding, and have never yet had to resort to the tampon. The styptic action of the paper controls all bleeding from the small vessels. There was much thickening of the soft parts, just inside of the vestibule of the nostrils; and as it interferes with free respiration, it was removed by means of the galvano-cautery. A protecting shield is put into the nostril, the top part of which incloses the part to be cauterized. The white-hot cautery wire is applied through the shield to the part exposed at the top of it.

Case V.—H. W. B., from Otsego county, New York, had catarrhal difficulty when a child. Has had polypi removed from right nostril by family physician. In July, 1876, the writer removed a large polypus from right nostril, attached by a large pedicle to upper part of vomer. From pressure the left middle turbinated bone had been lost, and from the same cause the vomer was pushed to the left. The right inferior turbinated was forced down into the inferior meatus. There were three bends in septum. The greatest bend was in the posterior and upper part of the septum; the lesser bend in the cartilaginous septum. The whole septum had also a very sharp bend, with hypertrophy of the bone along the line of, and bending into, the inferior meatus. This, with a pushing downward by the growth of the inferior right turbinated, produced complete stenosis of that nostril. This warping of the septum into the inferior meatus probably commenced with his trouble in childhood. This condition of things prevented the free discharge of mucus from the nostrils. In September, '76, removed with the nasal punch a portion of the bend in the cartilaginous septum. When I saw him again in May, '77, the upper part of the vomer had necrosed and passed away, the lower thick hypertrophied part was removed under an anæsthetic. The multiple knife, armed with a shield, passed through the inferior meatus, cutting its way through to the pharynx. The inferior turbinated bone was also removed. This gave a clear passage for the escape of the mucus and free respiration.

The most common local application used in these cases is a powder consisting of iodoform and camphor, each four grammes, subnitrate of bismuth, thirty-two grammes, blown into the nostrils with several pounds' pressure, so as to reach every part of the nasal cavity. To do this efficiently the powder must be impalpable, the calibre of the blower small, and applied with considerable force of air, the parts to be thoroughly cleansed with salt and tepid water by means of a syringe, and then the powder applied through the anterior nares.

Calomel in Eczematous Affections.—D. H. E. Dykeman highly recommends the following in indolent secondary syphilis, particularly when cartilaginous regions are attacked in eczematous affections, and in pruritis vulvæ:

℞ Hydrarg. chlorid. mit..... grs. xxx.

Ad [illegible]

M

INFLAMMATION OF THE FRONTAL SINUS, ABSCESS, AND FISTULA.

By CHARLES STEDMAN BULL, A. M., M.D.,

SURGEON TO THE NEW YORK EYE INFIRMARY.

Owing to the somewhat intimate connection between the cavity of the nose and the frontal sinus, which exists through the prolongation of the nasal mucous membrane through the infundibulum to the sinus on either side, catarrhal inflammation of these sinuses is a very common accompaniment of naso-pharyngeal catarrh. Though it may occasion a great deal of discomfort, and even actual pain, yet the inflammatory process usually passes off, as does the nasal catarrh, without producing serious disorganization, though leaving behind a tendency to its recurrence, which increases with every relapse. Serious inflammation, resulting in the formation of pus, would here, however, very naturally cause a distention of the sinus, and, owing to the extreme narrowness of the passages between frontal sinus and nasal cavity, an abscess would form, caries of the bone would occur, and a perforation through the skin would lead to the formation of a fistula of the most obstinate and annoying kind.

The inflammation of the mucous membrane lining the sinus may be acute or chronic, and in rare cases leads to the formation of pus. The symptoms are often very obscure, and the differential diagnosis very difficult, owing to the fact that the symptoms may so closely simulate those of orbital disease. The abscess may open through the skin before a diagnosis is made. If the external swelling extends lower down in the lid, so as to reach the internal ligament in front of the lachrymal sac, it may be mistaken for distention of the sac, though usually the latter is a softer swelling.

There is sometimes considerable deformity from displacement of the eyeball downward and outward. The external opening usually occurs in the upper lid, near the superior border of the tarsus; and if the abscess continues discharging, the lid becomes adherent to the orbital margin at the point of the opening in the sinus, and the mouth of the fistula is retracted. If proper treatment is not resorted to, extensive caries of the frontal bone in the vicinity is very likely to occur, the dead bone coming away in small flakes.

The proper treatment consists in making a communication between the abscess and the cavity of the nose, so that, by continuous drainage and the use of either caustics or astringents, the discharge of pus may cease and the cavity eventually fill up. If the abscess have not opened externally, make an incision through the skin, over the most prominent part of the swelling, and evacuate the contents. Usually the antero-inferior wall of the frontal sinus will be found either entirely absorbed or reduced to a mere shell. Then enlarge the opening and explore the sinus thoroughly for dead bone. Put one finger in the sinus, and the little finger of the other hand in the corresponding nostril, so as to find out how near the fingers may be approximated, and thus learn how far the destructive process may have extended. If the intervening bony division is found to be thin, it should be divided by a small gouge, working from the sinus downward and inward, and, a communication having been established, a small rubber drainage-tube, suitably pierced with holes, should be introduced. This serves the double purpose of keeping the channel open and of enabling the surgeon to wash out the sinus and nose. When this has been done, and all particles of dead bone removed, the suppurative process diminishes very rapidly; and when the drainage-tube is removed, the external fistula closes of itself, though occasionally it may need to be stimulated, either by freshening the edges or by one or two applications of some caustic agent.

The following case is a typical one of its kind, and, as the disease is a rare one, the history will be given in full.

Case.—The patient was a young man, æt. 25, an officer in the merchant marine, who had been troubled for years with naso-pharyngeal catarrh, which had affected the middle ear and caused deafness, for which he had been treated. The catarrh remained, however, and his attention was directed to his present trouble, three years before I saw him, by a severe pain over the right eye, just below the eyebrow, which lasted a week or ten days, and was followed by a swelling in the same place. This occurred in the course of an acute attack of naso-pharyngeal catarrh. This swelling he could cause to disappear by pressure, and then the contents seemed to escape by the right nostril. These symptoms have recurred again and again, and sometimes the swelling was so great as to close the right eye. Three months before I saw him the swelling had recurred, opened externally with great pain and redness of the skin of the lids and forehead, and a large quantity of pus discharged. Since then the abscess has never closed, but a small amount of offensive pus is discharged constantly, and occasionally small particles of bone have come away. There is a fistulous opening through the upper lid, just beneath the edge of the orbit. The mouth of the fistula is adherent to the orbital margin, and a probe introduced passes upward, backward, and inward to the depth of an inch and a quarter.

An incision was made parallel to the orbital margin with a strong scalpel, for about an inch in length, which easily broke through the thin shell of bone which was left. The lips of the wound were then held apart, and the cavity carefully and gently syringed with warm water. Some pus and a few small scales of dead bone came away with the water, but none passed down into the nostril. An examination of the frontal sinus then showed an eroded condition of its bony walls, with, however, no very extensive caries. A second use of the probe broke through a slender bony partition near the median line, and a stream of water injected into the sinus trickled out of the nose. The cavity was so small that it was thought best not to introduce a drainage-tube, but to introduce a tent in the external wound in order to keep it open, and trust to natural drainage. Directions were also given to syringe the sinus twice a day gently with warm water and a few drops of a saturated solution of potass. permangan. Under this treatment the purulent discharge rapidly subsided. What dead bone came away was in such small particles as were not recognizable, and in a little more than six weeks the sinus and fistula had both closed, without any further interference. The lid, however, remained attached to the orbit at the seat of the former fistula, and this interfered somewhat with its motility, though not to any very disturbing extent.

Columbus Medical College.—Certain minor chairs in this institution have been abolished and their duties placed upon the original ones to which they were subsidiary. It is intended that this change shall make the course less cumbersome to the student and more thorough.

JABORANDI IN THE TREATMENT OF PUERPERAL ALBUMINURIA AND CONVULSIONS.

By EVERETT S. WARNER, M.D.,

LATE HOUSE PHYSICIAN IN BELLEVUE HOSPITAL, NEW YORK.

In the RECORD of March 1, 1879, are reported six cases of puerperal albuminuria treated by jaborandi. Of these, four had convulsions. Five out of the six cases died, and of those which had convulsions none recovered.

The doubt in many professional minds—which such unfavorable reports increase—as to the usefulness of jaborandi as an eliminative agent, induces me to offer the following case of puerperal eclampsia, in which its administration was certainly most beneficial.

The patient was a primipara, æt. 22, six and a half months pregnant. For several days she had suffered from headache and epigastric pain, with vomiting, and had passed only a small quantity of urine. During the twenty-four hours previous to the attack these symptoms became greatly aggravated.

When I first saw her, 9.30 P.M., June 4th, she had just emerged from the third convulsion, the first one having occurred late in the afternoon of the same day.

The patient was sleeping heavily, but on awaking appeared confused and excited. Temperature (axilla) 101½. Pulse regular and full at 90 per minute. Skin hot and very dry. There was slight œdema about the ankles. Pupils dilated, but no disturbance of vision. Auscultation of anterior surface of the chest negative. Patient complained bitterly of headache. Every few moments she vomited distressingly, the vomiting being accompanied with severe epigastric pain. The fœtal heart could not be detected, but movements of the child were distinctly felt. The bowels had moved during the day. The urine became solidified by heat and nitric acid, and this, after standing for thirty-six hours in the test-tube, showed only a thin layer of fluid above the mass of albumen. Hyaline casts only were discoverable, and these were in great abundance. Administered ℥. xv. fluid ext. jaborandi hypodermically. In about twenty minutes the skin became a little moist. Soon after repeated the dose, and in a few moments the diaphoresis was considerable—not excessive—attended with slight increase in the salivary secretion. Also ordered oxalate of cerium, grs. iij., q. 3 h.; poultices to the epigastrium, and cold applications to the head. After the first dose of oxalate of cerium the vomiting ceased, and was not renewed except once on the following day, when it lasted for a moment only. Within an hour after giving the jaborandi I left her sleeping naturally.

On the following morning, June 5th, found she had passed a comfortable night, sleeping most of the time. Pain in the head was much relieved. Epigastric pain nearly gone. Temperature 101°. Pulse still regular and full. Four ounces urine discharged during the night. The sweating, which had been encouraged by abundant coverings, continued until early morning. As the skin was now again rather dry, gave ℥ xv. of the fluid extract hypodermically, which resulted in slight perspiration. Continued the oxalate, and in addition gave inf. digitalis ʒ ij. with pot. acetate, grs. xv., q. 3 h., and applied dry cups over the kidneys. Eight ounces urine passed during the day.

There were two convulsions during the day—one at 10 A.M. the other at 4.30 P. M.—which were controlled by chloroform. The non-viability of the child, the anxiety of the parents for its life, and the improvement in the condition of the mother, together with the fact that the existence of the child had been determined on the previous day, had prevented the induction of labor.

The next morning, June 6th, uterine contractions began. An enema was given and the os partially dilated by the fingers.

Labor terminated in four hours. The fœtus had evidently been dead for only a short time.

The last convulsion, which was long and severe, occurred three hours after delivery of the child. I saw her soon after it. She was tossing uneasily about the bed. The condition of the pulse did not warrant the further administration of jaborandi. Gave ℥. ix. Magendie's sol. morphia by hypodermic injection.

June 7th, morning.—Patient slept well. Passed about twelve ounces of urine during the night, fifty per cent. of which is albumen. Casts are less numerous. The digitalis and acetate of potass., discontinued on the previous day, are again renewed.

From this time patient rapidly improved; the urine increased to more than normal quantity. Albumen and casts gradually grew less, and now, June 16th, twelve days after the attack of convulsions, the urine is normal and patient is allowed to sit up.

Had the usual dose of jaborandi or its alkaloid, pilocarpine, been given in this case, I doubt very much whether it would have progressed so favorably.

From the numerous cases, chiefly of Bright's disease and principally in hospital practice, in which I have watched the effect of the drug, I can but believe that the ordinary dose—ʒ i. of the fluid extract—is, as a rule, by far a too large, and in many cases a dangerous quantity to administer.

A case was admitted, last winter, to Bellevue Hospital, suffering from acute Bright's. The skin was hot and dry; pulse strong and regular; temperature considerably elevated; auscultation of the chest negative. I immediately gave ʒ i. fluid extract jaborandi by mouth. Within an hour, while in a most profuse perspiration, the patient was suffering from extreme dyspnœa, with bronchial and tracheal râles.

The case terminated fatally in a few hours, death apparently being due to suffocation, as the action of the heart continued good until near the end. The autopsy showed œdema of the lungs, with a large amount of fluid in the bronchi. Jaborandi increases the bronchial secretion, as the frequent development of abundant râles, soon after giving it, proves. This increase is sometimes so great as to prove a serious obstacle to respiration. May not jaborandi also cause transudation of fluid into the pulmonary air-cells?

Obstructed respiration and failure of the heart's action seem to me to be the dangers especially to be feared in prescribing it. By giving the drug in small doses the patient is not subjected to these dangers; at the same time considerable diaphoresis is produced, with but slight salivation.

By no other means can sweating be brought about so quickly, easily, and with less discomfort to the patient. ℥ x.—xv. of the fluid extract, or the equivalent in pilocarpine, should be given either by the mouth or hypodermically, and this dose repeated every half-hour until moderate perspiration is induced. By keeping the patient well covered, diaphoresis will continue for several hours.

123 EAST TWENTY-FIFTH STREET.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE HOSPITAL, PHILADELPHIA.

Notes of Practice and Peculiarities of Treatment.

(Reported for The Medical Record.)

CYSTITIS IN THE MALE.

If there is acute pain and spasm, blood is taken from the perinæum by means of leeches. The patient is kept in bed, and hot fomentations are applied over the pubes. At the same time he takes demulcent drinks with a little hyoscyamus. If the pain be violent, morphia is given by the mouth or rectum.

The following prescription is frequently employed:

℞. Pulv. opii..... gr. xij.
Camphoræ..... gr. xxx.
Ext. belladonna..... gr. iij.
Cacao..... q. s.
M. et in suppos. No. vi.; divide.
S.—One each night before retiring.

The diet employed is bland and unstimulating.

After the acute symptoms have abated, balsam of copaiva is given thrice daily in capsule, or rubbed up in an emulsion. To this opium is occasionally added to prevent flatulence and griping. Turpentine in capsule is used with advantage in some cases. Other remedies are sometimes employed—such as buchu, decoction of trailing arbutus, or uva ursi with hops, highly recommended by Sir Henry Thompson—uvæ ursi, f ʒ iss., lupulinæ, ʒ i., aquæ, Oij. This mixture is allowed to simmer for two hours; then enough water is poured in to bring the quantity of the mixture up to two quarts, and then two grains of morphia and two drachms of the bicarbonate of sodium are added. The dose of this mixture is a wineglassful.

In some cases benzoic acid is found very useful. The initial dose is five grains, and the quantity is then gradually pushed up to thirty grains, and, in some instances, as much as one drachm is taken thrice daily.

A prescription very often employed by Dr. S. W. Gross and other members of the hospital staff is the following:

℞. Copaibæ balsami..... ʒ iv.
Acid. benzoici..... ℈iv.
Gummi arabaci,
Sacchari, āā..... ʒ ij.
Gaultheriæ olei..... gtt. xx.
Aquæ camphoræ, q. s. ad..... f ʒ viij.
M.
S.—A tablespoonful every four hours.

As regards the treatment of the urine, the first thing that is done after dilating the stricture, if one exists, is to wash out the bladder. This is usually done in the following manner: A gum elastic bag, holding about four ounces, is procured, and a basin full of water at 98° is made ready. Then, after drawing the urine with a flexible catheter, whose end is smooth, the bladder is washed out by simply connecting the mouth of the bag with the catheter, which has been allowed to remain *in situ*. The warm water thus injected is retained as long as possible, then drawn off, and the operation repeated.

If the urine is fetid, one grain of the permanganate of potassium, or a small part of carbolic acid, is added to each part of warm water. When the water comes out clear, if it is desired to make an impression upon the mucous membrane of the bladder, a solution of borax (fifteen grains to the fluid ounce of water) is injected. At other times a twenty-grain solution of the nitrate of silver is employed. If this solution does not cause too much smarting it is allowed to remain ten seconds in the bladder.

The patient is kept at rest in bed during this treatment, and placed upon a very bland diet. (If there be any pain after the warm-water injections have come away, a little morphia is thrown into the bladder, and allowed to remain there; or, if this does not afford relief, a hypodermic injection is given).

In some bad cases it is necessary to perform cystotomy, or colotomy, in order to bring about a free discharge of fluid from the bladder.

Patients with cystitis are warned not to ride in wagons over rough stones; if possible, to refrain altogether from riding. They are advised to avoid all stimulating drinks, and to always wear flannel next their skin. They are not allowed to eat any greasy food, but are allowed plenty of fish and oysters. Their bowels are kept open by cold-water injections, or saline cathartics.

TINEA FAVOSA.

The hair is first pulled out by the roots, the parasites killed, and the scabs poulticed. Before beginning to pull out the hair, however, the whole head is closely shaved. The separate hairs are pulled out with delicate tweezers. These hairs are pulled out in their long axis, otherwise they would be liable to break off short. The poultice is applied immediately after the hairs are pulled out, so that the pustules may be well softened. After applying the poultice some parasiticide—such as the iodide of sulphur, or the bichloride of mercury—is rubbed in. The parasiticide most frequently used by Dr. J. Solis Cohen is that formed by adding gr. ij. of sulphur iodide to ʒ i. of lard.

EXTERNAL HEMORRHOIDS

are treated surgically by incising the pile with a bistoury, and then pressing out its contents, viz., the contained clot of blood. This slight operation relieves the pain and tension at once. As an after-treatment the parts are well bathed with cold water, and some medicine given to act on the liver and bowels. Dr. Samuel D. Gross does not at all believe in the immediate removal of these growths with the knife, as recommended by Erichsen and Bryant.

NÆVUS MATERNA.

Two oiled pins are pushed right through the base of the growth so that they cross each other at right angles. A groove is then cut all the way round between the points of entrance and of exit of the pins with a sharp knife. A stout ligature is then passed round the base of the nævus and underneath the pins, and is drawn so tight as to completely strangulate the growth. Dr. S. W. Gross does not believe in temporizing in these cases by the use of the cautery or by the injection of irritating substances into the body of the tumor.

TAPPING IN DROPSY.

Dr. J. Solis Cohen treats obstinate cases of dropsy of the legs by tapping. The minute trocars which he uses are made of gold, with openings at the ends and on the sides. They have sharp three-cornered points. In inserting these canulæ they are thrust well into the flesh from below upward and then fastened in posi-

tion by strings tied to their bulbous extremities. These strings are fixed by pieces of adhesive plaster. When the canulæ are fixed in position, slips of rubber tubing are fastened to their bulbous extremities. Where the fluid does not flow freely after the canula is inserted, its flow is started by pulling the rubber tubing between the fingers pressed tightly together and so creating a vacuum. Care is had not to insert the canulæ too far down in the limb, where their presence may produce a sore owing to the weight of flesh above them.

ACNE ROSACEA.

Dr. F. F. Maury treats this condition by the local application of a mercury plaster. The alimentary tract is kept thoroughly open by a methodical course of salines, such as epsom and Glauber salts, and Crab Orchard and Hunyadi János water.

In addition to the mercury plaster as a local application, the following lotion was ordered for the face:

℞. Sulphuris sublim..... ..... ℥ ij.
Etheris ..... ʒ iiij.
Vini frumenti..... q. s.
Fiat lotio.

The patient was advised not to drink anything but a little red or white wine, and to be careful to refrain from fish and too much meat.

DILATATION OF THE STOMACH.

The endeavor is made to produce contraction of the walls of the stomach by washing out the ingesta with the stomach-pump, and then rinsing out the stomach with a solution of some disinfectant. The double effect is thus had of cleansing and gymnastic exercise. In inserting the stomach pump the head of the patient is turned back, and the tube is passed down the œsophagus over two fingers placed in the mouth as a guide. This treatment by the stomach-pump is persevered in for a long time. The stomach is well rinsed out at each sitting. To get rid of remnants of food-emetics are employed. The patient's general tone is sustained by tonics.

PROSTATORRHŒA WITH STRICTURE.

Where the stricture is fibrous, it is gradually dilated by means of Dr. S. W. Gross's expanding bougie. Where it is spasmodic and due to hyperæsthesia of the urethra, it is treated by the persevering introduction of conical steel bougies of gradually increasing sizes. If the meatus is unusually small it is slit up.

In obstinate cases of this nature astringent local applications are necessary, such as nitrate of silver, which is applied by means of the *porte caustique* devised by Prof. S. D. Gross. The solid nitrate is the form of silver used. After applying the caustic the patient is kept in bed, his diet reduced, and demulcent drinks administered freely.

If there be constipation, the bowels are kept well open by means of an occasional purge, or the patient takes as a routine medicine, each morning before breakfast, f ʒ vi. of Hunyadi Jánós water, or the following prescription, which was first originated by the late Dr. Robley Dunglison:

℞. Mag. sulphat..... ʒ j.
Potass. bitart..... ʒ j.
Ferri sulphat..... gr. x.
Aquæ ....q. s. ad Oij. M
S. A wineglassful every morning before breakfast.

Another excellent plan which is often pursued is to inject five or six gobletfuls of cold water into the rectum each morning.

The diet provided is nutritious but bland. No coffee, tea, malt or alcoholic liquors, and no greasy or fried foods, are allowed.

For breakfast he is given grits or oatmeal, meat, and bread and butter; for dinner plenty of good rare beefsteak or mutton-chop, with potatoes, tomatoes, etc. Supper should be a light meal.

If there be any anæmia, something like the following is given:

℞. Quiniæ sulph..... gr. xl.
Tinct. ferri chloridi..... f ʒ iv.
Tinct. nucis vomicæ..... f ʒ ivss.
Aquæ.....q. s. ad f ℥ ijss. M.
S. A teaspoonful four times daily in water through a siphon.

If, on the other hand, there be a tendency to plethora, depressants and purges are employed. The patient takes a sitz-bath every night and morning. He sleeps on a hard mattress, empties his bladder thoroughly before going to bed, and uses only the lightest of coverings.

To keep down the venereal appetite thirty grains of the bromide of potassium are given thrice daily.

Where the condition is obstinate, local blistering is resorted to. A camel's-hair brush is dipped in cantharides and collodion, and a couple of lines are drawn with it first on one side of the raphé of the perineum, and then on the other.

Intercourse is had regularly so that the distended seminal vessels may be relieved, but it is never had at shorter intervals than every two or three weeks.

Where there is functional disease of the heart with palpitation, and flushing of the face, there is nothing better than digitalis in small and long-continued doses. It may be given in any of its medicinal forms.

PARALYSES OF THE RECURRENT LARYNGEAL NERVE.

Nerve tonics, such as strychnia, phosphorus, iron, and cod-liver oil, are used. In the so-called instances of hysterical and nervous aphonia, a sponge-probang is moistened and brought into contact with the vocal cords, which are thus thrown into a state of spasm and so brought together. The same effect is produced in other cases by sprays of ether projected upon the part, or by inhalations of pungent substances.

When all else fails, electricity is employed and is applied directly to the paralyzed muscle.

In using electricity, the plan is to place one electrode directly over the crico-thyroid ligaments outside, and then to carry the other electrode into the larynx and place its point in contact with the cords, or between them. The electrode in the throat is only kept in position a few seconds at a time. Cures are often effected in this way by a single application.

Where intra-laryngeal electric excitation is not possible, the percutaneous method is tried. This consists in passing a current from one side of the neck to the other, and so through the larynx. Or, the patient is placed upon the insulating stool and a spark is drawn from the cricoid cartilage with the knuckle.

In cases of hysterical aphonia a cure is often effected by the mere introduction of the laryngeal mirror, the patient being given to understand that this is the curative procedure.

Another method often tried is to stand behind the patient and grasp the thyroid cartilage between the thumb and forefinger, while at the same time the middle finger is placed under the cricoid cartilage, pulling it up and in front of the thyroid. In this way the vocal cords are stretched and made tense, and so caused to vibrate by means of the inspiratory current.

Progress of Medical Science.

Bilateral Neuroretinitis Descendens in Diabetes Mellitus; Tumor of the Brain.—Dr. Grossmann, of Buda-Pest, reports a case of diabetes mellitus complicated with bilateral neuroretinitis descendens, with consecutive amaurosis, in which the autopsy revealed a tumor as large as a walnut, situated at the base of the brain just anterior to the pons. The tumor was firmly adherent to the dura mater, and involved the hypophysis, the chiasma, and neighboring parts of the brain as far as the gyrus calloso-marginalis. The pia was thickened and the fourth ventricle was filled with a pseudo-membranous mass. Microscopically the tumor consisted of elements belonging to the connective tissue group, almost all the varieties of that group—from mucous tissue to dense fibrous tissue—being represented; the greater part of it was made up of blood-vessels with immensely thickened walls. It was impossible, however, to class the tumor with any of the special forms of morbid new growths. The diagnosis of sarcoma could not be made because of the varied forms of the cells and of the mode of development, the brain substance being directly involved in the new growth, and not merely pushed aside by it. It was not a glioma, because the new growth sprang from the connective tissue of the blood-vessels, and not from the neuroglia. It seemed more properly to constitute an intermediate form of tumor produced by the concurrence of vascular new growth with chronic inflammation.

During life the probable existence of a cerebral lesion had been admitted, but the direct diagnosis of a tumor of the brain was not made on account of the absence of symptoms pointing to that affection. In all probability the cerebral lesion constituted the original affection, the diabetes being consequently symptomatic of it. This view seems to be especially favored by the fact that a pseudo-membrane nearly a millimetre in thickness was found filling the fourth ventricle. The bilateral amaurosis was due partly to the direct pressure of the tumor on the chiasma and the optic nerves and tract, and not solely to the original obstructive neuritis. During life the urine had contained albumen, but as the autopsy revealed no nephritis, the pathological changes in the fourth ventricle and the neighboring parts of the brain produced by the tumor may be regarded as the cause of the albuminuria as well as of the mellituria. In the treatment of the case, Carlsbad water, carbolic acid and salicylate of soda had been employed. The quantity of sugar excreted diminished under their use, but it never disappeared entirely from the urine.—*Berliner klin. Wochen.*, March 10, 1879.

Cutaneous Biliary Fistulæ—Extraction of nearly a Hundred Calculi through the Abdominal Walls.—In July, 1876, Dr. Anger, of Menilmontant, was called to see a woman, aged 63 years, whose abdominal walls were, so to speak, riddled with fistulous openings, which led into large subcutaneous cavities. The openings discharged freely a greenish yellow pus resembling the bile in color. The patient had suffered for over thirty years from violent attacks of biliary colic recurring at irregular intervals; sometimes she would be almost free from them for years, and again they would come on very frequently. In the intervals she complained almost constantly of a feeling of weight in the right side. In February, 1876, she had a series of attacks of colic, accompanied by constipation and vomiting, complete loss of appetite, tympanites, and great difficulty in walking. In the early part of April a red and painful swelling appeared on the right side, a little above the umbilicus; this swelling soon spread over the entire lower portion of the abdomen and extended to the right leg. On April 15th the tumor broke suddenly with a noise like that produced in opening a bottle of champagne, and a jet of watery fluid with a pronounced fæcal odor, escaped. On the following day her bowels moved for the first time in fifteen days. Toward the end of April several black spots appeared on the lower portion of the abdomen; these were soon transformed into fistulous openings, which gave exit to a blackish magma containing a quantity of small biliary calculi. When Dr. Anger was called to the patient he found the abdominal walls red, indurated, painful to the touch, and presenting four fistulous openings, through which the sound entered into large subcutaneous cavities. Through the upper opening biliary calculi could be felt at a depth of about five centimetres. This opening was dilated with tents of laminaria until the finger could be introduced with ease, and about a hundred biliary calculi were then removed with ordinary dressing-forceps. The ductus choledochus was found to be almost as large as the little finger. After the removal of the calculi the fistulous canals and the cavities were freely laid open and an alcohol dressing was applied. After the operation the fever disappeared, the appetite returned, and the wounds gradually, but very slowly, healed. There has been no return of the colic since the operation, and the patient now enjoys better health than she has at any time since she was twenty-one years of age. Dr. Anger ascribes the formation of the calculi in this case to the excessive use of butter.—*La France Médicale*, April 16th, 1879.

On the Albuminate of Iron.—In the wards of Prof. Demarquay, in Paris, the albuminate of iron has been employed with much success in the treatment of chlorosis and of the anæmia of chronic uterine disease. Under his direction a series of experiments were undertaken to determine the absorbability of the ferruginous preparations. The results showed, first, that the discoloration of the fæces is not proportionate to the quantity of iron excreted. Certain salts of iron which are discharged almost entirely, undergoing little modification in their passage through the intestine, do not color the fæces, while others, for example the citrate, of which the greater part is assimilated, color the fæces decidedly. Second, that the quantity of iron absorbed stands in general in a direct ratio to the solubility of the salts ingested. From this point of view of assimilation, the salts formed by combination with organic acids, such as the citrate, the tartrate, etc., and above all the albuminate, must be placed in the front rank.

In a case of extreme anæmia resulting from repeated hemorrhages that were due to a uterine polyp, the albuminate of iron rendered the most signal service. The patient was unable to retain any other form of iron on her stomach, and seemed to be almost at the point of death. The albuminate of iron was ordered in combination with the syrup of bark (liqueur de Laprade); the first two spoonfuls were retained with difficulty, but the third was well borne. On the eighth day the patient was able to eat solid food, and the paleness was less intense. Fifteen days later the microscope showed a marked increase in the number of red blood-globules. She was sent to the country, and in a month menstruation had reappeared, and the patient presented the appearance of perfect health.—*Gazette Obstétricale*, March, 1859.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 12, 1879.

DUTY ON CINCHONA ALKALOIDS.

THE act for removing the duty on cinchona alkaloids has been passed by both houses of Congress, and presumably will become a law. With such a state of things the medical profession is well pleased, inasmuch as the price of quinine will be reduced and the consumer will have less of a tax to pay to the manufacturers. Looking upon the question from the standpoint of its general merits, it is difficult to conceive why any opposition should have been raised against the measure. As predicted, however, several of the large manufacturers not only viewed it as a calamity, but asserted with a degree of positiveness intended to alarm the public, that they would cease to place the drug upon the market. The more direct source, however, from which the opposition emanated points very plainly to a personal interest in the taxation of quinine which can hardly be considered of ultimate advantage to the consumer. We do not see how this can be denied. For, the minority which led and sustained the opposition, and availed themselves of parliamentary tricks to defeat the bill, were too inconsiderable to weigh in the balance against the general sentiment of the House, or impress the majority of the members in favor of the few monopolists whose interests were so openly advocated.

Notwithstanding the assumption on the part of these manufacturers, it is fair to presume that they will not attempt, and cannot stop the supply.

The removal of taxation may decrease their profits, but there will still remain for them an abundance of remunerative margin for carrying on a profitable business. But, as has been intimated, suppose they do stop manufacturing the alkaloids. We believe the result will simply be that the cinchona barks they use will either remain in Europe or go directly there, and that the same quantity of the alkaloids will be accessible at lower prices. Before the tax was removed the manufacturers here were enabled to pay higher for bark than the same would bring in Europe, and the higher prices paid here were transferred to the cost of the consumer in the product. In that manner the manufacturers here became injurious competitors with the cheap makers in Europe, without giving any adequate reason why the alkaloids cannot be made as cheaply in this country as elsewhere. It now remains to be seen whether or not the manufacturers will cease work. But if they do, we believe the law of demand and supply will furnish to the consumer all his necessities will require.

THE HOSPITAL BIBLE, FRUIT, AND FLOWER MISSION.

A FEW weeks ago there was inaugurated in East Twenty-sixth Street, which may be said to be the medical quarter of the city, a new auxiliary to the work which is being carried on by medical men in the hospitals. Certainly, medical men are the chief workers in all institutions for the care of the sick; but what would they be without nurses? What would they be without the aid of those who care for cleanliness in the wards where lie the helpless and the sick? This institution, of which we have spoken, is to be the headquarters of the mission to the sick in the hospitals; a mission which is to care, not for their necessities, but to see to it that the sick poor secure some of the luxuries of life. *We may* possibly be criticised if we continue to say, not the necessities, when it is remembered that it is a Bible as well as a fruit and flower mission. But, as medical journalists, we are obliged to leave out of account, to a large extent, the religious aspect of the mission, much as all men, who wish well for their kind, may rejoice that truth and consolation, which all appreciate, are brought to the suffering.

The object of the ladies who have founded and carry on this enterprise is to visit the sick and provide them with the delicacies which hospitals cannot furnish, and also to surround them with the fragrance and beauty of flowers. Besides this, there is religious instruction for those who are willing to accept it.

The late civil war developed many such instrumentalities for the alleviation of the sufferings of the sick, as that of which we are now speaking. Among the most useful employment of the volunteers who visited the hospitals during that period was that of letter-writing for the patients. Nurses are proverbially overworked, and letter-writing in their hands is either hastily or poorly performed, or not at all. At the outset of our commendation of what the ladies of the Fruit and Flower Mission are doing, we would venture to suggest to them for their consideration that they add letter-writing to their other beneficent work.

We are inclined to think the influence of mind over matter is sometimes underrated by medical men. The true physician will always be careful to favor cheerfulness in the mind of his patient. The element

of hope and faith, and the conviction that one is being cared for by some one else, sometimes do very much even to assist a fractured limb or a wound to heal, or to abate the violence of a fever. As an auxiliary, therefore, to the great work in which most of our readers are engaged—that of lengthening life and mitigating human suffering—we hail this one, which has now been through three years of existence, and which may be said to be firmly established. It should be added that these Christian ladies propose to enlarge the work they have been doing by caring for the throng of so-called convalescents who are daily deposited upon the wharf of the Board of Charities and Correction. The importance to these of the coffee-room, which is connected with their mission, can hardly be overestimated. There are dozens of drinking-shops waiting for the patient who has been discharged from Bellevue and Blackwell's Island, and it is well that there is at least one place where they may eat and drink that which will not in any manner provoke a new attack of the malady from which they have been suffering, or cause another accident which will render them subjects of the public bounty.

PROF. WILLIAM H. VAN BUREN, M.D., LL.D.

It will be a subject of congratulation to the many friends of Prof. William H. Van Buren to learn that he has been the recipient of the honorary degree of LL.D. from Yale College. This is the first time that such a degree has been conferred upon a medical gentleman by this institution, and it is peculiarly gratifying to the profession that Prof. Van Buren should be the one chosen for such a distinction. He has ranked for many years as one of the leading surgeons of the country, and his attainments as a medical scholar, as an author and teacher, are acknowledged to be of the highest order. With a full appreciation of the motives which actuated the trustees of Yale in conferring the degree, we scarcely know which is the more honored, the giver or the receiver. In view of the happy choice, it behooves us to congratulate both.

DEATH IN THE PROFESSION.

The *Lancet* very feelingly and appropriately refers, in a recent issue, to the circumstances attending the death of Drs. Murchison and Tilbury Fox. Both were similarly afflicted with a mortal disease, and both were aware of the fact during the latter years of their lives. Yet, notwithstanding this, they worked faithfully in their profession to the last, and none but their most intimate friends knew of the dreadful clouds which were hanging over their inner lives. None but themselves knew of the terrible forebodings which were ever present to them in the hours of their greatest successes, and during the times when the hope for a prolonged period of usefulness would reach an agony of spirit never to be appreciated save by those who likewise suffer. Many in our ranks at present are carrying about with them the dreadful consciousness of a mortal disease, are walking with calm desperation under the very shadow of death and are manfully striving to forget their doom in the excitement of work. The dreadful knowledge of an incurable disease is one which every physician strives to spare his patient. It is a burden so grievously borne by the ordinary run of mankind that some ray of hope is always left in the mind of the sufferer as he leaves the consulting-room. With the medical man who similarly suffers, the case is entirely different. As the *Lancet* truly and forcibly says: "But what blight can fall on the consciousness of the layman, what withering hope be felt within the mind that only partly realizes its own danger, compared with that which crushes the spirit and renders the heart faint in the breast of the well-instructed and experienced pathologist, who from the moment he hears from the lips of a trusted friend, or by his personal skill discovers the truth about his condition, foreknows his own doom." To avert it he knows is an impossibility, and yet with a fortitude which amounts to the sublimest heroism, calmly performs his duties to the last, forgetting his own suffering in the desire to alleviate that of his brother. We have in mind several of our friends who might be named in this category. One in particular is forced upon our recollection in this connection. It may not be known to all that the late Dr. Cammann carried with him for years the conviction of the existence of valvular disease of the heart. He made the diagnosis himself shortly after an accident which caused the lesion, and kept the secret from his family for many years, until shortly before his death; and yet during all the long period, with the constant reminder of his disease, which night and day murmured its existence to his cultivated ear, he made his reputation as the first auscultator of his day by heroically facing his enemy in the study of cardiac troubles. As we have already said, we might multiply examples, but it is sufficient to know that they are many, and that each and all serve to show that there is a compensation for the greatest of afflictions; that the severest trials develop the finest characters; and that even the omnipresent warnings of death can be lost in the calm determination to do the best we can while living, leaving the future in the hands of a kind Providence. The study of such examples is profitable for all, and the lessons which we may learn from them should be taken to heart.

Combination of Cinchona Alkaloids with Opium.—Dr. D. P. Skillern claims: 1. This combination aborts the paroxysm of intermittent fever more certainly, and the *cure* of the disease follows more surely and rapidly than when the alkaloids are given uncombined. 2. Only half the dose of the alkaloids are required. 3. It relieves the associated painful sensations. 4. Exemption from headache, tinnitus aurium, etc. 5. It enables the stomach to retain the quinia. 6. Large and continuous doses of quinia may be given, without producing cinchonism, if combined with opium.

Reviews and Notices of Books.

DISEASES OF THE THROAT AND NASAL PASSAGES. A Guide to the Treatment of Affections of the Pharynx, Œsophagus, Trachea, Larynx, and Nares. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College, Philadelphia, etc., etc., etc. Second edition, revised and amended. With 208 illustrations. New York: William Wood & Co. 1879.

THE second edition of Dr. Cohen's work on Diseases of the Throat appears in the form of a well printed, bound, and illustrated volume, containing 750 pages. The changes made consist in the suppression of some of the old material, modifying and augmenting what has been retained, adding new material, discarding old and introducing new illustrations, and omitting entirely the bibliography. The space occupied by the latter has been filled with clinical material, and, now that there is no lack of indicators to sources of information in this branch of professional study, this change is a commendable one. Special manipulations, operations, and therapeutic measures have been described in the place in which allusion has first been made to them, and do not appear in separate chapters. This plan possesses certain advantages readily appreciated by the reader, and we think adds to the clinical interest of the book. The nomenclature from the most recently published edition of the U. S. P. has been employed. Into the present edition have been substantially incorporated the author's lectures delivered in 1872, 1873, and 1874, before the College of Physicians of Philadelphia, and the classes in Jefferson Medical College, and published in the *Philadelphia Medical Times*, the *Philadelphia Medical and Surgical Reporter*, and the NEW YORK MEDICAL RECORD. Dr. Cohen is a clear writer, and has treated his subject in a manner which will be acceptable to the profession. The important changes and additions seen in the present edition render the first edition more ornamental than useful. The book in its present form will make a valuable text-book in this department.

POTT'S DISEASE: ITS PATHOLOGY AND MECHANICAL TREATMENT, WITH REMARKS ON ROTARY LATERAL CURVATURE. By NEWTON M. SHAFFER, M.D., Surgeon in charge of the New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital. New York. pp. 82. New York: G. P. Putnam's Sons. 1879.

THE author of the volume before us does not state for what purpose it was prepared; he certainly did not design it for a practical work on Pott's disease, nor can it be called a pathological treatise. It is divided into two chapters: one on pathology, and one on the treatment of Pott's disease. There is nothing on its symptomatology, except what is interwoven with its pathology. Our author states that he prefers the name of "spondylitis" to any other—why, he does not state. It seems to us an error, both from its derivation—"spondylos," a vertebra, and "itis," inflammation—and its accepted use. Spondylitis is used to designate an entirely different disease, namely, an acute inflammation, *not* of the bodies of the vertebra, but of the *lateral masses;* rheumatic in its character, in which the outlying processes are locked together, as it were, by outgrowth from the periosteum, and is *not* accompanied by any *destruction of bone.* An acquaintance with the work of Julius Braun, published in Hanover in 1875, and a reference to the files of the "*Journal of Nervous and Mental Diseases*," we think would have prevented the error that our author has made, as well as that of the distinguished professor from whom he differs so much.

By spondylitis, our author includes all diseases of the spinal column, usually denominated Pott's disease.

He states on page 1, that "I have never seen nor obtained the history of an idiopathic, *acute* spondylitis;" while on page 23 it is stated, "acute inflammation of any of the appendages of the vertebral bones *are* quite rare, and I have only seen a few cases. Two of them, I am inclined to believe, were lesions of the intervertebral cartilages." Which statement does our author wish us to accept? On page 3 it is stated, "I have never had an opportunity to examine post-mortem the pathological condition of the vertebral column before the appearance of deformity;" while a few lines lower down on the page, he states, "In the absence, among authors I have consulted, of other important facts bearing upon this point, and based upon *actual* and very *early pathological** exploration, I propose, with the aid I have derived from them, and from my own experience, both *pathological* and clinical, to consider the lesion from these standpoints." The exact meaning of the writer in these two contradictory statements we are unable to make out. He must have made a very superficial examination of "the very considerable number of works upon spinal deformity," which he informs us he possesses (page 32), not to have ascertained the fact that the disease may go on to a fatal termination without the development of *any* deformity, and that there are many reports of post-mortem examinations on record illustrating this fact. We would remark in passing, that a statement of what his "pathological experience" had been, would not have been out of place. On page 5, he says, in speaking of reflex spasm, "this reflex muscular spasm is due to an irritation, *peculiar* in its character, of the peripheral nerve, etc." * We should like to inquire what there is "*peculiar*" about it, and in what it differs from other nerve irritation, and how does he ascertain the fact?

He divides "Pott's disease, or chronic spondylitis," into four stages, namely: prodromal, one of pain, one of deformity, and one of abscess. He says, "I was tempted to make a fifth, namely, paraplegia, but this condition is so clearly symptomatic, and in reality occurs so rarely *under intelligent treatment*," * that I have classed it among the symptoms of any of the stages;" and in another portion of the volume states that paraplegia may occur without *any* deformity. We should like to inquire what the term "intelligent treatment" means, for we have seen cases in which paraplegia has come on, under what the author would recognize as "intelligent treatment." An acquaintance with the writings of Charcot, Michaud, and others, would have prevented his making a statement of this kind. The fact that paraplegia may come on before there is any deformity, proves that it is not dependent on the amount of disease, but rather on the location of the lesion in the bone or disc.

He divides the disease into a suppurating and non-suppurating variety (caries sicca), and states on page 9 in regard to the latter, "This extremely interesting condition I have seen *very** often clinically, both in the spine and large joints . . . . For reasons which I shall state hereafter, I think it very rare that this condition of caries sicca is seen in the vertebral column after death;" and on page 11, "that the general failure of vital force which precedes death, produces

* Italics ours.

an effect upon these fungous granulations which results in a rapid breaking down of the neoplastic proliferations."

We would like to know how he proves that there is no pus about a diseased vertebra.

On page 414 of Billroth's Surgical Pathology will be found a similar statement, and almost in the same words as the latter portion of the above quotation.

On page 25 he states: "I was the *first* to call attention that a *chronic* disease may exist in any given articular tissue which is sparsely supplied with nerves, or which is devoid of neural elements, without presenting any *subjective* symptoms which are of sufficient importance to attract the attention of the patient." * How can you have pain in a tissue when there is no nerve? And on *page* 4 he makes the following quotation from Billroth: "*There are cases where the bone is extensively destroyed without any pain.*" * This was written by Billroth in 1869.

On page 28, he states "that reflex muscular spasm in chronic joint disease always indicates osteitis . . . . Its presence is due to a direct pathological cause, a fact I was the first to point out." Barwell, in his work "On Diseases of Joints," page 244, says: "Pathology shows us that in synovial disease no especial action is produced among the muscles of the limb until the bone underlying the cartilage becomes affected . . .. and such contraction is produced by a morbid form of *reflex action* carried from the nerves supplying the joint to the muscles." This was written in 1860.

On page 14 he makes some remarks on rotary lateral curvature, and claims he was the first to point out the fact that "chronic synovial inflammation is not accompanied to any great extent by muscular spasm" On page 18 he says: "I am prepared to state that rotary lateral curvatures has a specific pathological cause—not merely a mechanical etiology;" but he has strangely forgotten to state what the "specific pathological cause" is.

On page 13 he says: "Septicæmia and amyloid degeneration are the most frequent causes of death in the suppurative variety, while tubercular meningitis has only too frequently, in my own experience, followed upon the dry caries." It is a well-established fact in pathology that tubercular meningitis is usually secondary to suppurating foci in other portions of the body, and rather militates against the theory of the frequency of caries without suppuration. There are other points that we should like to refer to as inconsistent as those already mentioned, but space forbids. We cannot close this portion of our review without drawing attention to the fact that he has failed to give the history of a single post-mortem appearance in illustration of the condition "which he has seen very often clinically . . . and on several occasions after amputation and excisions of the larger joints."

The second chapter is on the treatment. He condemns the plaster-of-Paris jacket, on page 48, "as filthy, and failing to accomplish the object for which it is applied," yet, notwithstanding its filth, he advocates the use of a jacket, in a modified form, for the region included by the lumbar and five last dorsal vertebræ, and states: "I have found a modification of Taylor's antero-posterior support secured with a plaster zone." He describes the application of this support fully; but only states in a general way his mode of managing disease in other portions of the spine. In fact, there is nothing practical about this portion of the volume, and one lays it down knowing but little more about the management of a case of "spondylitis" than before he took it up. The only novelties in the book are his "modified" plaster jacket, and the ball-and-socket-joint for Taylor's chin-piece, both of which are improvements. We notice an absence of any reference to the works of others in this field of surgery, except in a slurring style, and would suggest that "a mechanical demonstration" of the etiology of lateral curvature, illustrated in the dried and mounted vertebral column, and arranged with springs," etc., has the merit at least of originality about it, and is more satisfactory than the mere remark that "I am prepared to state, etc.," not supported by a single case bearing on the subject. Really, the best part of the volume is the quotations from Billroth, and these form no small part of it.

What the profession demand of one writing a book on any special subject is, that it shall be practical, and that the writer should state clearly the facts from which he draws his conclusions. Especially is this looked for from one who evidently prides himself on his pathological knowledge and his acquaintance with the literature of the subject on which he writes. We are sorry that we find so much to find fault with, and so little to praise, in a book written by one who has had an experience of "fifteen years" in the treatment of spinal deformities.

* Italics ours.

POSOLOGICAL TABLE: Including all the Officinal and most frequently employed Unofficinal Preparations. By CHAS. RICE, Chemist Department of Public Charities and Correction, New York. Revised and approved by members of the Medical Boards of Bellevue and Charity Hospitals. New York: William Wood & Co., 27 Great Jones Street. 1879.

THIS compend, constructed for the use of physicians and apothecaries, gives the names of medicines, the definitions of crude drugs according to the present state of our knowledge, and the average adult doses used in regular practice. From an appended table the proper average doses for children can be easily ascertained. The doses are given in the usual apothecaries' system, but rules and tables have been appended by which change into the decimal quantities of the metric system is readily accomplished. The medicines are arranged in alphabetical order. The author designed to make this book a convenient guide, and we believe he has been eminently successful.

GENERAL SURGICAL PATHOLOGY AND THERAPEUTICS IN FIFTY-ONE LECTURES. A text-book for students and physicians. By DR. THEODOR BILLROTH, Prof. of Surgery in Vienna. Translated from fourth German, and revised from eighth edition, by CHARLES E. HACKLEY, A.M., M.D., Physician to N. Y. Hospital. New York: D. Appleton & Co. 1879.

THE subjects discussed in this book have such a practical bearing, not only by themselves, but in relation to each other, that no one is surprised that success has attended the labors of the author, and that his work has reached the eighth edition. The plan of the work is such as enables the author, in the midst of the discussion of a pathological question, to apply a principle of treatment, of prognosis, and of diagnosis. This arrangement invests the study of its contents with great interest, and helps in a very direct and practical way, in studying the fundamental principles of pathology. In this respect it may be said to supplement the various works on general surgery, by giving the every-day experience of a thorough and practical teacher at the bedside and in the post-mortem room. As the interest in true pathology increases, so

will the popularity of this work. The English translation is that of the sixth German edition, but is made to correspond with the eighth German by the addition of an appendix, which contains the extra matter.

Reports of Societies.

THE AMERICAN NEUROLOGICAL ASSOCIATION.

Fifth Annual Meeting, held in the City of New York, June 18, 19, and 20, 1879.

Continued from p. 15.

THURSDAY, JUNE 19TH.—SECOND DAY—AFTERNOON SESSION.

THE Association was called, to order at 2:30 P.M. by the President.

The minutes of the previous day were read and approved.

REPORT FROM THE COUNCIL.

The Council reported that it had examined the papers presented by the two candidates for membership, and recommended that they be elected members by the Association.

On motion, the By-Laws were suspended, and the Secretary was then instructed, by motion, to cast an affirmative ballot for Drs. W. J. Morton and R. W. Amidon, of New York.

AMENDMENT TO THE BY-LAWS.

The amendment to the By-Laws offered by Dr. Grey was adopted by the Association.

DR. HAMMOND offered an additional amendment as follows: "The presentation of a written neurological communication shall be deemed a valid excuse for absence from an annual meeting of the Association."

COMMITTEE ON NOMINATIONS.

The President announced the following Committee on Nominations: Dr. H. D. Schmidt, of New Orleans; Dr. E. C. Spitzka, of New York; Dr. A. D. Rockwell, of New York; Dr. J. J. Putnam, of Boston; and Dr. J. C. Shaw, of Brooklyn.

PRESENTATION OF CASES.

DR. A. D. ROCKWELL, of New York, presented cases illustrating two important points in electrotherapeutics: 1. The necessity for and the good results which come from perseverance in the use of electricity in seemingly hopeless cases of infantile paralysis. 2. Differentiation in the use of galvanism and faradism for the relief of pain.

In the neuralgic case the faradic current was used after various forms of treatment had been adopted without benefit, and after four applications recovery was nearly complete, the disease having existed six months. It was a case of neuralgia in which *firm* pressure did not produce pain, while slight pressure produced great pain. In differentiating whether galvanism or faradism should be used for the relief of pain, the effects produced by pressure were most useful guides. While, however, true neuralgia and pain generally yielded more readily to the galvanic than to the faradic current, the latter was in some cases invaluable, and yielded good results when galvanism was useless. As a general rule, firm pressure well borne indicated the use of faradism.

With reference to the case of infantile paralysis, DR. MILES asked if voluntary movements had returned to the muscles.

DR. ROCKWELL replied that they had; that they were marked, and that they had returned after an absence of six months, after all normal recovery had taken place.

DR. MILES remarked that he had succeeded in such cases in restoring galvano-muscular contractility, but not voluntary action.

WHICH POLE SHALL BE EMPLOYED?

DR. L. C. GREY, of Brooklyn, asked which pole was used for the relief of pain.

DR. ROCKWELL replied that he used the descending current.

DR. HAMMOND remarked that he had reached the conclusion that it did not make any difference with regard to which pole was employed, and that the one was as good as the other.

DR. ROCKWELL remarked that to reach correct conclusions upon this, as upon other interesting points, considerable observation was necessary. He had seen cases in which, after obtaining very good results from the use of the descending current, he had, in order to hasten the improvement, used the ascending current, and all the pain returned.

DR. HAMMOND remarked that he had seen such a result from the continuous use of one current, either the ascending or the descending.

DR. GREY remarked that his experience had led him to the conclusion that it made but little difference which pole was employed, except about the eye or face. Upon the face he had found a difference in the effect produced by using different poles, and he had explained the difference by the fact that in physiological experiments and therapeutical uses of electricity the conditions were essentially different; in the one the nerve was laid bare, while in the other it was more or less deeply covered with tissues. When deeply covered, the electricity became so diffused that its direct action upon the nerve was questionable, while in regions in which the nerves were less deeply covered the conditions present in physiological experiments were more closely approximated. He then referred to a case in which so long as he used the descending current there was an amelioration of symptoms.

DR. BEARD remarked that the most interesting feature of Dr. Rockwell's case was the fact that the faradic current gave relief to the pain. It had been stated for such forms of disease we must use the galvanic current exclusively. In the cases of sciatica reported by Dr. Gibney, of New York, that idea was involved, and it was a popular opinion in Europe at the present time; but it was erroneous.

The suggestion made by Dr. Rockwell with reference to pressure as an indicator in differentiation as to the use of galvanism or faradism to relieve pain, was perhaps a good general guide; but it was not applicable to all cases.

With reference to the direction of the current, theoretically, there should be a difference, but, practically, he was not able to make the differentiation.

DR. E. C. SPITZKA thought we could be guided by the polar test, according to the instruction given by Erb, with reference to the current to be employed. With regard to relief of pain, his experience had been favorable to the sedative effects of the anode, provided a mild current was used, and to the exciting effect of the cathode.

DR. BEARD remarked that, in a majority of cases,

pain was relieved when a sufficiently mild current was used.

For the first four or five years of his practice he always knew what pole he employed, but of late years, in very many cases, he did *not* know, and he was not able to recognize any change in the results of his electrical treatment.

Dr. W. J. Morton, of New York, remarked he felt quite sure that, in neuralgia of the trigeminus the positive pole reduced pain in cases in which the negative pole produced no marked effect.

The polar difference could be distinctly seen when the poles were kept sufficiently long in contact with the tissues. Dr. Morton then referred to the fact that ulcers healed rapidly when the positive pole was applied to their surfaces, while they became deeper under the influence of the negative pole, and besides several small superficial ulcers might be produced by the negative plate.

Dr. Grey thought there could be no question but that there was a physiological difference between the poles, but he failed to see that there was convincing evidence to prove any therapeutical difference.

Dr. Hammond thought Dr. Grey would change his opinion when he witnessed the result of electrical treatment of ulcers.

Dr. Grey remarked that he had used electricity in the treatment of abscess, and that he had not seen any difference in the results obtained by the use of different poles.

Dr. Hammond remarked that he knew there was a therapeutical difference between the positive and the negative poles, and that fact he first established to his own satisfaction in a series of cases of ulcers treated by galvanism at the Baltimore Infirmary several years ago. He knew that a silver (*positive*) plate placed upon an indolent ulcer, with a zinc plate (negative) above, facilitated healing; whereas, applied in the opposite manner, the condition was invariably aggravated. The single pair of plates gave the least possible intensity.

Dr. Grey remarked that he did not question the difference in the results in the treatment of ulcers; but he should not, from that fact, argue with regard to the therapeutical value upon the unbroken skin.

Dr. Beard thought there was no chance for dispute with regard to the effects produced upon ulcers by different poles, the positive being the more efficacious for healing purposes. He believed there was one thing sure—namely, that in all countries where electricity was used, there was less and less tendency to insist upon polar use. The best writers took the view that the practical difference between the positive and negative pole was not so much as formerly supposed.

Dr. Grey remarked that he did not believe there was any difference with regard to the direction of the current; and that, if there was a difference it was between the poles.

Dr. Miles remarked that he had seen unmistakable difference between the two poles in allaying pain. In the treatment of myalgia occurring in his own person, he had found that the positive pole gave him relief much sooner than the negative.

INFANTILE ENCEPHALITIS FOLLOWED BY ATHETOTIC SYMPTOMS.

Dr. E. C. Spitzka exhibited a patient who had athetotic symptoms, as he believed, the result of infantile encephalitis.

GLOSSO-LABIO-LARYNGEAL PARALYSIS.

Dr. Hammond presented a patient suffering from the above disease. The treatment was, phosphide of zinc, one-tenth of a grain, t. i. d., and extract of nux vomica, one-third of a grain, t. i. d. Electricity was also used; and, while the patient was certain that he was improving, Dr. Hammond thought his condition would never be substantially improved.

MYELITIS WITH THE FORMATION OF CAVITIES OR VACUOLES IN THE GANGLION CELLS IN THE ANTERIOR HORNS OF THE SPINAL CORD.

Dr. R. T. Edes, of Boston, read a paper in which was given the clinical history of a case that developed, orderly and symmetrically, symptoms referable to the spinal cord. There was symmetrical atrophy of the legs below the knees, and the arms below the elbows, and the left pupil was larger than the right. The case was of a little less than four months' duration, and on microscopical examination of the cord the white substance was found normal in every respect. In the gray matter the only change consisted in the presence of large polygonal spaces or vacuoles in varying numbers in the anterior horns. The processes of the ganglion cells seemed slightly changed in places—shrunken and shortened. The lesion was found in the cervical enlargement, in the dorsal region, and in the lumbar enlargement. The specimens seemed to illustrate that parenchymatous changes might take place independent of blood-vessels or neuroglia.

Dr. Putnam remarked that he had seen a case closely resembling Dr. Edes's in clinical history, except that the fever was higher, the temperature rising as high as 104°–105° F. There was the same progressive paralysis, and, on microscopical examination, spots of softening were found in the lenticular ganglion upon the left side. In the cervical region there was an evident change in the ganglion cells consisting in large collections of fat. He thought that it was possible, if the case had lasted longer, the change might have gone on to the formation of vacuoles.

Dr. E. C. Seguin referred to specimens in his possession, of acute myelitis, in which the symptoms of transverse and total myelitis were developed within twenty-four hours. Death occurred at the end of the sixth or seventh week, and on examination he found extensive softening of the lower dorsal cord, which microscopically exhibited no special lesion, but in sections below, the first of moderate worth, there were found vacuoles, such as described by Dr. Edes.

He thought the clinical history of Dr. Edes' case belonged to polio-myelitis more nearly than anything else.

Dr. Schmidt, of New Orleans, thought the so-called vacuoles in the specimens were globules of fat. In some of the ganglion cells granular degeneration was present, which commonly preceded the formation of free fat-globules.

The Secretary read a communication from Dr. J. S. Jewell, of Chicago, expressing his regret at not being able to be present, because of serious sickness in his family.

Dr. J. J. Mason exhibited micro-photographs illustrating

THE HISTOLOGY OF THE MEDULLA OF THE ALLIGATOR,

after which the Society adjourned, to meet at 8.30 P. M.

SECOND DAY—EVENING SESSION.

The Association was called to order by the President.

The proceedings began with remarks by Dr. Wm. A. Hammond, of New York, on

METALLO-THERAPY.

He referred to its history, spoke of his own work in connection with the subject, and expressed his great surprise that a man of such scientific training and experience as Charcot should have lent himself to so vile a humbug. Dr. Hammond showed disks of various metals which he had used in his experiments, and asserted that the one of tortoise-shell was the most efficacious, and was the one used most.

The subsequent discussion of the matter showed it to be the unanimous feeling of the Society that the claims of metallo-therapy were unfounded and absurd.

In view, however, of the fact that it was not yet universally condemned by physicians, and even had the support of some eminent men, it was voted that a committee be appointed to investigate the matter, both in its medical and psychological phases.

Dr. W. J. Morton, of New York, then read a paper upon the

TOXIC EFFECTS OF TEA.

The subject, he said, was best studied by examining that class of men, such as tea-tasters, who habitually took tea in large amounts. It was, however, not easy to obtain extensive data concerning those men, for they feared if the facts become known it might injure their business. Five cases, however, had been collected, and those, together with experiments performed by the writer upon himself, formed the basis of the paper.

The bad effects of tea-tasting were known and recognized by the tea-tasters themselves, and few could carry on the business many years without breaking down. One tea-taster estimated that he got about half a pound of tea into his system during a day. It has been said that the symptoms from which tea-tasters suffered were due to alcohol or dyspepsia, but the facts collected showed the contrary.

The writer then gave the history of the cases referred to, and of the experiments upon himself.

The following is a resumé: First, as to the immediate effects of moderate doses, there was in the cases observed, an elevation of pulse, increase of respiration, agreeable exhilaration of mind and body, a feeling of contentment and placidity, an increase of intellectual and physical vigor, with no noticeable reaction.

The immediate effects of an excessive dose were rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, ringing in the ears, dulness and confusion of ideas. Following that was a severe reaction; exhaustion of mind and body, tremulousness and "nervousness," and dread of impending harm, that could not be relieved by taking more tea.

The effects of continued doses were a continuance of the tremulousness, extreme susceptibility to outside impressions, constipation, diminution of urine, and marked influence on the metamorphosis of tissue as shown by the diminution in the amount of urea. Thus, in the week during which the writer was taking toxic doses of tea the amount of urine fell from f ℥ xl. to f ℥ xxxii. per day; and in the same time the urea fell from gr. 591 to gr. 422 per day. The sulphates, phosphates, and chlorides were increased.

The results as regarded the diminution of urea agreed with previous experiments, but showed the influence of the tea much more strikingly.

From the study of the drug's action, Dr. Morton arrived at the following conclusions:

1. That with it, as with any other potent drug, there was a proper and an improper use of it.
2. That in moderation it was a mild and pleasant stimulant, followed by no harmful reaction.
3. Its continued and immoderate use led to a very serious group of symptoms, such as headache, vertigo, ringing in the ears, tremulousness, "nervousness," exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia.
4. The mental symptoms were not to be attributed to dyspepsia.
5. It diminished the amount of urine, and retarded the metamorphosis of tissue.
6. Many of the symptoms of immoderate tea-drinking were such as might occur without a suspicion of the real cause.

The paper being open for discussion, Dr. J. J. Putnam, of Boston, asked whether the symptoms of weakness, nervousness, etc., which followed the taking of large doses were those of reaction, or were the continued toxic effects of the drug.

Dr. Morton thought that they were the latter.

Dr. Hammond referred to a case of his where the patient suffered intensely from neuralgia brought on, he believed, by tea-drinking.

Dr. Miles asked if the tea-tasters were subject to any great mental strain or anxiety in their business.

Dr. Morton said that they were not. Referring to the influence of alcohol, he asserted positively his belief that it had nothing to do with the train of symptoms he had given. There was, to be sure, very often a craving for alcohol, but it was not uniformly felt, and the danger of drinking was appreciated by the tea-tasters.

The Association then adjourned to meet on Friday at 2.30 P.M.

FRIDAY, JUNE 20TH.—THIRD DAY AFTERNOON SESSION.

The Society was called to order at 2.30 P.M. by the President.

The minutes of the previous day were read and approved.

The amendment to the By-Laws proposed by Dr. Hammond was adopted.

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations made the following report:

For President—F. T. Miles, M.D., of Baltimore, Md.

For Vice-President—R. T. Edes, M.D., of Boston, Mass.

For Secretary and Treasurer—E. C. Seguin, M.D., of New York.

For Council—Dr. F. K. Kinnicutt, of New York, and Dr. L. C. Grey, of Brooklyn, N. Y.

Dr. Geo. M. Beard presented two patients who illustrated anthropophobia and topophobia. Both were strong, vigorous men.

THE DOSAGE OF ELECTRICITY.

Dr. Geo. M. Beard read a paper on the above subject, in which he stated that the dosage of electricity was a complex result of a number of different factors.

1. The strength of the current.
2. The length of the application.
3. The quality of the application, and
4. The method of the application.

1. The strength of the current.—It was difficult to

estimate that, and to say that we had treated a patient with so many cells was saying but little. The size of the electrodes, the manner of their application, and the moisture of the skin, must all be taken into consideration. The resistance offered by the skin was also an important element, for it was variable, and besides, the quality and temperature of the water were important considerations in making an estimate.

The amount of electricity passing through the body was varied by—

a. The electro-motive force of the battery.

b. The internal resistance within the battery; and

c. The external resistance outside of the battery.

2. The length of the application could not be determined with minute precision. As a rule, European neurologists made shorter applications than did the American. There was no question but that long applications exhausted muscles, and an application of one or two minutes' duration to a paralyzed muscle was all that was beneficial. The beginning of electrical treatment should be with short applications and mild currents.

No absolute rules could be given regarding strength of current or length of application. Other things being equal, a stronger current required shorter applications. Other things being the same, the galvanic current was not so well borne for a long time as the faradic current of corresponding strength.

3. The quality of the application. The use of mild currents at first was wise. Experience compelled us to admit that stimulating as well as sedative effects could be obtained by negative as well as positive poles. Practically, the difference between the positive and the negative poles, and between the ascending and the descending currents, was one of degree rather than kind.

4. The method of application was largely included in what had been said. He had long ago recommended the terms, medium, mild, and strong currents, as the best approximation possible to a fair description of the doses of electricity.

Again, the dosage of electricity was modified by the external position of the poles. The same strength of current with the negative pole was a stronger application of electricity than with the positive pole in the same locality.

Even the best constructed galvanometers interposed in the circuit could not be an accurate measure of the dosage of electricity, for the reason that the amount of electricity passing through the body of the patient would vary with the pressure on the sponge and with the position of the electrodes. Consequently there might, in different applications, be the same number of degrees indicated by the galvanometer, while the applications really were very different in their character and in their effects, because the electrodes were differently placed.

Temperament was another element to be taken into consideration in regulating the dosage of electricity.

Finally, what was true of familiar drugs, and the conditions regulating their dose, was true of electricity.

Dr. Rockwell remarked that, in his opinion, the only rule that could be laid down with reference to the dose of electricity was that the faradic current should never be given of such strength as to make it unpleasant for the patient, except in treating paralysis; and the same held good with reference to the galvanic current. He had experienced advantage from the use of a long-coiled galvanometer, although the instrument had no practical value except to show the presence of a current and to determine the positive and the negative poles. He also spoke of the benefits of general faradization.

Dr. Grey spoke of the good effects of general faradization, and then followed a long discussion regarding the manner of its application, which was participated in by Drs. Rockwell, Grey, Hammond, and Beard, and finally the discussion was postponed until the evening session.

PATHOLOGICAL LESIONS IN THE NERVOUS SYSTEM IN YELLOW FEVER.

Dr. H. D. Schmidt, of New Orleans, demonstrated microscopical specimens prepared from the brain and spinal cord of patients dying of yellow fever.

From his experience in that disease he was satisfied that, in the great majority of cases, death occurred from congestion of the brain. If the case had sufficient duration, pathological changes occurred in the ganglionic bodies of the nervous system. Fatty degeneration and fatty infiltration were prominent characteristics of this disease, and the fatty change was developed within four or five days in some of the organs. His observation had not been sufficiently extensive to enable him to say whether the fatty changes were due to direct effects first upon the blood or first upon the nervous system, or whether there was a double action. He had made sixty autopsies in yellow fever cases, and in all instances in which he had made microscopical examinations he had found the brain congested, sometimes throughout, sometimes in certain portions, especially in the parietal lobe. In some cases he found the ventricles filled with serous fluid and sometimes purulent. During the last epidemic he examined the spinal marrow and the sympathetic system, especially the semilunar and the first thoracic sympathetic ganglia. To his surprise he found in the semilunar ganglion, also in the thoracic, that the nuclei of the ganglion cells were entirely gone, and besides, that the ganglion cells had a true fatty lustre. The ganglionic cells in the cortex cerebri had undergone fatty degeneration, and in almost all cases it was difficult to recognize the ganglionic cells. The object of exhibiting the specimen was simply to show that the congestion in yellow fever was throughout the entire brain in the great majority of cases; cerebrum, cerebellum, pons, and medulla oblongata.

With regard to convulsions which had been described as uræmic, he did not believe they were of that character. He believed that suppression of urine occurred only in exceptional cases of yellow fever. In 1867, in the course of a large practice in yellow fever, he saw but two cases of real suppression of urine; almost uniformly such cases were cases of retention, and he had usually found urine in the bladder of persons dying with what had been supposed to be due to suppression of urine.

Dr. Schmidt did not accept the doctrine advanced by Dr. Richardson of Philadelphia, that the tubules of the kidneys were filled with bacteria; they were blocked up with disintegrated epithelium, and he did not accept the opinion that the blood underwent decomposition.

CHOREA IN HYSTERICAL CHILDREN.

Dr. G. C. Grey, of Brooklyn, read a paper containing the histories of several cases in which chorea and hysteria coexisted in the same children; three girls and one boy. The paper was discussed by Drs. Spitzka, Rockwell, and Hammond.

Dr. R. W. Amidon, of New York, then read

A CONTRIBUTION TO THE STUDY OF CEREBRAL LOCALIZATION.

The paper consisted in a study of six cases of lesion of the brain: 1. Traumatic capillary cerebral apoplexy; 2. Cyst of the pia-mater; 3. Cerebral laceration and hemorrhage traumatic; 4. Old yellow patches of softening; 5. Pistol-shot wound of the head; and 6. Pistol-shot wound of the head, with a remarkable magnitude of injury without cerebral symptoms. In the last case there was perfect exemption from paralysis and no aphasia.

In the opinion of the author of the paper, localization of destructive or irritative lesion in the motor district of the brain had reached as near perfection as it ever would, for small patches of gray matter occupied only similar positions in all processes, and might be found in a slightly different level in different brains.

On motion, the discussion was postponed until the evening session.

The Society then adjourned, to meet at 8.30 P.M.

THIRD DAY—EVENING SESSION.

The Society was called to order by the President.

The discussion upon Dr. Amidon's paper on the "*Localization of Cerebral Functions*" was continued.

DR. E. C. SPITZKA, of New York, remarked that the tendency had been for some time to localize lesions too closely, and he was pleased to notice that Dr. Amidon had appreciated the error of this method, and had recognized the anatomical variability of the brain.

DR. AMIDON remarked that in fœtal life the brain was first a mere vesicle, with perfectly smooth external surface, with nerves running to it. It was probable that in this smooth surface motor centres were already established. When the fissures began to appear and the sulci to form by foldings in of this outer membrane, the centres might be carried by such foldings sometimes in one direction and sometimes in another. In this way the motor centres, for instance, might be brought either in front or behind, or even at the bottom of the fissure of Rolando. A motor centre, therefore, could not be invariably referred to a particular convolution, but must be indicated by a pretty large area of tissue.

DR. SEGUIN remarked that for some time he had recognized this fact, and had been in the habit of indicating the various centres by rather large areas, which occasionally overlapped each other.

CEREBRAL HEMORRHAGE.

The PRESIDENT (DR. MILES) then showed the brain of a person whose history was as follows: He had been suffering from Bright's disease, and was suddenly taken with right hemiplegia of arm and leg. When first seen by the speaker, immediately after the attack, his mind and speech were perfectly normal. He soon began to recover the use of his arm; and later, in three or four weeks, movement began to return to the leg. Before recovery was complete, however, the patient died. Post-mortem examination showed the existence of a small circumscribed clot, partially absorbed, in the left hemisphere at a point where a section passing through the anterior frontal convolution downward, not quite parallel with the fissure of Rolando, would cut into it. It was a region supposed to be motor. The case was particularly interesting, however, because the clot was very circumscribed; it did not involve the cortex, but only the nerves running to the cortical motor centres, and there was no mental disturbance with it.

DR. E. C. SEGUIN, of New York related two cases, showing

ABNORMAL SEXUAL EMOTIONS.

interesting chiefly in their psychological bearings. A female patient, perfectly well except for attacks of migraine, experienced occasionally the sexual orgasm while sleeping and dreaming; the dreams that excited the orgasm not being at all of an erotic character. On the contrary, the orgasm was generally excited by some emotion of great disappointment. At the climax of such disappointment the orgasm would be experienced. The other patient suffered in a similar way. The cases showed an apparent violation of the law of association of ideas, and a certain variation from the ordinary way in which the orgasm was brought about.

DR. SEGUIN also exhibited sections of a spinal cord in a case of myelitis, these sections showing the

VACUOLES, OR DROPSY CELLS,

which had been referred to in previous discussions. The sections were made from just below the seat of greatest inflammation.

DR. SPITZKA related the case of a patient who had died from a

CYSTIC TUMOR AT THE BASE OF THE BRAIN.

The tumor was oval in shape and about the size of a small orange. Its exact nature could not be determined, but it probably originated from the dura mater. During its growth the patient gradually became blind, paralytic, and insane. Four distinguished neurologists had during life pronounced upon it four different diagnoses, not one of which was correct.

DR. SPITZKA read also the abstract of a more elaborate article upon

THE PEDUNCULAR TRACTS OF THE ANTHROPOID APES.

The object of the paper was to show the homologies that existed between these structures in man and the animals just below him. That field had not previously been worked up, and yet its study revealed greater evidence of structural affinities than the study of the hemispheres. The conclusions reached were that the differences in those tracts between man and the anthropoids was less than that which often existed between the tracts in different men, and that there was in fact a structural identity between the man and the ape next below him.

The discussion of the paper was postponed till the next meeting of the Association.

DR. J. C. SHAW, of Brooklyn, read a paper upon

TENDON-REFLEX IN THE INSANE.

He had examined 130 insane paretics in reference to this symptom. Ten of those had general paralysis, of whom tendon-reflex in 3 was absent. All the cases had a certain ataxia of gait. In the early stages of the general paralysis he had never found the reflex abolished. In 15 other cases of dementia, etc., reflex was absent. Two or three of those were cases of senile insanity. In 29 of the remaining cases reflex was slight; in 76 it was normal.

The conclusion arrived at was, that if tendon reflex was present in paretics, degeneration of the posterior columns might be excluded.

All were agreed that the tendon-reflex was a reflex phenomenon, and we should expect a lesion in the lower part of the cord to account for its absence. Dr. Shaw presented sections of the cord of a patient in whom tendon-reflex was absent, showing such a lesion. Other specimens were shown illustrating the idea that in chronic meningeo-myelitis the changes were apt to

be more marked and more frequently seated in the posterior portion of the cord, in this way abolishing tendon-reflex.

Dr. Spitzka stated that he had at one time made an examination of 40 cases; and his examinations, so far as they went, tended, like those of Dr. Shaw, to show that the abolition of tendon-reflex was an indication of a lesion in the posterior columns of the cord.

The Association then adjourned, to meet on the third Wednesday in June, 1880, in the city of New York.

Correspondence.

ANTISEPTIC TREATMENT OF WOUNDS —CARBOLIC ACID versus ALCOHOL.

To the Editor of The Medical Record.

My Dear Sir:—It is not my intention to enter into a discussion of the scientific question raised by Dr. Perrin in the *Union Médicale*, or even the comparative merits of these methods of wound treatment. Prof. Lister's system is probably so well known to the readers of your valuable journal that it does not require a description here; but as the treatment of wounds with alcohol has never been much employed beyond the borders of France, I will venture to give a brief description of its use and a page of its history.

The usual treatment of wounds with alcohol begins immediately after the ligation of the bleeding vessels, by washing the raw surface with strong commercial alcohol—although some surgeons prefer to dilute it slightly with water—after which it is carefully dried with some soft linen. When a cavity remains after an operation it should be filled up; and, in case of an amputation, after the approximation of the flaps, the stump should be covered with charpie which has been saturated with alcohol. The stump or wounded part is now covered with an impermeable layer of oiled silk or gutta-percha tissue, which is retained in position by a few turns of a roller bandage. This dressing should be changed sufficiently often to preserve the required degree of alcoholic moisture, or, in some cases where the charpie is not too much soiled, it may be sufficient to remove the oiled silk and re-apply the alcohol.

The alcohol treatment is continued so long as there is reason to fear septic infection, and then usually gives place to some other method which is supposed to hasten more rapidly the cure.

This method of wound treatment, like most others, is variously modified to suit particular cases or the fancy of different surgeons.

The following historical sketch from "*Histoire de la Chirurgie Française, par le Docteur Jules Rochard*," may possibly interest those who read your editorial of June 14, 1879, on this subject. Dr. Rochard says: "The interest inspired by the question of disinfectants had not yet died out when the attention of surgeons was called to another method, which recommended itself by its simplicity and its ancient origin. It was no longer a question of the effect of a new product of chemistry, but it was one of the most common agents, and one very generally used in therapeutics. Alcohol has been employed in the treatment of wounds by surgeons of all ages. A. Paré, Dionis, Percey, and Larrey were acquainted with its medicinal virtues, and the laity have never lost sight of them. All the balsams and the vulneraries owe their principal curative properties to alcohol —from the balsam of the centenary plant to the tincture of arnica, which the laity still consider a panacea, and the tincture of camphor, which the works of Raspail have restored to fashion in certain classes of society. It was therefore without surprise that the Academy of Sciences received, in 1859, a memoir in which Batailhe and Guillet reported their experience in the employment of alcohol and alcoholic compounds in surgery.

Lestocquey, of Arras, in 1848, and Prof. Dolbeau, in 1859, had used it before them, but without attaching to it any great importance, and the memoir of Batailhe and Guillet had itself passed almost unperceived, when, in 1863, Nélaton adopted this mode of treatment at the "Hôpital des Cliniques." The results were very satisfactory. The wounds were maintained in a state of strict cleanliness, and preserved their ruby aspect under the cover of a light film of plastic lymph, and cicatrization appeared to progress more rapidly than by any other method. Secondary accidents were almost always averted, and among ninety-seven patients thus treated they reported only two cases of purulent infection and five of erysipelas.

These facts were brought before the public by two internes of their service: Chedevergne, now professor in the medical school of Poitiers, and De Gaulejac. Chedevergne had discovered, however, that the alcohol decomposes pus, removes its odor, and converts it into a greasy albuminous substance. He had seen with the microscope the purulent globules instantly dissolve on contact with the alcohol. Following this publication, the use of alcohol had spread still more rapidly than that of the disinfecting powders. Every one hastened to experiment with a remedy which was always at hand.

Marc Sée, in a memoir read to the Society of Surgery, December 12, 1856, confirmed the facts observed at the "Hôpital des Cliniques," and presented alcohol as a prophylactic in purulent infection. This last conclusion appeared a little hazardous to some of the members of the Society, and especially to Velpeau and Hippolyte Larrey. The fact is, that even at the "Hôpital des Cliniques," and under the eyes of Nélaton, cases of purulent infection had occurred during the course of this treatment, and this was fully demonstrated elsewhere.

We will farther on express more fully our opinion as to the prophylactic value of all these modes of treatment. For the present we will limit ourselves to stating that alcohol, being always within reach, may have its advantages, and that the surgeons who have restored its use have rendered a true service.

Yours very truly,

B. A. Watson.

Jersey City, N. J., June 25, 1879.

POISONING BY RHUS RADICANS.

To the Editor of The Medical Record.

Dear Sir:—The treatment of this annoying affection of the skin was purely empirical until the discovery by Prof. Maisch, of Philadelphia, that the toxic agent in rhus-poisoning was an acid which he called *toxicodendric acid*. Since this discovery of Prof. Maisch's the treatment of this troublesome disease has been more rational. I have used the alkaline bicarbonates and lime-water both locally and internally in this affec-

tion with fair success, but this season have been using a saturated solution of hyposulphite of soda, keeping the affected skin moist with the solution, and in severe cases have given the hyposulphite internally at the same time. By this treatment I have aborted the worst cases in from 24 to 48 hours. I am sure any one giving the hyposulphite a trial in rhus-poisoning will reach the same conclusion that I have—that it is the best among all known remedies for curing this disease, and it fulfils the indications of a good medicine

Respectfully yours,
WM. E. BRANDT, M.D.

HANOVER, INDIANA

HEAT AND COLD TO THE SPINE IN UTERINE INERTIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Monday evening, May 9th, I was called in a case of labor. The woman was stout and robust, æt. 26, and gave the following history: She had previously been twice confined; her first labor had been marked by uterine inertia, and extended, she stated, over a period of thirty-six hours; her second confinement had been of like character, but had been terminated by instrumental aid. I ascertained that slight contractions had occurred about an hour previous to my arrival. By examination I discovered a condition of anteflexion of the uterus; the abdominal wall projecting downwards and forwards. This condition, I was informed, had existed in her previous accouchements. The depressed fundus I raised and supported with a bandage, which, in conjunction with the supine position, seemed to bring the axis of the uterus more into coincidence with the brim. The contractions now became somewhat vigorous and regular, and so continued until the presenting part, the head, became firmly engaged, when complete uterine inertia supervened. The patient now stated that the "same thing" had happened at this time in her former labors.

Frictions over the uterus were now employed, but I could obtain no effect therefrom; a dose of fl. ex. ergot, Squibb's, was immediately rejected by the stomach, while ergotin administered hypodermically elicited no response from the uterus. The forceps now appeared to be the only resource, but I feared that in a case like this of absolute inertia, forceps delivery would be followed by alarming, or even fatal, hemorrhage. I determined to try one other method of awakening the inert organ—that of cold to the spine—and accordingly placed an ice-bag to the lower part of the spine, and awaited developments. The effect was magical. In less than two minutes by the watch a contraction occurred, followed by another and another, and of excellent quality, too; this state of affairs lasted five or ten minutes, when the contractions began to decrease in intensity and frequency, whereupon the ice-bag was removed and a [illegible] cloth wrung out in very hot water substituted for it. Again was the uterus awakened and forced to do its labor, and as soon as it began to flag the cold was applied, etc. Thus, by the alternate use of heat and cold to the spine, the uterus was brought under complete control, and the labor quickly and happily terminated in the birth of a female child weighing nearly twelve pounds.

Respectfully,
A. C. HOFFMAN, M.D.

76 FIFTH STREET, JERSEY CITY, N. J.

Obituary.

WILLIAM K. BROWN, M.D.

DR. WILLIAM K. BROWN died of apoplexy at Narragansett Pier, on Friday evening, July 4, 1879. He was born in Boston, July 8, 1806. He graduated from Dartmouth College in 1829. He subsequently practised medicine in Portland, Me., and in Philadelphia, after which he went to France, where he pursued his studies for two years under the famous French surgeon, Velpeau. He returned to this country and located in Brooklyn in 1841, where he became a successful practitioner. He was one of the oldest resident physicians of that city, was a prominent member of the Kings County Medical Society, and a Fellow of the New York Academy of Medicine. He visited Narragansett Pier hoping that the change would benefit his health, which had been declining since he received an injury some four years ago. He was quite well on the morning of the fourth, and fell a victim of death at 9.30 in the evening, at the ripe age of 73 years.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 29 to July 3, 1879.

WHITE, C. B., Major and Surgeon. When relieved to proceed to New York City and report arrival, by letter, to the Surgeon-General. S. O. 150, C. S., A. G. O.

STERNBERG, GEO. M., Major and Surgeon. Relieved from temporary duty at Washington, D. C., and to report in person to the President of the National Board of Health for duty with the "Havana Commission." S. O. 153, A. G. O., June 30, 1879.

STORROW, S. A., Major and Surgeon, Fort D. A. Russell, Wyo. T. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave the Department. S. O. 54, Dept. of the Platte, June 25, 1879.

JANEWAY, J. H., Major and Surgeon. Assigned to duty temporarily, as Post Surgeon at Fort Columbus, N. Y. H., in addition to his duties at Fort Wood. S. O. 105, Dept. of the East, June 30, 1879.

NOTSON, Wm. M., Major and Surgeon. Relieved from duty with the Army Medical Board, in session in New York City, and assigned to duty as Post Surgeon at Fort Columbus, N. Y. H., relieving Surgeon C. B. White. S. O. 150, C. S., A. G. O.

GIBSON, J. R., Major and Surgeon. Granted leave of absence for four months. S. O. 150, A. G. O., June 26, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. Granted leave of absence for six months. S. O. 150, C. S., A. G. O.

KIMBALL, J. P., Capt. and Asst. Surgeon. Relieved from duty at Fort Columbus, N. Y. H., and assigned to duty as Attending Surgeon at the Headquarters, Military Division of the Atlantic and Dept. of the East. S. O. 105, C. S., Dept. of the East.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 5, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox	Yellow Fever.
June 28, 1879.	0	5	81	3	34	22	12	0
July 5, 1879.	0	4	59	1	32	15	5	0

PHYSICAL EXAMINATION OF SEAMEN.—In order that owners of American vessels may insure the services of healthy seamen, the Marine Hospital Service has announced in a circular that it will grant facilities for the proper physical examination of crews at all ports where medical officers of the Marine Hospital Service are stationed. Such officers will, upon the application of any U. S. Shipping Commissioner, or of the master or owner of any vessel engaged in the coasting trade, examine physically any seaman or seamen, and give a certificate as to their fitness or otherwise, without charge.

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY.—*President*—E. T. Dale, M.D., of Texarkana; *First Vice-President*—W. M. Lawrence, M.D., of Batesville; *Second Vice-President*—J. B. Cummings, M.D., of Forest City; *Third Vice-President*—Albert Dunlap, M.D., of Fort Smith; *Fourth Vice-President*—J. T. Hamilton, M.D., of Pine Bluff; *Secretary*—R. G. Jennings, M.D., of Little Rock; *Assistant Secretary*—L. P. Gibson, M.D., of Little Rock; *Treasurer*—A. L. Breysacher, M.D., of Little Rock; *Librarian*—J. H. Lenow, M.D., of Little Rock.

The next annual session of the Society will be held at Little Rock, on the first Wednesday in May, 1880, beginning at 11 o'clock A.M.

"PUT IT ON AT ONCE." A loose red woollen flannel shirt should be worn next the skin, both summer and winter. It should be "loose," so that its moving upon the skin may keep up a good circulation there; "red," because white flannel fulls up, becomes stiff, and impervious; "woollen," because woollen flannel conveys the perspiration from the *under* to its *outer* surface, where either the cotton shirt absorbs or the air dries it without injury to the body. On account of these properties, sailors wear red woollen flannel even during midsummer in hot countries. Of course, a very thin material should be worn in summer.

GOLD-PLATINUM STAINING IN MICROSCOPY is brought forward and much recommended by Dr. W. R. Weisiger, of Manchester, Va., as a new and excellent staining for demonstrating the epithelium of the lungs and other organs, endothelium of blood-vessels, muscular fibres of arteries, etc. The specimen, being appropriately prepared, is placed in a solution of equal parts, a one per cent. solution of platinum chloride and a one-half per cent. solution of gold chloride for a few minutes, till it becomes a pale straw color. Then put it in a tumblerful of distilled water, acidulated by a few drops of formillic acid, and expose to a bright sunlight. It must be watched, as complete staining usually takes place in less than three hours, even in July, August, and September.—*Trans. Med. Soc. Va.*, 1878.

CHLORAL HYDRATE IN DIPHTHERIA.—Prof. von Rokitansky reports three cases of diphtheria, in which the local application of a fifty per cent. solution of chloral had a most striking effect on the local powers, although the usual remedies had previously proved entirely inefficacious. The solution was painted on every half hour. The pain produced was not very intense, but each application was followed by salivation. After a few applications the membrane could easily be removed, and delicate granulations could be seen in the reddened base. In two of the cases the membranes had disappeared, and the raw surface had granulated in two days, and in the other the process had run its course in four days. As soon as the membranes disappeared a weaker solution was used.—*Allg. med. Cent.-Zeit.*

CREMATION.—I am too firm a believer in the immortality of the soul, to view with patience the inconsistency of those who behave over the dead bodies of their friends as if the immortal part were being laid away in the ground. The more I might love my dead, the less willing I should be to leave the fair form that had once held an immortal spirit to turn into putrid carrion under ground, and breed a myriad of loathsome creatures out of its own rottenness. The attempt to substitute the scientific, poetical, and rational system of cremation has my earnest sympathy. I pray heaven that it may be possible to commit my body or that of any of my beloved to the pure flame, that in one short hour will purge them of dross as gold is refined in the furnace seven times heated.—*Col. Olcott.*

PHYSICIANS FOR SICK CHILDREN.—The Board of Health has divided the city into forty-eight districts, to each of which has been assigned an assistant sanitary inspector, whose duty it is to visit tenement houses, with the view of prescribing for sick children and giving such other advice as will tend to prevent the infantile disorders usually occurring in the heated season. The physicians have been selected from a large number of applicants, are paid for their services, and are expected to perform their duties conscientiously and with satisfaction.

THE BULLETIN OF THE PUBLIC HEALTH.—That portion of the Act of Congress of April 29, 1878, which requires consular officers, or other representatives of the United States at foreign ports, to report the sanitary condition of and the departure of vessels from such ports to the Supervising Surgeon-General of the Marine Hospital Service, and so much of the act as requires that officer to frame rules and regulations, and to execute the said act, and to give notice to Federal and State officers of the approach of infected vessels, and furnish the latter with weekly abstracts of consular sanitary reports, has, by Act of Congress approved June 2, 1879, been repealed.

BOOKS RECEIVED.

SPERMATORRHŒA: Its Causes, Symptoms, Results, and Treatment. Fourth edition, revised. New York: William Wood & Co., 27 Great Jones Street, 1879.

HANDBOOK OF AUSCULTATION AND PERCUSSION. By Herbert C. Clapp, A.M., M.D. Boston: Houghton, Osgood & Co., The Riverside Press Co., 1879.

PARESIS OF THE SYMPATHETIC CENTRES: So-called Malaria; Its Etiology, Pathogenesis, Pathology, and Treatment. By Charles T. Reber, M.D. St. Louis: Geo. O. Rumbold & Co., 1879.

Original Lectures.

ON THE CAUSES OF PUS IN THE URINE, AND ON THEIR DIFFERENTIAL CHARACTERS.

A Clinical Lecture Delivered March 21, 1879, Being the Last Delivered by the Late

CHARLES MURCHISON, M.D., LL.D., F.R.S.,

Physician to, and Special Lecturer on Clinical Medicine at St. Thomas's Hospital, London.

(Reported by A. Clifford Mercer, M.D.)

The characters of the pus found in the urine are different in different cases. Sometimes, soon after micturition, when seen in a test-glass, the urine is in its upper part quite clear, while the pus which has deposited appears as a more or less creamy layer at the bottom. At other times, notwithstanding the urine has been passed for some little time, it is everywhere alike turbid with pus, which remains permanently diffused. The first urine is acid, and contains ordinary pus; the second is alkaline, more or less viscid and gelatinous, and contains altered pus.

Three tests are used to determine the presence or absence of pus in the urine: the heat and nitric acid, the liquor potassæ, and the microscope tests. The first, the ordinary test for albumen, produces in the first or acid urine a greater or less opacity in the clear portion, and a much more marked one in the creamy layer. A deposit of pus is at the same time distinguished from one of pale lithates, both of which appear alike to the naked eye, since the latter would be cleared up by this test. If the second or alkaline urine be heated, it becomes a little more opaque (phosphates being precipitated), when, if nitric acid be added, it becomes again a little clearer (the phosphates being again dissolved); so that the two leave its turbidity much as it was before, the pus remaining unaltered. If liquor potassæ be added to the acid urine, the pus becomes viscid and gelatinous, "ropy." (If the precipitate be phosphates instead of pus, this change does not take place.) In the alkaline urine this change has already been effected. With the microscope, which gives the best evidence, if pus be present, pus-corpuscles are seen, identical in appearance with white blood-corpuscles. How then can they be distinguished, you ask. They cannot be; they are, in fact, only white blood-corpuscles in the wrong place. If treated with a drop or two of acetic acid, the granular contents in each disappears, and in its place a nucleus, often three-lobed, is seen.

The pus in pyuria comes from five sources: I. The female genital organs; II. The urethra; III. The bladder; IV. The kidneys and ureters; V. Abscesses which burst into the genito-urinary channels.

I. *If the pus be from the female genital organs*, it is due to one or more of the principal causes: A, acute and chronic vaginitis (vaginal leucorrhœa); B, uterine leucorrhœa; C, ulceration of the cervix uteri; D, cancer of the uterus; E, lochial discharge; F, an abscess, as one due to pelvic cellulitis, bursting into the genital organs. These are distinguished from other causes by: 1, the clinical history and the symptoms of one or more of these affections; 2, the microscopical examination of the urine, in which may be found pavement-epithelium from the vagina, cylindrical epithelium from the uterus, or cancer structure; 3, a purulent discharge independent of micturition; 4, the absence of pus from the urine when drawn off directly from the bladder by a catheter.

II. *If the pus be from the urethra*, having special reference to the male, most of it comes away just before the urine in micturition; it is also discharged in the intervals between the micturitions, and the urine is usually acid. The causes are: A, Gonorrhœa; B, an abscess of the prostate; C, an abscess of Cowper's glands, or of the perineum opening into the urethra. A. *Gonorrhœa* is distinguished by: 1, great pain and burning in the urethra during micturition; 2, redness, swelling, itching, and burning at the meatus; 3, the appearance of pus at the meatus when the glans penis is gently pressed between the thumb and fingers. B. *An abscess of the prostate* is distinguished by: 1, pain which is present not so much during as just at the end of micturition; 2, swelling and tenderness of the prostate discoverable by rectal examination; 3, the condition of the prostate, which enables the physician by squeezing it to force pus and microscopic calculi * along the urethra and out of the meatus. According to Sir Henry Thompson, an abscess of the prostate may give rise to inflammation extending back into the neck of the bladder, accompanied by symptoms resembling those of stone, such as great frequency of micturition, pain following micturition, and referred to near the lower end of the penis, a little blood occasionally with the last drops of urine, an alkaline reaction of the urine which is turbid with altered pus, an exaggeration of all these symptoms when the patient is exercising or moving about. Such a condition is distinguished from stone by: a, the absence of any history of the descent of a calculus; b, more or less discharge from the urethra during the intervals between micturitions, but perhaps appearing only on squeezing the glans penis or urethra; c, often a history of gonorrhœa; d, swelling and tenderness of the prostate; e, the absence of a stone in the bladder, determined by the sound.

C. *An abscess in Cowper's glands or the perineum* is detected by local examination.

III. *If the pus be from the bladder*, most of it comes away at the end of micturition; it is altered, viscid, and like "ropy mucus," due to the alkaline condition of the urine; the urine is usually more or less ammoniacal, fetid, and deposits crystals of triple phosphates; there is more or less pain in the region of the bladder over the pubic bones, which is increased according to the disease present, sometimes before and sometimes after micturition, and which is often accompanied with tenderness in the same region, especially when the bladder is full of urine; and there is increased frequency of micturition. The causes are: A, cystitis; B, calculus; C, new growth. A. *Simple cystitis*, independent of calculus or new growth, is distinguished by: 1, pain, which is severest just before micturition when the bladder is full, and which is relieved by emptying the bladder; 2, hæmaturia only in rare cases, excepting when the disease is unusually acute or the result of an injury; 3, the symptoms of the primary trouble of which cystitis is really only a symptom, such as, a, the retention of urine by a stricture, an enlarged prostate, by a stone in old people, by fevers paralyzing the muscular coats of the bladder, or by paraplegia; b, gonorrhœa extending backward to the bladder; c, poisoning by cantharides, or by morbid states of the blood, as occurs in gout (gout being the cause of most "idiopathic" cases); 4, the absence of symptoms specially characteristic of stone or new growth.

B. *Calculus* is distinguished by the symptoms of the accompanying cystitis, and by: 1, pain, which is severest at the end of micturition and for some time after (because then for a time, when the bladder is empty, the stone comes in contact with the sensitive mucous lining), and which is more distressing than the pain in simple cystitis, and referred to the glans penis about one inch from the meatus; 2, hæmaturia very commonly in small quantity, so small often as only to be detected by the microscope, which is increased by violent exercise; 3, increased frequency of micturition, which is more noticeable during the day when the patient is moving about than it is during the night (the reverse being true in prostatic stricture); 4, sometimes a sudden stoppage in micturition due to the stone acting as a ball-valve in the bladder opening of the urethra; 5, in a great number of cases a previous history of nephritic colic, a severe pain shooting from one kidney down to the testicle or penis, retraction of the testicle, attended with rigors and vomiting, nausea, pallor, a quick, feeble pulse, intermittent pyrexia, and sometimes swelling of the testicle, all suddenly ceasing after the passage of the stone into the bladder; 6, the passing of a stone, red sand, or gravel in the urine; 7, the presence of a stone determined by a sound.

C. *New growths* originating in the bladder, or penetrating it from without, either exciting secondary cystitis or ulcerating, are distinguished by: 1, paroxysms of severe lancinating pain quite independent of micturition (in villous disease, however, there need be no pain if the urethra be not blocked by a blood-clot); 2, hæmaturia, irrespective of exercise, which is irregular, coming on at long intervals, or being very persistent, and is sometimes very copious, especially in villous disease, in which it is dangerously so; 3, the presence in the pus of epithelial cancer-cells, or in villous disease, villous processes; 4, cachexia and emaciation; 5, the absence of stricture, prostatic disease, and other causes of retention; 6, possibly a hard, irregular, tender tumor, which can be felt by the rectum or vagina; 7, possibly enlarged glands in the groin, or the evidence of new growths in distant parts of the body; 8, in the absence of an appreciable tumor, and the presence of symptoms resembling those of stone, the evidence furnished by the sound, which may detect a thickening of the bladder wall, but not the presence of a stone.

IV. *If the pus be from the kidneys or the ureters*, it is at first uniformly mixed with the urine, but, after a little, settles as a creamy layer, leaving the urine above clear. The urine is acid, as a rule, but may become alkaline by standing too long after micturition, or be alkaline from the first if pus comes from the bladder as well as from the ureter, and, when alkaline, is turbid with altered pus, which does not settle. There is pain and tenderness over the kidney and about the crest of the ilium, which extends down to the bladder and penis (pain alone over the kidney may be a symptom of bladder disease only; but tenderness there is very significant). A tumor in the kidney region may be sometimes detected, and should in all cases be looked for. Increased frequency of micturition may be present, but without pain in the bladder, either before or after micturition. The causes are: A. Certain rare cases of acute nephritis. B. Calculous pyelitis. C. Tubercular pyelitis. D. Pyelitis from obstruction of the urinary passages.

A. *Certain rare cases of acute nephritis.*—These are such as sometimes supervene in cases of carbuncle, boils, erysipelas, acute fevers, parturition, or pyæmia, and also occur in rare instances in which gonorrhœa spreads upward as acute pyelitis as well as acute nephritis, and are recognized by: 1, the slight quantity of pus; 2, the degenerate products of nephritis, such as epithelial pus or hyaline casts, etc.; 3, the previous history of smokiness or other evidence in the urine of the existence of acute nephritis; 4, a quantity of albumen much too great to be accounted for by the amount of liquor puris; 5, general dropsy not uncommonly; 6, uremic symptoms possibly, such as headache, retching, drowsiness, coma, or convulsions; 7, the absence of any tumor to be detected externally; 8, a dry skin; 9, the previous history of one of the above causes. B. *Calculous pyelitis* is distinguished by: 1, a previous history, though not always, of nephralgia, a pain extending from the kidney to the testicle, penis, vagina, or thigh, attended with rigors, nausea, vomiting, frequent micturition, hæmaturia, retraction or swelling of the testicle, pallor, a quick, feeble pulse, and some fever, perhaps; 2, pain and tenderness, or simply a burning or aching, not necessarily in all cases, however, more or less constant in the region of one kidney or both, which is increased by much exercise and fatigue, or may be present only during fatigue; 3, hæmaturia, especially when the calculus is composed of oxalate of calcium, and in any other case after violent exercise, while microscopic blood is usually present at other times; 4, a variation in the quantity of pus from day to day; 5, the absence of casts; 6, crystals of uric acid, or, not uncommonly, of oxalate of calcium; 7, a tumor in certain cases, not in all, more or less painful, in the kidney region, which enlarges when the quantity of pus in the urine diminishes, and becomes smaller, or disappears, when the quantity suddenly increases; 8, attacks of intermitting pyrexia, occasionally ushered in by rigors, and followed by profuse sweating, which are most severe when the tumor is largest; 9, the absence of dropsy and other signs of acute nephritis, though the patient may ultimately die of uræmia, due to the wasting of the secreting tissue of the kidney; 10, its duration, which may be a fair lifetime (one case lasted forty years), or may end favorably, by the stone passing into the bladder, or becoming encysted.

C. *Tubercular pyelitis* is distinguished by: 1, the absence of any history of renal colic; 2, a constant, dull pain in the back, over one kidney or both, with exacerbations when the ureter becomes blocked, and which is accompanied with tenderness over only one kidney, in nine cases out of ten; 3, hæmaturia not uncommonly, which is slight, and may be the earliest symptom, and then disappear; 4, the unvarying, or steadily increasing, quantity of pus in the urine; 5, the absence of casts from the urine, and the presence often of amorphous granular matter insoluble in acetic acid, of particles of caseous matter, or fibres of connective or elastic tissue; 6, the absence of crystals; 7, the formation, if the ureter be blocked, of a tumor, which may point externally, or even stretch across the middle line (of sixteen cases, a tumor formed in seven); 8, persistent pyrexia, usually intermittent and hectic, with night-sweats; 9, as a rule, persistent and rapid emaciation, but the patient may even gain flesh under treatment; 10, signs of tubercle in the lungs, bowels, testes, prostate, vertebræ, or elsewhere; 11, the fact that it occurs more frequently in males than in females; 12, the absence of dropsy and any tendency to uræmia, the patient dying from exhaustion; 13, the rapid progress of the disease, which rarely lasts two years.

D. *Pyelitis from obstruction of the urinary passages* is distinguished by: 1, the history and the symptoms of a primary obstructive disease, as cancer of the uterus,

stricture, enlarged prostate, hydatids in the pelvis, etc.; 2, constant aching pain and tenderness in the back, over one kidney or both; 3, copious urine of low specific gravity, with little urea or albumen; 4, a varying quantity of pus in the urine, possibly with casts, consisting of pus-cells from small abscesses in the substance of the kidney, or with an alkaline reaction due to the concurrent cystitis; 5, very commonly paroxysms of intermittent pyrexia; 6, the great tendency to headache and uremic symptoms.

V. *If the pus be from an abscess bursting into the urinary passages*, its places of origin may be very various, some of them being: A. In rare cases, empyema. B. A tropical abscess of the liver. C. A psoas abscess. D. A prostatic abscess. E. Pelvic cellulitis after or independent of parturition. The urine is usually acid, and the pus falls as a creamy layer. Further, the diagnosis depends upon: 1, the clinical history previous to the pyuria; and, 2, the concomitant symptoms and signs of the primary disease.

Original Communications.

REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM IN CONJUNCTION WITH FREE SUPPORTING DIET, AS MEANS OF DEFENDING THE SYSTEM AGAINST THE DANGERS OF THE OPERATION—ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK

When Prof. Schroeder, a little more than a year ago, announced that under the antiseptic method of Mr. Lister he had just completed a series of fifty ovariotomies, with the result of forty cures and ten deaths (80 per cent.), and that thirty-three of these cases, with a loss of only one, were treated in the Berlin Lying-in Hospital—notoriously bad in all its sanitary appointments—there was a feeling of general satisfaction among gynæcologists as to the value of antiseptic treatment, and a disposition manifested more than ever before to give it a fair trial. It is true that just as good, and even better, results than these had been secured in Great Britain, especially in the practice of Mr. Keith, before the general employment there of antiseptics; but in Germany nothing entitled to comparison with these results of Prof. Schroeder had previously been witnessed. Dr. Oldshausen, a few months later, in a letter to Mr. Spencer Wells, stated that the mortality of ovariotomy in Germany, before the adoption of antiseptics in the practice of Esmarch, Hegar, Schroeder and himself, was thirty-three deaths out of sixty-five cases, and since the adoption of antiseptics, thirty-three deaths out of one hundred and fifty-five cases. The exultation, therefore, over the unprecedented success of Prof. Schroeder was not surprising. In his series of fifty cases he had at one time twenty-three consecutive successes, which was also considered very extraordinary for German practice. But Mr. Wells, in England, long before this, without antiseptics, had a similar series of twenty-seven successful operations.

Satisfactory, however, as were the above results of ovariotomy in Germany under the antiseptic method of Mr. Lister, they have since been so far eclipsed in brilliancy in Scotland by Mr. Keith, through the same protective method, as to be almost lost sight of. Mr. Keith states (*British Med. Jour.*, Oct. 19, 1878) that out of fifty cases treated according to the antiseptic method forty-eight were cured (96 per cent.); that the two deaths occurred in the first eight cases, thus showing the unprecedented run of forty-two successive successes, an achievement gynæcologists for all time to come might be well content to emulate.

His convictions on the soundness of the theory upon which the antiseptic treatment is based, and the emphasis which he gives to the above results, Mr. Keith sets forth in the following significant words: "Since 1876 every operation has been performed with all Mr. Lister's care, under the carbolic acid cloud, and I shall never go back to the old way."

This triumph, therefore, of Mr. Keith, and his recognition of the value of the antiseptic method, may be accepted, I think, as conclusive evidence of the entire correctness of the practice. But in doing this, the fact should not be lost sight of that Mr. Keith still insists upon the greatest care in performing the operation, and the closest attention afterward to the details of surgical treatment. He says that, at the time of commencing antiseptics, in 1876, he had reduced his mortality to about ten per cent. through the improved sanitary condition of his top-flat hospital, and his employment of the actual cautery with the drainage-tube. Yet it is evident enough, from the importance attached to the two factors previously named, that he believed they contributed no small share to the result claimed. While he is willing, with the increased advantages of the antiseptic method before him, to exchange the actual cautery for the ligature, and to dispense with the drainage-tube, he still insists upon the importance of effectually controlling hemorrhage, and of taking time to wipe out thoroughly the peritoneal cavity. It is, as he further remarks, mainly in the class of adherent tumors, accompanied by a feeble state of health and too long delay of the operation, that the greatest difficulties in treatment are experienced, and to overcome which something in addition to antiseptics is still needed to insure further success in this direction.

Now, Mr. Keith having remarked that previous to his adoption of the antiseptic method of Mr. Lister, in 1876, he had reduced his mortality to ten per cent., it is to be inferred that further improvement of the operation in his hands must have for its object yet the diminution of the mortality of this seemingly small class of cases. The question then may be asked, how much has been gained already by the employment alone of antiseptics? According to the recent experience of Mr. Keith the answer is about six per cent. Therefore, if it be true his aggregate success with antiseptics is now ninety-six per cent., then there would seem to be but little need of any one else attempting to further improve the operation, since it is hardly probable that the actual mortality can ever be brought within narrower limits than four per cent.

Such is truly a very encouraging picture of the advanced state of our knowledge and practice with regard to the operation of ovariotomy. But Mr. Keith's success is exceptional, as no one for a moment, I imagine, will question. No other surgeon has attained anything like it in a large run of cases. I doubt whether at the present moment the average mortality of this operation in the hands of all surgeons is below 20 per cent. That the Lister method has contributed a large share toward bringing about

even this gratifying result there can be no doubt, and it is from a better and more general understanding of this and other important principles of practice yet to be mentioned that further diminution of our general mortality may be expected to follow.

It is, therefore, the general mortality of 20 per cent., instead of 4 per cent., as shown by the individual death-rate of Mr. Keith, that is to be lessened by improved methods of treatment, and the question now is, how can this be best attained? Death results, in about seven-eighths of all cases, from shock or collapse, hemorrhage, exhaustion, peritonitis, and septic intoxication, pyæmia, and to a large extent within the first three or four days. The late Dr. Peaslee, in speaking of the causes of death after the operation of ovariotomy, says: "Thus shock and collapse, when fatal, prove so in more than one-half of the cases within forty-eight hours; and in more than two-thirds, within ninety-six hours. About one-half of those who die of hemorrhage perish within twenty-four hours, and seven-eighths within seventy-two hours. Acute peritonitis proves fatal in twelve to twenty-four hours, and on to the eighth day; nearly one-fourth of the whole number dying on the third day alone, and nearly two-thirds of the whole within the first seventy-two hours. Asthenic peritonitis proves fatal from the ninth up to the twenty-first day, or even later."

Now, what are the conditions of the system before and after the operation of ovariotomy that favors death from the above causes? And what is the proper plan of treatment to curtail or eliminate liability to the same?

Conditions of the system.—With regard to the pathology of morbid growths of the ovaries, whether cystic or solid, benign or malignant, it is by no means clear and satisfactory. As to the views generally entertained upon the subject with regard to associated conditions of the system in different stages of the development of these growths, they must undergo, it seems to me, a very considerable modification before we can expect to derive the fullest benefits from constitutional and surgical treatments. But I do not propose here to discuss these points, but simply to state, in the most concise manner possible, my own convictions, which may or may not be correct. They are presented in the following epitome:

First. That the conditions of the system favoring the idiopathic development of ovarian growths expose both ovaries alike to attack, but that oftentimes these growths are induced without such previous conditions of the system, through dislocation or imprisonment of one or the other, or of both ovaries, in a state of hyperæmia or anæmia.

Second. That the morbid processes underlying the development of ovarian growths, in whatsoever way produced, soon lead to disturbance of innervation and nutrition of the entire system, and thus cause gradual impoverishment of the blood—general anæmia.

Third. That the general anæmia arising from the development of ovarian growths, call it, if you please, simple idiopathic or pernicious, is always progressive, and that the stages of growth and development ordinarily recognized only represent so many degrees of advancement toward a fatal termination, which certainly comes sooner or later, unless checked by the resources of surgical art.

Fourth. That the general anæmia accompanying ovarian growths is usually attended in the earlier stages with a well-preserved outward appearance of the body; but that such adipose symmetry—*embonpoint*—associated as it is with deficiency of red blood-globules, betokens discrasia rather than robust health.

Fifth. That the general anæmia of ovarian growths, when attended with emaciation, as in the latter stages, is pernicious in the highest degree, owing to the rapidly increasing abstraction of important elements from the blood, and to other functional disturbances arising from mechanical pressure.

Sixth. That inflammatory affections, whether of idiopathic or traumatic origin, occurring in any stage of the general anæmia attending ovarian growths, tend always to low and persistent forms; and that the attending fever, be it due or not to the introduction of a pyrogenic, phlogogenic, pyogenic, or septigenic material into the blood, is almost, if not always, in a corresponding degree asthenic in type.

Seventh. The seemingly necessary corollary from the foregoing propositions is, that the surgeon should strive to counteract the evil tendencies of the general anæmia of ovarian growths; to husband and strengthen the powers of the system during its progress; to remove the morbid growth, as experience justifies, before or as soon after the emaciation appears, as the diagnosis can be determined; to avoid all depletory or depressing influences; and to treat the accompanying inflammation, whether acute or chronic, through all its stages, by continuous and persistent support of the vital forces, leaving the attending fever to take care of itself.

Proper plan of treatment.—The object of any plan of treatment, before and after the operation of ovariotomy, is to prevent death mainly from pernicious anæmia, shock or collapse, hemorrhage, exhaustion, peritonitis, septic intoxication, and pyæmia. Shall this be done by means of the ordinary antiphlogistic measures, including blood-letting, depressants, refrigeration, low diet, etc.? or shall it be by an opposite course, and by invigorating the system, restoring the lost elements of the blood, and maintaining as nearly as possible a health standard of the vital forces?

1. *Antiphlogistic treatment.*—With regard to antiphlogistic measures to control peritonitis, the great bugbear of ovariotomy, it is usually insisted upon that they should be employed early and vigorously, because by far the largest proportion of the fatal cases terminate within the first three or four days after the operation. So also must they be employed, if employed at all, to meet any of the other emergencies before enumerated, which allow but little time for hesitation. It is very easy for writers upon the subject to say that when peritonitis or septicæmia shows itself within the first few days after ovariotomy, with a pulse varying from 120 to 140, and a temperature from 102° to 104° F., that the patient should be watched and the threatening progress energetically combated by means of general bloodletting, leeching, opiates, fomentations, aconite, veratrum viride, ice-caps to the head, and ice-bags and cold water affusions over the abdomen. But what has been the success obtained by this plan of treatment? Judging from the experience of those who have given it a fair trial, there is for the future no great encouragement, I conceive, to adhere to it.

It is not my purpose here to enter upon a study of the various measures above enumerated. I shall speak only of the use of ice and cold water affusions, as means of controlling high temperature and lowering the pulse. As viewed from my standpoint, I see no great objection to the cautious application of either ice or cold water affusions to the head where the indications justify it, but as applied to the abdo-

men the question is quite another thing. I seriously object to the application of ice or cold water affusions to the abdomen, either as a part of the so-called antiphlogistic plan of treatment, or of the supporting plan of treatment, since their depressing effect upon the heart's action is oftentimes so great and uncontrollable as to immediately endanger life, or remotely to lead to suppuration within the peritoneal cavity, pyæmia, pleuro-pneumonia, and perhaps other complications. They unquestionably reduce the temperature, and lower the frequency of the pulse to almost any desired extent for the time being, but the vital forces are weakened and the integrity of remote organs is impaired by their use, especially when long continued. Therefore, notwithstanding the warm attestations as to the value of these resources by English and German ovariotomists, I feel constrained to regard them as more powerful for evil than for good.

In our own country these expedients have also been resorted to with more or less flattering commendations. Dr. T. G. Thomas, whose large experience entitles his opinion to much weight, recommends cold water affusions over the abdomen, applying them at a temperature varying from sixty to ninety degrees, with the patient lying upon what is known here as Kibbe's cot. In a paper read by him before the New York Academy of Medicine, entitled: "The Most Effectual Method for Controlling the High Temperature occurring after Ovariotomy" (New York *Med. Journal*, August, 1878), he contrasts cold affusions with large doses of quinine and salicylic acid, and its salts, and expresses his convictions of the superiority of the former in the strongest terms.

Dr. Thomas assumes that prolonged high temperature after the operation of ovariotomy, occurring in whatsoever way, leads to disorganization of the blood, and serious impairments, or tissue changes in the cardiac and nervous centres. These results, he thinks, can be largely prevented by resorting to cold-water affusions over the abdomen, which keep the temperature and pulse from the beginning below 100° F. and 110 respectively, a result which can only be partially obtained, if at all, with large doses of quinine, or the salts of salicylic acid. As to the end sought to be attained, he says: "In adopting this plan of treatment after ovariotomy, and as I have in several cases done after parturition, I did not propose by it to check peritonitis or to cut short septicæmia, the great evils to be feared at the time. My object was to rob these diseases of one of their chief weapons of destruction—hyperpyrexia—and thus to resist the primary assault in the hope of bearing up against a more prolonged, though less violent, siege."

Dr. Thomas reports, in support of his views, eight cases, one of which was peritonitis resulting from a cause other than that of ovariotomy. Out of this number six recovered. Of the two cases terminating fatally, there was in one, as revealed by the autopsy, "internal peritonitis, with several points of localized gangrene of the intestine;" and, in the other, "evidences of peritonitis, pleurisy with effusion, and pneumothorax," which are assigned as the immediate causes of death—on the twenty-sixth and fourteenth days respectively. Dr. Thomas also refers incidentally to two other cases of ovariotomy, occurring some time before, which terminated fatally under the same plan of treatment; but the particulars of those cases he does not give, further than to say they illustrate "the lessons taught by the two first recited, namely: uniform capacity of this method of refrigeration for maintaining a nearly normal temperature, even while a fatal disorder, one of the most striking characteristics of which is hyperpyrexia, still steadily marches on to a fatal issue."

Of the eighth reported case, he speaks of the depressing effect of this treatment upon the heart's action, as shown by the irregularity and intermittency of the pulse, with coldness and blueness of the hands. The patient, however, a girl sixteen years old, showed no other signs of being unfavorably affected by the douching, and made a good recovery.

With regard to nourishment, in connection with cold affusion over the abdomen, Dr. Thomas only speaks of it incidentally in cases one and seven as being by enemata, twelve and four days respectively. In the former he employed milk by intra-venous injection four times, but to no effect further than to assist in sustaining life, as was supposed, to the twenty-sixth day. From this it is to be inferred that low diet was the rule for a few days at least, since it usually forms an important feature in the antiphlogistic plan of treatment to which cold affusion properly belongs. Of the views upon low diet entertained by some of the highest authorities who have written upon the subject, the late Dr. E. R. Peaslee gives a faithful reflex in the following words:

"Very little nourishment is to be given the first seventy-two hours. I prefer to continue the milk porridge used before the operation. I. B. Brown gives barley-water, or iced milk, or weak broths, and sometimes also a mutton-chop on the third day. Mr. Wells and Dr. Keith give barley-water mainly, but the latter gives no food at all till after flatus passes *per rectum*—only a little cold water, or a few sips of very hot water. He gives soup and brandy enemas in the feeblest cases. Dr. Roberts advises as little food as possible the first forty-eight hours to obviate sickness and vomiting. No solid food is to be given, as Dr. Clay judiciously advises, until asked for by the patient. If the stomach is irritable, the nourishment, as well as the opiate, is to be administered per rectum, in which case beef-tea is a good substitute for the milk porridge."

Now, if the experience of Dr. Thomas with cold water affusions over the abdomen, based upon the results of the eight cases reported in his interesting paper, proves anything, it is the full recognition by him of the great value of the method from the following considerations:

1. That sulphate of quinine and the salts of salicylic acid, if antipyretic at all, are only so slightly, so as not to entitle them to any confidence in the treatment of peritonitis and septicæmia resulting from ovariotomy.

2. That cold-water affusion over the abdomen is antipyretic in the highest degree, and deserves to take precedence over all other known methods as a reliable means of controlling the peritonitis and septicæmia, on account of the simplicity of the method and the ease with which it can be carried out upon Kibbe's cot.

3. That the dangers of cold-water affusions over the abdomen, if there be any incident to the practice, are so slight as only to require ordinary precautions for their avoidance, and that they should not stand in the way of the employment of so valuable a method to control the hyperpyrexia of peritonitis and septicæmia.

4. That cold-water affusions over the abdomen, while they are not directly curative in themselves of peritonitis and septicæmia, yet are indirectly so to a higher degree than any other known agent, by preventing disorganization of the blood and serious impairment of the vital functions.

How far these views of Dr. Thomas upon cold-water affusions as an antipyretic are supported, the statistics of his eight reported cases must answer. A mortality of twenty-five per cent., as shown by this exhibit, is certainly not promising when compared with Mr. Keith's rate of ten per cent., secured without either antiseptics or cold-water affusions. I do not know what Dr. Thomas's further experience in the use of cold affusions has been, nor do I know how often it has been employed by other operators since his interesting paper was published. I have employed the method only once, which was in the Woman's Hospital several months previous to the time he read his paper before the Academy of Medicine. From the little experience which a single case gave me, I was convinced that the practice was not only heroic but dangerous, and opposed to sound principles of surgery. The report of the case (1) is appended to these remarks, which was one of double ovariotomy. The after-treatment consisted in free nourishment by the mouth from the beginning, and of opium by the rectum to control pain. At the end of thirty-six hours the pulse had reached 120 and the temperature 103½° F. Associated with these indications there were tympanitis, tenderness over the entire abdomen, thirst, and dryness of skin. Under these circumstances the patient was put upon Kibbe's cot and douching of the abdomen with water at 67° F. commenced. At the end of seventy-one hours, when eight douches, varying from 65° to 75° F., had been given, there was no abatement of the acuteness and intensity of the peritonitis. Pulse 126 and very feeble, temperature 104¼° F. Beginning now to lose confidence in the method, and necessarily feeling anxious for the safety of my patient, I supplemented the opium per rectum with eight grains of sulphate of quinine, to be repeated every six hours. The process of douching, with no abatement, however, was continued under the direction of the house-surgeon, Dr. J. L. Perry, whose care and attention were unremitting. At the end of eighty hours, when sixteen douches in all had been given, the last eight within eight hours, the temperature stood at 103¼° F., just one-quarter of a degree less than at the beginning. A few hours after the last douche, at 6½ o'clock A.M., I made my visit, and found the patient in a condition of collapse, as I supposed. She seemed to be chilled through, so to speak; was cyanosed and almost pulseless. The application, however, of cans of hot water about the chest and extremities, and the free administration of whiskey, were soon followed by reaction and disappearance of the above threatening symptoms.

The cold affusion was discontinued, and in its stead increased nourishment and stimulation by the mouth were ordered, in connection with quinine and opium by the rectum. At the end of ninety-six hours, when the patient had taken forty grains of quinine, thorough *cinchonism* manifested itself, and her pulse was 104 and temperature 100¾° F. From this time on the temperature rose but little above 101° F., and this only for a few days. Her convalescence, however, was slow, lasting nearly three weeks, owing, no doubt, to inflammatory products shut up in the peritoneal cavity, as the result, I fully believe, of the depressing influence produced upon the vital forces for so long a time by the cold affusion, and my failure to employ quinine at the outset of the after-treatment. But my treatment of this case was no more heroic than that adopted in the eight cases reported by Dr. Thomas. The difference in result being simply that my patient narrowly escaped a fatal issue from exhaustion and depression of the heart's action without permanent reduction of temperature at the end of the fourth day; while one of his, after having the temperature for twelve days kept at a point below 100° F., discharged through the abdominal incision more than a pint of pus on the fourteenth day, and finally died on the twenty-sixth day, leaving evidences of extensive peritonitis and gangrene of the bowel; and the other, after the temperature had been lowered from 104° to about 101° F., suffered from an attack of acute pleuritis, with effusion on the fifth day. The increased temperature of the latter complication was treated by continued douching until the eighth day after the operation, when recovery from its effects was pronounced. The case, however, terminated fatally on the fourteenth day, showing at the autopsy, as before mentioned, peritonitis and pleuropneumonia, with effusion.

May not these embarrassing complications encountered by Dr. Thomas and myself be the legitimate fruits of the employment of cold-water affusions over the abdomen? And may we not in attempting, with so powerful an agent, to disarm peritonitis and septicæmia of their dire phenomena—high pulse and high temperature—on the one hand, directly favor or produce, on the other hand, the identical complications and lesions mentioned? In short, may we not, in thus attempting to steer clear of Scylla, run squarely against Charybdis? These are my convictions, and I shall not rest content upon the subject until further statistics open up a more encouraging prospect than that viewed from my present standpoint.

2. *Preparatory and supporting treatment.*—Next let us turn our attention to the plan of preparing and supporting the system as a means of meeting and controlling the principal dangers of ovariotomy previously enumerated. This plan of treatment, according to my understanding of it, embraces all suitable articles of food which can be assimilated when introduced into the mouth and the rectum. Any form of stimulant which the system may require or tolerate, and any kind of medicine which special indications may demand. The plan properly resolves itself into two stages: first, before the operation; and second, after the operation.

1. *Before the operation.*—This stage of the treatment may be supposed to be coextensive with the existence of the morbid growth, but for present purposes it is limited to the week immediately preceding the day set for the operation. During this time the secretions of the body should be regulated as far as practicable, the bowels kept in a soluble condition, the circulation equalized, pain or nervous irritation controlled, the system nourished, and the blood infused, so to speak, with new life.

The means for accomplishing all these ends readily suggest themselves. A mild cathartic every day, or every other day, and an active one the night before the operation; daily tepid baths followed by rubbing the body with emollients, of which vaseline answers an admirable purpose; anodynes or bromide of potash; easily digested and nourishing food of any kind, with wine, ale, porter, brandy, etc., as may be desired or found useful; tonics, of which the tincture of iron, salicin, and quinine are the best.

With regard to the last named medicines, the iron and salicin are given together three times a day in doses of 15 drops of the former and 15–20 grains of the latter. When this form of iron causes headache, as happens sometimes, or otherwise is not borne, then substitute iron by hydrogen or carbonate of iron, or give salicin alone. The quinine is reserved for the last, when 15 grains are given the night before the

operation, and 10, with a grain of opium, the following morning, after the lower bowel has been emptied by a lavement of warm water containing a small quantity of castile soap and common salt.

2. *After the Operation.*—The stage of active treatment immediately after the operation is supposed to continue until all dangers are passed—one week, more or less, according to circumstances. The faithfulness with which it is carried out rests not only in the convictions of the surgeon as to what is absolutely required, but in the ceaseless vigilance and assiduity of the nurses intrusted with his directions.

First, the remedial agents to be employed: These are principally quinine, opium, brandy, whiskey, champagne, and any other forms of medicine required or best suited to the individual case. After the patient has recovered from the anæsthetic, all sources of annoyance or direct irritation, of whatsoever nature, are to be avoided as far as possible, and none among them I conceive is more worrying than that of the hypodermic syringe. The use of this instrument I would therefore restrict to the narrowest limits, trusting to other modes equally efficacious for introducing morphine into the system. But can it be said that the stomach affords this facility to the desired extent? Certainly not. But this and the rectum together unquestionably do to a very high degree, not only as regards medicines, but also articles of food. When both of these fail, and the patient is *in extremis*, then the hypodermic syringe may play an important part in introducing into the system not only morphia, but quinine, brandy, or ether. The form of anodyne which I prefer to all others is Squibb's compound liquor of opium. It is more uniform and reliable in its strength than laudanum, and for that reason, if no other, is more valuable. The object to be attained by this preparation of opium is not only the control of pain, but the lessening of general reflex nervous irritation. It also antagonizes the unpleasant effects of quinine upon the brain, thus giving to the latter greater potency in controlling not only cardiac and pulmonic action, but the processes of disassimilation or tissue changes upon which depend, it is believed, the excessive body-heat. My rule now is to administer per rectum, as soon as the patient is removed from the operating-table to her bed, one drachm of the above preparation of opium with ten grains of sulph. of quinine in half an ounce of acidulated water. This will usually be found sufficient to lull the attending pain after the effects of the anæsthetic are passed. The dose is afterward reduced to half a drachm with the same quantity of quinine, and repeated every six hours. Should severe pains develop in the intervals, the hypodermic use of six to eight minims of Magendie's sol. of morphine is allowed. According to my experience, such emergencies arise only occasionally, and often not at all, in the entire after-treatment. This quantity of opium, about four and a half grains in the twenty-four hours, keeps the patient in a quiet, drowsy state, ready to take nourishment per orem and rectum at almost any moment, and again to relapse into the same somnolent state, seemingly without disturbance. It is seldom necessary to increase the dose of quinine mentioned. This quantity, forty grains in the twenty-four hours, with the twenty-five grains given the night and morning preceding the operation, will rarely fail to produce its specific effect within thirty-six or forty-eight hours, just at the time it is needed to infuse the blood with life-giving and life-saving qualities, and thus control or moderate the rise of temperature. I have seen as small a quantity as thirty-two grains of quinine, given in this way, followed by thorough cinchonism, with almost immediate reduction of both pulse and temperature; but usually double or triple this quantity will be required to produce the desired effect. I am satisfied that the reason why those who have tried and condemned quinine as useless in controlling hyperpyrexia after ovariotomy, is because they have not commenced its use early enough, have not properly combined it with opium, or have not given it in sufficient quantities. The disadvantages of waiting until peritonitis and septicæmia are developed before commencing the use of the remedy, and the advantages of giving it early in combination with opium by the rectum, are so evident, it seems to me they require only mention here.

But quinine and opium are not the only remedies I give by the rectum after ovariotomy. Brandy, in doses varying from one to four drachms, at intervals of three hours, may thus be administered with the greatest advantage when the stomach is irritable and stimulation is called for.

Second, the kind of food to be employed after ovariotomy. The introduction of food into the system by the rectum—rectal alimentation—is of the greatest importance to insure continuous support of the vital forces, and the best results from quinine and opium as regards the control and moderation of fever. The articles best suited for this purpose are unquestionably beef-tea, mutton-broth, chicken-broth, and mashed beef. The last named I greatly prefer, as it far exceeds in efficiency any of the other forms of animal nutriment mentioned. It is prepared by first chopping up the beef very fine, say three pounds, and then putting the whole into a wooden bowl and mashing it with a pestle. Now cold water, say a teacupful, is added, and thoroughly incorporated with the mass. This being done, it is next placed in a cullender, and all the juice pressed or rubbed out with as much of the muscular fibre as will pass through the holes. Again the juice is placed in a fine wire strainer and thus cleared of all the larger particles of meat-fibre that would otherwise clog or obstruct the pipe of the syringe. Thus is obtained about sixteen ounces of juice, which is believed to contain the nutritive elements of about one-third of the three pounds of beef employed. For keeping, it should be set in a cool place or upon ice, and for use warmed over a spirit-lamp or otherwise. It may be administered alone or in combination with pancreatine. In the proportion of two ounces to one drachm of the latter an excellent emulsion is formed, which is about the quantity to be administered at a time. Its use should be commenced three hours after the first dose of quinine and opium, and it also is to be repeated every six hours. If it manifests any tendency to irritate the rectum, so as to provoke a discharge, twelve to fifteen drops of the preparation of opium indicated (liq. opii. comp.) must be added. In this event, the quantity of the latter used with the quinine is to be lessened in like proportion, unless there be a demand for more than two drachms in the twenty-four hours, which is hardly probable. When the necessity arises, brandy may be combined with the emulsion in quantity varying from one to four drachms. The emulsion may also be used as a vehicle for the quinine and opium instead of the acidulated water, using for the purpose half to one ounce. In this manner from eight to ten ounces of the emulsion are introduced into the system in twenty-four hours, equal to half a pound or more of beef.

Thus is rectal alimentation, medication, and stimulation gradually carried to the point of giving the greatest amount of nutrition and support.

But again, ingesta by the mouth, when it can be tolerated, is no less important than by the rectum. I only mention this function last, natural as it is, because it is so liable to be disturbed or interrupted at the outset of the treatment. The stomach, almost always irritable from the anæsthetic for the first six or eight hours, can only be made available for the introduction into the system of medicines and food under the most careful watching and with the greatest precautions. Too early resort to it for either purpose is highly prejudicial to success, and oftentimes leads to irreparable mischief. One cannot be too cautious, therefore, in selecting such articles, both of medicine and of food, as may be best adapted to the ends in view and in testing with them the strength of the stomach.

As regards stimulants, brandy, whiskey, and champagne are the best and most available. Whichever one may be selected, it is to be given in small quantities, and often repeated. When tolerance of the stomach is assured and necessity requires it, the dose can be gradually increased, but under all circumstances this must be done cautiously, otherwise much valuable time must be lost. The same thing is true of all medicines employed to meet special indications in the after-treatment.

Much discrimination is called for in selecting articles of diet and in regulating the quantities to be given. Rice-water, barley-water, milk, milk-and-lime-water, milk porridge, beef-tea, chicken-broth, and mutton-broth are the articles to be relied upon.

Of these, milk alone or milk with lime-water, or milk in the form of porridge, is by far the most valuable and reliable in the beginning of the after-treatment, and given with the same precautions pointed out with reference to the use of stimulants, it seldom fails to give satisfaction, especially when used supplementary to regular rectal alimentation. Beef-tea and broths are equally serviceable after a few days, and may be alternated with the milk, or given alone, according to the fancy of the patient or the wish of the surgeon to discontinue rectal alimentation. Given in teaspoonful or tablespoonful doses and repeated every half or every hour, considerable quantities of any one of the articles named may be given in the twenty-four hours without disturbing the stomach or seriously annoying the patient. The patient being constantly under the influence of opium, given by the rectum, sensitiveness, not only of the stomach, but of the entire alimentary canal is held in abeyance, and a state of almost continuous slumber is maintained. Borborygmus and tympanitis, usually so constant and persistent after ovariotomy, under the expectant plan of treatment, show themselves in this state of quininism and seminarcotism only to a very slight extent, and often not at all. These are advantages which cannot be too highly estimated in any course of treatment. The meteorism of typhoid fever, a like condition, my friend Dr. Alexander Hadden, of this city, informs me he controls with an equally high degree of certainty by the employment of salicylate of soda.

The prevention of shock after capital operations by previous administration of large doses of quinine, as claimed by Dr. Hunter McGuire, of Richmond, has its explanation no doubt in the profound and salutary effect which the remedy produces upon the cerebro-spinal and sympathetic nerve-centres. That shock from the operation of ovariotomy, attended with or without serious loss of blood, is a frequent cause of death, immediately or remotely, there can be no doubt. That quinine does prevent or lessen the tendency to shock in capital operations in a marked degree, I am thoroughly satisfied from my own somewhat large experience with it years ago in the general practice of surgery.

AN UNIQUE CASE OF PUNCTURED FRACTURE OF THE BASE OF THE SKULL, WITH AUTOPSY.

By CORNELIUS WILLIAMS, M.D.,

NEW YORK.

On Tuesday, Nov. 19, 1878, S. A., a butcher, about 48 years of age, came into my service in the Out-Door Department of Mt. Sinai Hospital, with the following history:

On the Saturday previous, Nov. 16th, while hanging meat in Washington Market, he slipped and fell against the beam to which the iron hooks are affixed. There was a lacerated wound of the right cheek on a level with the angle of the mouth, and about two and a half inches from it. There was considerable contusion about the temple and the eyelids, the eye was bloodshot, and there was considerable chemosis.

It was on account of the eye that he applied for treatment.

He stated that immediately after the accident he had walked to the Chambers Street Hospital, where his injuries had been attended to. The wound in the cheek was apparently not a deep one, and had not penetrated into the mouth. It had been closed with sutures, but was now filled with pus. I removed the sutures and examined the wound, without discovering that it was more than superficial. I found some periostitis of the orbit and adjoining bone.

An ophthalmoscopic examination of the interior of the eye under atropine mydriasis, revealed an entirely normal fundus, and the patient's vision was, as in the other eye, normal.

Supposing that no serious injury had been inflicted, I ordered ice applications to the right side of the head, and directed the patient to return on Thursday.

He came, and it was at once plain that the character of his injury had not been appreciated, for then cerebral symptoms were well declared. I advised him to apply immediately for admission to the hospital. This, however, his wife declined, and begged me to attend him at his house.

When I saw him an hour later, I found that he had a temperature in the axilla of 102° F. He was somewhat stupid, though answered intelligently, complained of pain in his head, and was constipated.

I found, upon careful examination of the wound in the face, that a probe could be made to pass inward and upward, to the extent of three inches, without then seeming to reach the end of the canal. Exophthalmos, which had not been noted on Tuesday, was now marked.

An ice-bladder was ordered to that side of the head, and a croton-oil purge given.

Punctured fracture at the base of skull was diagnosticated; an unfavorable prognosis was given the family, and a consultation was suggested to them. On the morning of the 20th all the symptoms were aggravated; temperature, 104° F.; patient more stupid, but when aroused answered properly, complained of great pain in right side of head; very little discharge from the wound in the face. The bowels had moved freely. The ice-bladder was continued, and at 12 o'clock Dr. L. Weber saw the patient in consultation. In the single previous explora-

tion of the tract of the wound, which I had made in the presence of Dr. Mundé, the probe had passed upward, backward, and inward, following the direction of a line drawn from the external wound to the inner side of the root of the nose. In the examination now made in conjunction with Dr. Weber, and first demonstrated by him, it was rendered apparent that the hook had passed further outward than I had supposed, and had penetrated the roof of the orbit toward its outer side, instead of through the ethmoid in the region of the sella turcica.

The consultant advised against any operation at the time, on account of the condition of the patient The patient's temperature was 105° F., and his general condition was about as on the previous evening. There was no paralysis except of the vesical sphincter.

It was now observed that, though he ate such food as was given him, and drank with avidity, as indeed he did, up to within fifteen minutes of his death, he either could not or would not utter any word, and remained in possession of the full use of all his limbs, yet speechless, until 10 o'clock on Sunday morning, when he died. The patient's condition at my visit in the evening had remained the same, except that his temperature had gone up to 106° F., and between 9 and 11 o'clock on the night of the 20th he had a number of severe convulsions.

At about 12.30 on the morning of the 21st, with the assistance of Dr. Weber, Dr. Mundé, Dr. Saunders, and Dr. Holmes, the patient being etherized, I made an incision along the superior border of the right orbital fossa, extending from the nasal prominence of the frontal to about three-quarters of an inch beyond its external angular process, and down to the bone. I then dissected the orbital tissues away, keeping close to the bone, and dislocating the eyeball downward and inward. Continuing the dissection backward, I came upon the site of the fracture, about one and three-quarter inches from the upper orbital margin, and a little to the outer side. On reaching the place of the fracture, about a tablespoonful of very fetid, red-colored pus escaped, together with a quantity of gas. The patient's breathing, which had been for some time labored and rapid, immediately sunk to the normal, accompanied by a deep sigh. I desired to further enlarge the incisions, and remove any spiculæ of bone, which I was confident would be found pressing in the brain, but it was advised to do nothing further, but dress the wound and put in a drainage-tube, which was accordingly done. The outer incision was closed with sutures to its external angle, where the tube was brought out, and the man put to bed.

An hour after the operation his temperature, which had been 106° F. immediately before, had fallen to 103½° F. The relief was, however, only temporary, and he had convulsions again before morning. When I saw him at about 11 A.M. I re-opened the wound, and evacuated a considerable quantity of pus, the drain-tube having become clogged. I then inserted a horse hair drain, and ordered ice to the part, together with supportive measures.

The patient died at 9 o'clock A.M., on Nov. 24th. At 5 P.M. of the same day, assisted by Drs. Holmes and Saunders, I made an examination of the interior of the skull. We found the hook had entered the cheek as indicated, had coursed upward and inward, passing behind the zygomatic process of the malar, through the spheno-maxillary fissure, fracturing the bones on either side, and through the roof of the orbit, about 1½ inches back and a little to the outer side, producing there a comminuted punctured fracture, lacerating the dura mater, and forcing several plates of the thin bone into the substance of the brain.

An abscess had formed in the brain, having the form of a cone, its apex upward, and about 1½ inch deep by 1 inch at its base. Immediately around the abscess cavity there was a zone of intense cerebritis; there was intense congestion of the entire brain, and very plentiful deposits of pus in the meshes of the pia mater over its superior portion. The cavities of the arachnoid and the ventricles had not an unusual quantity of fluid in them.

The mortality in ordinary punctured fracture of the skull, where trephining is resorted to early, is always very large; yet an operation which shall have for its end a removal of any and all substances which are acting as a foreign body, must certainly always remain an imperative and unvarying rule of surgery. Had I appreciated the gravity or exact nature of the injury which the man had sustained when first I saw him it would then possibly have not been too late to have resorted to a radical operation for his relief. An examination of his face-wound was, however, as superficial and barren of real information as to his true condition as had evidently been the case with the surgeon who first saw him and closed the wound with sutures. The condition of the eye and adjacent parts was, when taken by itself, misleading. I have very often seen a similar picture presented as the result of slight injury or from an ordinary periorbitis without assignable cause, chemosis of the ocular and palpebral conjunctiva being constantly present, even with very slight periostitis, such as may accompany an hordeolum at the outer canthus. The ecchymosis in this case was not greater than would have been accounted for by the blow received by falling upon the temple, which involved the outer angle of the orbit, and though most marked in the upper lid, was not confined to it.

Lastly, the interior of the eye, examined after complete mydriasis, showed no lesion whatever, proving—though the globe must have suffered considerable compression, which, as the subsequent history developed, was kept up several minutes, the man remaining suspended upon the hook till lifted down—that such compression may leave no trace.

The probe, as first introduced by me, evidently left the track made by the hook and wandered into the adjacent cellular tissue.

It may be that the "centre for language" is not invariably in the *left* anterior lobe, but may sometimes develop in the corresponding part of the brain upon the *right* side? This man, though not suffering from paralysis of any of the muscles used in phonation, was manifestly unable to form words, though sounds he freely uttered which much resembled those used by the deaf and dumb. Perhaps his memory for words had been annihilated. If the hypothesis of a transposition of the centre for language to the right side be not too radical or violent, then the abscess and zone of cerebritis in the anterior lobe, and involving the island of Reil, would well account for the abolition of that faculty. The subject was right-handed.

113 E. 59TH STREET.

TRANSLATION INTO FRENCH.—Dr. Wm. A. Hammond's work on nervous diseases has been translated into the French Language by Dr. F. Labadie Lagrave, who has added chapters on more recent discoveries in neurological medicine and on cerebral syphilis.

ON THE USE OF OXALATE OF CERIUM IN PERTUSSIS.

By BENJAMIN MORJÉ, M.D.,

PHYSICIAN TO THE GERMAN DISPENSARY, NEW YORK.

A MULTITUDE of opinions exist concerning the pathology of whooping-cough. It has at various times been called a variety of bronchitis, a specific neurotic disease; again, it was said to be due to an irritation of the pneumogastric nerves, in consequence of inflamed lymphatic glands. Some believe it to originate in a contagium taken up by the respiratory mucous membrane, which irritates the centre of the respiratory nerves in the medulla oblongata, giving rise to the convulsive paroxysms of cough. Lately it has been defined as a catarrh of certain portions of the respiratory tract, combined with the immigration of a fungus. From these situations, by irritation of the endings of the superior laryngeal nerve, the paroxysms of whooping-cough are said to be caused by reflex action. (Hagenbach.) This would make it seem that the infection is localized. Observers who have made the theory of infection the subject of special research emphasize that the micrococci occurring in whooping-cough differ from those of diphtheria, in not penetrating the epithelium and mucous membrane of the parts. (Letzerich, quoted by Hagenbach, in Gerhardt's Handbuch der Kinderkrankheiten.)

A corresponding mass of medicinal agents was the result of each innovation, so that, in the course of time, through the inefficiency of most of them, an apathy took possession of the profession, which led to the other extreme, in not giving any remedy to mitigate the suffering of the patients, thus permitting the disease to run its course, and trusting to its self-limitation.

Even Vogel at one time declared that there would never be a remedy to shorten the course of pertussis.

Niemeyer was more conservative, and thought that, if we were able to moderate the paroxysms of the cough, we could thereby shorten the career of the disease.

It is useless to enumerate the numberless remedies which have been in turn recommended for application locally, internally, and for inhalation and insufflation. Latterly, quinia has been used by the adherents of the theory of infection, and was thought to be efficient by its local influence on the specific catarrh of the pharynx and upper laryngeal region. (Binz.)

It is immaterial from which pathological standpoint we consider the disease, so long as we concede to it a spasmodic stage—and the second stage is certainly one *par excellence*. Its importance is not to be overlooked when we consider that pneumonia is most often developed in it, and an antispasmodic agent is clearly indicated. I have found a very reliable one in oxalate of cerium, whose action as a nervous sedative was long ago established by Simpson in the vomiting of pregnancy.

In the May number of THE MEDICAL RECORD of last year, an article from the *Practitioner*, having Dr. Thomas Clark for its author, was quoted, in which he states that oxalate of cerium was by him used in chronic cough, with excellent results. To this was afterward also added the testimony of several physicians in this country who had found it reliable in the same ailment.

This encouraged me to try it in the spasmodic stage of whooping-cough, and with excellent results, often astonishing by the promptness of its action. Not only was the frequency of the attacks reduced, but their intensity was also lessened in each case, giving the patient an excellent night's rest, and invariably shortening the second and most severe stage of the disease. No claim is made as to its action on the first or third stages; but the second, as it is by far the most harassing, naturally demands our greatest attention. I have thus far used it in ten cases, of which seven were females and three males. Two of the cases were complicated with other diseases. The mode in which the oxalate of cerium was administered was always the same, it being given in one single dose each day, and before breakfast. The ages of the patients under observation ranged from one to seven years, and the oxalate was administered in one-half grain to three-grain doses.

CASE I.—A girl aged seven years. After a preliminary bronchitis the characteristic whoop declared itself. Bromide of ammonium, belladonna, chloral-hydrate, etc., were given, but seemed to exert little influence, when suddenly the cough ceased, only to give way to typhoid fever, which, with its relapses, lasted for six weeks. Hardly was the patient up again before the whooping-cough reappeared, with even more severity. Expectorants were given, and one dose of 2 grs. of oxalate of cerium half an hour before breakfast each morning. The salutary effect of the oxalate was quickly apparent; but, to see if its action was not overestimated, it was withdrawn for several mornings, when, instead of having light attacks of coughing once or twice a day, with nocturnal quietude, greater intensity and frequency of the attacks quickly ensued. The cerium was again resorted to, and the child soon recovered with but slight inconvenience.

CASE II.—Girl four years old. Had whooping-cough two weeks, when scarlet fever appeared in a very severe form, being complicated with abscesses, uræmic convulsions, etc. The pertussis did not at any time abate, but steadily increased in severity. Of course, with such a number of troubles, much attention could not be bestowed on the cough; but after convalescence as regarded the scarlatina had been established, the pertussis was treated. Oxalate of cerium was given as above, in one-grain doses, once a day before breakfast, with quick amelioration of the harassing cough. It may be here stated that, to reduce the high temperature of the scarlet fever, quinia was repeatedly given in large doses without having the least effect in counteracting the pertussis.

CASES III AND IV.—Boy nineteen months old and girl aged three years, attacked with whooping-cough; coughing spells frequent and severe, occurring once to three times each hour. Bromide of ammonium and belladonna were followed by no improvement, excepting easier expectoration. Epistaxis and frequent vomiting, accompanied by a cyanotic countenance, in both cases. The oxalate of cerium was given before breakfast, in one-half and one-grain doses respectively, once a day, with almost instant relief, the attacks being reduced to two or three light ones in twenty-four hours, instead of occurring hourly and with greater severity. To demonstrate the usefulness of the remedy it was withdrawn for several days, though the bromide and belladonna were continued, with the same result as in Case No. I.

The other remaining cases were uncomplicated ones, and yielded to the oxalate of cerium most satisfactorily, being relieved with the same promptness as the preceding ones. The rule was also observed in each case to continue the remedy one week longer than there was any existence of the whoop, to obviate the possibility of a relapse.

In conclusion, it is claimed for oxalate of cerium that:

1. It decreases the attacks, and thereby reduces the violence of the disease, often checking it instantly.

2. It is easily administered, as only one dose is required in twenty-four hours.

3. Nocturnal quietude is insured.

4. The possibility of complications is lessened.

In this city, as Dr. John C. Peters has shown in the RECORD of May 24th, pertussis is tending to epidemic frequency, and 219 deaths have occurred from it in the first quarter of 1879. For this reason, the evidence furnished by the limited number of ten cases was thought to be sufficient in urging a trial for oxalate of cerium.

Progress of Medical Science.

BLUE URINE.—M. A. Robin recently presented to the *Société de Biologie* several specimens of blue or green urine passed by patients suffering from different affections. Several years ago he submitted to the society a specimen of blue urine passed by a hysterical patient. This urine, when treated with bases, assumed a more intense blue color; when treated with acids, it became red. Since then he has met with nine cases of this anomaly: six of them were convalescents from typhoid fever; one was suffering from chronic myelitis; and two from hysteria. In 1823 Breconneau reported a case of blue urine, in which he claimed to have found a peculiar substance, which he called cyanurine. He did not, however, state what this cyanurine was. M. Robin distinguishes two kinds of blue urine: 1st, that which is blue spontaneously, and 2d, that which becomes blue as a result of ammoniacal fermentation. Of this second class he makes also two subdivisions: 1st, that which becomes blue only on the surface, the change being due to the presence of inferior organisms of a blue color; and 2d, that which is charged with indican.—*La Tribune Médicale*, March 30, 1879.

THE PLAGUE.—The following brief abstract of a lecture delivered by Professor Virchow, before the Medical Society of Berlin, contains the essence of the views held by that distinguished observer concerning the plague: He agrees with old observers regarding the swelling of the lymph-glands, the so-called buboes, as the most striking feature in the disease. It is still an open question, however, whether or not these buboes constitute an essential factor of the disease; whether the so-called fulminating forms may not run their course without glandular swellings. The glands accessible to palpation are not the only ones involved; the entire gland-chains appertaining to the individual regional affections are progressively attacked. The characters of the glandular swellings are analogous to those of the gland-swellings in typhoid fever; they consist of cellular hyperplasia, with more or less hyperæmia and hemorrhagic effusions. The mode of ulceration, however, is perhaps different. In typhoid a small spot of central necrosis forms, and suppuration takes place around it, but within the limits of the gland; in the plague, on the contrary, according to the more trustworthy observers, the suppuration takes place around the gland. Professor Virchow is not disposed, however, to accept this statement unqualifiedly, although he possesses no facts on which to base a contrary opinion. He believes that in the recent Russian outbreak the disease was the oriental, and not the Indian plague; the last outbreak of the latter took place in 1838.

Next in point of interest to the buboes are the carbuncles. These occur in about one-fifth of the cases. They are located on the surface of the extremities and on the breast, and present the closest resemblance to the carbuncles of anthrax. They commence as small, red swellings, which grow very rapidly, and extend to the deeper structures; a vesicle forms on the top of each swelling, and bursts, and an ulcer then develops, which destroys the tissues deeply. Professor Virchow has not met with any description which would lead him to admit the occurrence of carbuncles in the internal organs. The petechiæ are often accompanied by larger ecchymoses. These are met with in the internal organ as well as on the surface of the body; and, in fact, the internal hemorrhages seem to be more constant than the external. In the clinical histories of the oriental plague Professor Virchow has been struck by the great frequency of hemorrhagic affections of the urinary organs; hemorrhages from the lungs are much less frequently recorded. The splenic tumor is a very constant and important symptom. Swellings of the liver and kidneys have also been reported; they are probably due to acute parenchymatous changes.

Professor Virchow believes that the epidemic which raged in Kurdistan and Mesopotamia, and was declared by the Turkish surgeons to be petechial typhus, was really the plague. He draws attention to the fact that specific local affections, and more especially glandular affections, are exceedingly rare in typhus, of which the exanthem, the splenic tumor, and the parenchymatous swelling of the liver and kidneys, and sometimes of the cardiac muscle, constitute, as a rule, the sole lesions. When told that an epidemic of petechial typhus, with "metastasis bubonica," rages in any place (as in Salonica), he is disposed to believe that the disease is really the plague. With regard to prophylaxis, he believes in the efficacy of a strict water quarantine, and of isolation, by means of successive cordons of soldiers, of small, affected districts; but thinks the attempt to quarantine the entire Russo-German boundary impracticable. For the disinfection of garments, etc., he prefers dry heat, which he believes to be much more effective than sulphurous acid. He thinks that, of all diseases, anthrax presents the closest analogy to the plague.—*Berliner klin. Wochen.*, March 3d.

CIRRHOSIS OF THE LIVER COMPLICATED BY THROMBOSIS OF THE PORTAL VEIN.—A case of cirrhosis of the liver occurred in the service of M. Raynaud, at the *Lariboisière*, in which the following points of interest were noted: 1st. Total absence of the classical symptoms of cirrhosis ascites, and dilatation of the cutaneous abdominal veins, thus obscuring the diagnosis of the hepatic affection; 2d. The rare complication of thrombosis of the portal vein; 3d. The occurrence of hemorrhages into the stomach and intestines, which led to an error in the diagnosis; 4th. The absence of ascites, with the complete obstruction of the portal vein by a thrombosis which the anatomical lesions demonstrated to have existed for some time. It would seem, indeed, that the first effect of obstruction to the portal vein should be a more or less rapid collection of ascitic fluid, together with dilatation of the collateral veins; this, at least, is the result of most of the observations of this accident. From twenty-eight observations of obstructions of the

portal vein, Frerichs cites but three cases in which there was no ascites, but in these there were hæmorrhages into the stomach or intestines, which this author believed to be supplemental to the ascites. In the present case, however, the intestinal hemorrhages could not be due to the thrombosis, for the hæmatemesis extended over a period of twenty months, and the thrombosis certainly occurred at a later period of the disease, after the occurrence of the first hemorrhage. The following explanation is therefore given of the symptoms presented: In the course of cirrhosis the patient is seized with hemorrhage from the stomach, caused by the interference with the portal circulation, and the tendency in hepatic disease toward multiple hemorrhages. In the later stages of the disease thrombosis occurred spontaneously, favored by the obstruction to, and consequent slowing of, the portal circulation; by the very marked anæmic condition of the patient, and by the tendency to coagulation of the blood of cachectic subjects. The absence of ascites after the portal obstruction can only be explained by the occurrence of abundant intestinal hemorrhages during the last few days, which acted as a derivative, and depleted the abdominal system.—*Le Progrès Médical*, March 8, 1879.

Fatty Embolism of the Lungs following Fractures.—M. Déjerine presented to the *Société Anatomique* the notes of two cases in which he observed fatty embolisms in the lungs after fractures. In the first case the lower part of the leg was crushed by a railway car; a longitudinal fracture of the tibia, extending upward into the knee-joint; death followed in two and a half hours. At the autopsy the lungs and heart were removed together and very carefully examined. The blood in the right ventricle contained a large quantity of fat in little drops, which dissolved in ether, and were colored black by osmic acid. The pulmonary vessels were gorged with fat, the arterioles, venous radicles, and capillaries containing masses three, four, and five millimetres in length, which refracted light strongly, disappeared under the influence of ether, and showed, after the action of osmic acid, a deep black color, which traced the vascular network almost completely at certain points. The examination of all parts of both lungs gave the same result. The second case was no less convincing than the preceding. It occurred in the service of Dr. Brouardel, of San-Antonio, and the lungs were examined in conjunction with M. Mayor. The patient died thirty-six hours after receiving a fracture of the right parietal bone, and, as in the former case, the pulmonary vessels contained fat, but in somewhat less quantity. In neither case were the other organs examined for fatty embolism.—*Le Progrès Médical.*

Cholecystotomy.—Mr. Bryant presented the following case to the Clinical Society of London: A single woman, aged 53, was admitted into Guy's Hospital, under Mr. Bryant's care, in July, 1878, with two discharging sinuses of three years' standing, following an abscess which had been previously forming for two. At first the sinus was laid open and pus alone escaped, but subsequently, as bile flowed in quantities from the wound, an exploratory operation was performed, and at a depth of two inches a biliary calculus one inch long turned out of the gall-bladder. Everything went on well after the operation, and, although bile continued to escape from the wound for about two weeks, the parts were quite healed in about four months, and the patient left the hospital cured. The author brought the case before the society as an encouragement to surgeons to try their art in allied cases, for he was well prepared to support the suggestions of Dr. Thudichum, made twenty years ago, "that gall-stones might be removed from the gall-bladder through the abdominal walls;" and he pointed out that under certain circumstances the operation was justifiable, when the sinuses by their presence were setting up inflammatory and suppurative changes about the gall-bladder, without any obstruction to the bile duct, as well as in that more serious class of cases in which the cystic or common bile-duct was obstructed, and dropsy of the gall-bladder with jaundice complicated the case, as shown by the cases of Dr. Sims, and Mr. G. Brown.—*The Medical Press and Circular*, May 14, 1879.

Sutural Junction of the Ulnar Nerve.—In reporting this case to the Clinical Society, Mr. Hulke said the procedure was a rare one, but where practised had already given most satisfactory results, and held out the promise of restoration to many an otherwise crippled limb. His case was interesting from the long interval (fifteen weeks) that elapsed after the injury before the operation was performed, and for the speedy restoration of commencing nerve function, which was only three or four weeks after the operation. The patient, a blacksmith, æt. 53, was struck by a slate from a roof in a hurricane, across the inner side and front of the elbow. The wound healed slowly, and was painful from the first, the pain assuming a neuralgic character. The forearm and arm wasted, the man's health suffered, and he was quite unable to do any work. Fifteen weeks afterward, all parts supplied by the ulnar nerve in the hand were numbed and cold, and the scar in front of the elbow was exquisitely tender. The patient was then chloroformed, and an Esmarch's bandage put on. The ulnar nerve was exposed at the elbow and found to be completely divided, and the two ends widely separated. The upper end was bulbously swollen and dragged out of its course by the shrinking scar; the lower end was shrivelled. In both ends were minute particles of slate embedded. Both ends were removed by clean transverse sections, and were then found to be three-quarters of an inch apart. In order to bring them together, the upper end was stretched and drawn down and joined as closely as possible to the lower one by four silk sutures passed through the sheath. Absolute contact was not attainable. The operation was done and the wound afterward dressed antiseptically. The neuralgia ceased at once, and did not recur, and in less than six weeks the patient returned home. Sensation, which had begun to return about a month after the operation, rapidly increased, so that, upon leaving the hospital, the man went at once to his work. In the discussion which followed, Mr. Hulke remarked that the ends of the nerve after the operation were not absolutely touching, but were as nearly as possible together without actual contact. Other cases, with a longer interval than his own between the injury and the operation, had been recorded. He had himself, in excising pieces of nerve for frontal tic, been sometimes quite annoyed at the rapidity and thoroughness with which nerves were repaired: in one instance, after excising nearly half an inch, sensation returned. In the present case Mr. Hulke thought he had removed three-quarters of an inch of the nerve at the time of the operation. As to the trophic condition of the skin, he could say nothing about it. The patient had long since left the hospital and was now at work. — *The Medical Press and Circular*, May 14, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 19, 1879.

SCHOOL HYGIENE.

THE close of the school year and the commencement of the summer vacation suggest many topics connected with school management, past and prospective, which invite passing comment. In glancing over the past, and viewing what has been done in the way of perfecting our systems of public education, we have, as a young country, just reasons for pride. Whatever else may be said of frauds, in other departments, concerning the prostitution of the general welfare to political purposes, that of education has been more or less exempt. The desire has been in every part of the country to perfect the system, to keep it untrammelled of mere party influences, and raise it to the highest possible level of utility. So apparent, indeed, is this, that an inordinate zeal is manifested, and the true end of education is in danger of being lost sight of in the effort to teach beyond the capacity for learning. But this is an evil so well recognized by every calm thinker, be he lay or professional, that we hardly dare refer to it without an apology for so doing. Still, so long as there is a wrong, all efforts to right it are excusable, even to the point of reiterating old truths, using old arguments, or reciting threadbare tales.

It is encouraging, however, to think that the numerous discussions of the subject have not been in vain, that new ideas of education are beginning to prevail, that the cramming system is losing popularity with our best educators, and that the promise of a better future is brightening before us. This is more particularly true with regard to some of our private institutions, and notably with some of our leading colleges. The public schools, although they have made notable progress in this respect of late years, are still very much in the background in regard to the proper use of their privileges. The agreeable offset to the cramming system which prevails in these institutions is the fact that the vacations are long and give good opportunities for recruiting.

The system of our public schools, at least those in this city, is founded apparently upon the principle of making the best show in the school examinations. With such an end in view, the teacher is necessarily stimulated to get over the most ground possible, and by dint of severe drilling to make the best exhibit of the results to the examining board. No one needs to be told that the scholars are not only damaged mentally and physically, but are really worse off, as far as learning is concerned, than if no efforts had been made to educate them. So long, however, as the trustees demand such a showing on the part of the teachers, so long will the latter crowd the capacities of their pupils to the utmost.

Coupled with this system are the unsanitary conditions which surround most of our public schools This remark does not apply particularly to those of this city. All over the country complaints arise regarding this subject, and it is to the credit of the profession that it has spoken so plainly upon matters of school hygiene, and has used its influences so effectually in creating a proper public opinion.

While our schools in the city are situated for the most part in unhealthy localities, in tenement districts, and are surrounded by all the possible unsanitary conditions, our district schools over the country are, relatively speaking, no better favored. The country school-house is generally poorly built, of inferior capacity, with no provisions for ventilation, and situated in the most barren spot in the whole district. Added to these drawbacks is not unfrequently the positive unhealthfulness of the locality. Stagnant pools surround the building, the drainage is imperfect, and the only redeeming feature in the whole picture is that the reeking privy-vault is sometimes respectably distant from the house.

But we are not called upon to dwell upon what must be facts well appreciated by all, but to make their reiteration another excuse for what, whether from a purely mental, or from a more strictly physical point of view, we may legitimately style sanitary reform in school management. The opportunities to such an end are given school managers during the present vacation. During the summer absence of the minister the church is renovated and put in decent order, and why should not the school-room, occupied so many hours more by our children, share the same fate? There is enough to do in increasing the ventilation and improving the surroundings of all our schools, and particularly so in our own city. It seems almost like wasting words to urge these obvious duties on all concerned, but we are willing to risk our efforts as fruitless in the consciousness of speaking once more for the school child, who is loaded down with tasks, and who is wearied with long hours of study, poisoned by the foul air in the school-room,

and perhaps permanently ruined in health. We have faith, however, that eventually the public will be educated to the point of demanding these necessities, and we patiently bide the time.

THE TENEMENT-HOUSE ACT.

THE Board of Health has received the requisite appropriation for carrying out the provisions of the new tenement-house act, and have commenced a series of improvements which must eventually be of great benefit to those compelled to inhabit these structures.

The new law greatly enlarges the powers of this board in the supervision of proposed buildings for tenement-houses and the inspection of existing structures. For several months past the Board have required those proposing to erect tenement-houses in this city to submit to them the plans for approval, with special reference to light and ventilation. The new law so amends the old act that, hereafter, it shall not be lawful to erect for, or convert to, the purposes of a tenement or lodging-house, a building on any lot where there is a building on the same lot, unless there is a clear open space exclusively belonging thereto and extending upwards from the ground of a distance varying from ten to twenty-five feet, according to the height of the building.

At the rear of every such house there shall be a clear open space of not less than ten feet between it and the rear line of the lot, subject to modification by the Board of Health in special cases.

Another provision of the act is that no one continuous building for tenement-house purposes shall occupy more than sixty-five per centum of the said lot, and in the same proportion if the lot be greater or less in size than twenty-five by one hundred feet. This provision, however, does not apply to corner lots, and may also be modified in special cases by a permit from the Board of Health.

One of the sections of the new law provides for a thorough system of ventilation, and regulates the height from the floor to the ceiling, and the existence of windows connecting with the external air. The total area of window or windows in every room communicating with the external air shall be at least one-tenth of the superficial area of every such room, and the upper half shall be so made as to open the full width.

Provisions are also made for the ventilation of every room which does not communicate directly with the external air, and is without an open fire-place, by special means of separate air-shaft, extending to the roof or otherwise, as the Board of Health may prescribe.

By section 3 the Board is empowered, in cases of overcrowding, to issue an order requiring the number of inmates to be reduced within ten days.

This is a matter which has long been discussed by the health authorities, but the lack of proper provisions, in previous acts, has crippled their movements to such an extent as to render their efforts at making the necessary reforms almost powerless.

Giving the Board of Health such absolute power in the matter of constructing buildings from a sanitary point of view, throws upon it a great responsibility. We have no doubt that they are prepared to meet it, and, as the appropriation has been made, that the money will be judiciously spent. Of course, considerable time must elapse before the necessary inspections are completed, but when this is done we shall probably have a report of the doings of the inspector which will give us more insight into construction of tenement-houses, and the manner in which their occupants live, than we have hitherto had. The original law contemplated the levying of a tax upon each owner of a tenement-house, but by some political manœuvre this personal tax was transferred to the city treasury. Although it would be more equitable to have those persons who are directly benefited by the tenement-house system pay for necessary improvements, it nevertheless cannot be made a cause for grievous complaint. The appropriation is not excessive, as compared with others for which there is no benefit to the citizens at large. We are quite confident that, with the execution of the law left to the Board of Health, nothing will be omitted which favors its success.

YELLOW FEVER.

DURING the past week the country has been startled at the reappearance of yellow fever in Memphis, the city which suffered so severely from the epidemic last year.

At the present writing we are happy to be able to chronicle that it proved to be a superlative scare, for no new cases have developed within five days, and the prevailing impression with the health authorities of the city is that there is, at present, no further occasion for alarm. The National Board of Health was prompt in issuing recommendations which were designed to throw most effective barriers in the way of the spread of the disease from infected districts, and there has been a praiseworthy readiness on the part of exposed localities to comply with those suggestions. We hope the cordon of safety will be strongly drawn; that the desire to cheat conscience into a false security will not be manifest; and that extraordinary homage to a political feature will not be seen. Frantic partisanship to law is usually just in proportion to the ignorance of its spirituality, and, when the spirituality is removed, the vengeance of the letter is sure to be felt. The letter and the true spirit will save the nation from the inroads of the destroying pestilence. The letter kills only when it is separated from the spirit, and of the separation the people alone are guilty. The union of the law and the hearts of the people who wish to secure the greatest good for the greatest number may save thousands of valuable human lives and millions of dollars' worth of property.

Reviews and Notices of Books.

THE ANATOMY OF THE JOINTS OF MAN. By HENRY MORRIS, M.A., M.B. Lond., F.R.C.S., Senior Assistant Surgeon to, and Lecturer on Anatomy and Demonstrator of Operative Surgery at the Middlesex Hospital. Philadelphia: Lindsay & Blakiston. 1879.

THIS book contains 450 pages, and is made up of a complete anatomical description of each of the joints in the human body. It is therefore a valuable book both for study and for reference. It supplies a want long felt, for, although we have numerous works on human anatomy in which the anatomy of the joints is given, it has been, to a very great extent, piece meal, and the student has been unable to obtain a complete knowledge of the anatomy of any particular joint without being obliged to refer to separate portions of the same volume. In Dr. Morris's book can be found a complete anatomical description of each joint, embracing the ligaments, the synovial membrane, the bursæ, the relations of the articular surfaces and the muscles, the nerves, the blood-vessels, and the movements permitted. The first two chapters are devoted to general remarks, a description of the various structures which enter into the construction of a joint, the varieties of joints, and the varieties of diarthrodial joints. With Chapter Three is commenced a description of the articulations of the skull which extends through Chapter Four. Part II. embraces four chapters, which contain descriptions of the joints of the spinal column, the lumbo-pelvic union, the pelvis, and the thorax. In Part III., containing seven chapters, the joints of the upper extremity are described; while Part IV., embracing five chapters, is consumed in describing the joints of the lower extremity. The old *pons asinorum*, the Y ligament of the hip-joint, receives due inspection in this part, the author believing that "although the appearance may be produced by dissection, it does not naturally exist." The book is well illustrated, many of the plates being colored. In general accuracy and fulness it seems to be an addition to previous descriptions of some of the joints, and we are of the opinion that the author is entitled to credit for exhibiting a new method of stating what is already known. The copy which we have is poorly bound, and we hope is not a fair specimen of the work of these old and well-known medical publishers.

HAND-BOOK OF DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NASAL CAVITIES. By CARL SEILER, M.D., Lecturer on Laryngoscopy at the University of Pennsylvania; Chief of the Throat Dispensary at the University Hospital; Curator of the Pathological Society, etc., etc. With thirty-five illustrations. Philadelphia: Henry C. Lea. 1879. 12mo, pp. 156.

THIS little volume is divided into fourteen chapters; the first five are devoted to the study of laryngoscopy and rhinoscopy, and the usual methods of local treatment by their aid. The remainder treat chiefly of the more common diseases of the throat and nasal passages, the final one consisting of a table of symptoms for differential diagnosis, similar to that of Mr. Browne, of London, in plan, but not exactly like it in execution.

The attempt to crowd so much into a small compass impairs the value of the work as a manual of diagnosis and treatment. Had its pages been made simply a manual of laryngoscopy and rhinoscopy, without any professions as a manual of therapeutics, it would have better supplied a want long felt by medical students and others for concise, practical instructions in the manipulation of mirrors and instruments, especially since the edition of Mackenzie on the use of the laryngoscope has been out of print.

We can heartily commend the volume to the medical student as a good guide to the study of laryngoscopy and rhinoscopy, penned from the hand of a gentleman fully familiar with the subject of which he writes. The therapeutic portion will require supplementary study from other sources as the requirements of the practitioner gradually call for fuller information.

There are many good points in the volume, some of them evidently original. Of these we may specify a recommendation, in those rare cases where it becomes requisite to resort to a mechanical appliance to elevate a depressed epiglottis, to attach to the epiglottis a small artery forceps, such as is used for temporary compression, with a string and small weight attached to it; the denunciation of the use of brushes mounted in brass caps, and which are affected by the reagents used in applications to the larynx, etc.; the recommendation to burn off molten caustic from the end of a probe, after it has been used, so as to destroy all infectious material that might cling to it; the recommendation to frequently moisten a sponge with lime-water and the like, when employed in a respirator, to protect workmen from the vapors of acids; the use of a guarded pair of scissors for amputating an elongated uvula, an original form of which is illustrated; the application of a coating of nitrate of silver to the surface of an amputated tonsil to protect the wound from the influence of the air.

The chief criticisms we have to make are as follows:

The great advantage claimed for a head-rest in laryngoscopic manipulations is not generally acknowleged by laryngoscopists; a head-rest is, in fact, rarely used, and much more rarely requisite. The use of the stem of the rhinoscopic mirror to depress the tongue, as recommended by the author, has almost always been found by the writer to be more more difficult and unsatisfactory than the use of a special tongue-depressor, be it nothing more than the forefinger, which, by the way, is sometimes the most satisfactory appliance for the purpose. In the figure representing the normal larynx in respiration, the thyroid cartilage is designated as the cricoid, and the cricoid as the first ring of the trachea; a repetition of the mistake made in Mackenzie's volume, from which the illustration has been taken. A mistake is made, too, in asserting that the well-known pyriform swelling over the supra-arytenoid cartilages, characteristic of laryngitis phthisica, is not mentioned in any of the books on the subject. The prevalence of post-nasal catarrh, as it is here termed, is evidently over-estimated.

The pathological portions of the book are concise, and in accordance with the advanced views of pathologists. The article on aphonia, and the allusions to voice throughout the text, are especially commendable as far as they go; and it is evident that had not the author been hampered by the effort to cover a great deal of subject-matter within limited space, he would have done himself a great deal of credit. Of the remaining subjects of disease, while we can only say that they are much more unsatisfactorily treated, for a similar reason it is to be stated that the principles of therapeutics inculcated are in the main judicious. Some recommendations of electric treatment and counter-irritation are not usually resorted to, but experience in these particulars and in others differs very much with different observers.

In conclusion, we would express the belief that Dr. Seiler has given us a little guide that can be safely placed in the hands of medical students, to supplement the practical instruction in dispensaries and hospitals, and to assist the practitioner in familiarizing himself with the details of manipulation which he has not had the opportunity of observing personally. As such, it will no doubt reach a wide circulation, in the United States at least, and stimulate the author to more ambitious efforts.

DISEASES OF THE INTESTINES AND PERITONEUM. By JOHN DYER BRISTOWE, M.D., J. R. WARDELL, M.D., J. W. BEGBIE, M.D., S. O. HABERSHON, M.D., T. B. CURLING, F.R.S., and W. H. RANSOM, M.D. New York: William Wood & Co. 1879.

THIS volume forms the fifth of Wood's Library of Standard Medical Authors. Most of the articles are from Reynolds's System of Medicine, the only exceptions being those articles on Diarrhœa, Diseases of the Duodenum, and Abdominal Tumors, which are from S. O. Habershon's work on "Diseases of the Abdomen." The reputation of the writers on these different diseases is so well known, and the articles themselves have been so highly spoken of, that any special notice of them is uncalled for. The volume is indispensable to those who are not fortunate enough to possess Reynolds's System of Medicine. We think that the publishers are to be congratulated on the wisdom of their selection, and are entitled to the thanks of the profession for thus placing within the reach of every one books on such practical subjects.

HOW TO TAKE CARE OF OUR EYES, with Advice to Parents and Teachers in Regard to the Management of the Eyes of Children. By HENRY C. ANGELL, M.D., Professor of Ophthalmology in Boston University, etc. Boston: Roberts Brothers. 1878.

THIS is a neat little book, in which considerable information about the care of the eyes is given in a compact and simple form. Some parts of it, we think, show evidences of carelessness in its preparation.

In the present state of knowledge, the facts regarding *weak sight* ought to have been stated more fully and more clearly than is done here. Some of the symptoms of asthenopia are given, and then follow some rules to be observed by those suffering from this trouble. The author then says (p. 17): "If the weak sight does not improve satisfactorily under the observance of the rules given, it will be necessary to resort to the use of convex glasses." Now, the symptoms of asthenopia which have been detailed may arise from several different conditions. It is true that the majority of weak-sighted readers of Dr. Angell's book will probably have hypermetropic eyes, and will probably need convex glasses; and yet it is quite possible that some of them will be weak-sighted from a very different cause, and, indeed, from a cause for which convex glasses would be just the wrong remedy. The author further says, "for the benefit of such as are unable to get proper advice," that "the convex glasses will probably require to be of about 48-inch focus." It seems to us that this kind of prescribing is of questionable value, even for those whose asthenopia arises from hypermetropia. Of course, it might be quite erroneous for a different case.

On page 23 we read: "In over-sight one does not see with perfect clearness and ease at any distance. Very fine type like this [1 Jaeger], for instance, is not read even by those too young to be old-sighted, in a good light, quickly, fluently, and without effort." We infer that the author is speaking merely of the ordinary testing of a patient for over-sight, and without the use of atropine. If this inference is correct, the passage quoted is untrue as to hundreds of cases of "over-sight"—even of the class which present annoying asthenopia. We think that the distinction between manifest and latent hypermetropia should have been fully stated, as it is a very important matter, and at the same time very easily understood.

The word *hypermetropia*, by the way, we have not found in the book. This seems to be an unfortunate omission, especially as the technical name for near-sight—*myopia*—is given.

A frontal headache is mentioned as one of the most common general symptoms of near-sight in school-children. We think that headache from hypermetropia is much more common, but we find no allusion to this in the book. We think it would have been appropriate, also, in a work of this kind, to have mentioned some of the interesting facts regarding other neuroses which seem to be connected with errors of refraction.

On page 22 we find: "In near-sight the eye-ball is too full or convex, and in over-sight it is too flat." This is a poor definition of the causes of these conditions. They are more correctly defined, however, in other places.

In explaining the causation of presbyopia, no mention is made of any failure of power in the ciliary muscle.

On page 16 is the following: "Never read when lying down: it is too fatiguing for the accommodative power." Other reasons why reading when lying down is so injurious should have been given.

Among the imperfections of the eye as an optical instrument, the author mentions "spherical aberration due to a lack of symmetry in the cornea and lens, or to a lack of correspondence in their axes. This makes the refractive power of the two inharmonious, creating a slight astigmatism." This is rather obscure, if it is intended to explain the natural astigmatism common to all eyes. Usually there is an astigmatism of the cornea, and of the lens, and one tends to neutralize the other.

As directions are given regarding the management of inflammations of the eyes, we think it would have been well to have mentioned some of the very common applications which ought *not* to be used,—such, for instance, as poultices. Having alluded to sympathetic ophthalmia, the remarks upon it might well have been a little fuller, as the disease is so important, and such sad results are constantly seen because laymen do not know more about it.

CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE UNITED STATES PHARMACOPŒIA. By JOHN ATTFIELD, M.A., and Ph.D., of the University of Tübingen.

ATTFIELD'S Chemistry has been so long before the profession, that there are few interested in the subject who are not familiar with it.

It is in the fullest sense of the word practical, and as such a valuable aid in the laboratory. Nevertheless, it does not fail to inculcate and explain the general principles of chemical philosophy.

The department of organic chemistry is very full in all that interests the medical and pharmaceutical student.

The artificial as well as the natural alkaloids are studied and their production explained, and in the end of the book is an appendix giving a table of official tests for impurities in pharmacopœial preparations.

The portions of the work of special interest to the practitioner are those devoted to toxicology and the examination of morbid urine and calculi.

The student of practical chemistry who has not the advantages of laboratory instruction, will find a valuable guide to his work in the volume before us, as the details are made so plain as to allow him to follow the author as an instructor.

AIDS TO FAMILY GOVERNMENT, according to FROEBEL. By PERTHA MEYER. Translated from the Second German Edition by M. L. HOLBROOK, M.D. To which is added an Essay on the Rights of Children and the True Principles of Family Government. By HERBERT SPENCER. New York: M. L. Holbrook & Co. 1879. 8vo, pp. 208.

IT is a popular and perhaps natural custom to scoff at books as helps in treating so wayward a portion of humanity as children. We do not believe, however, that any one can read the present work without being impressed with its value. This value is due not so much to the practical hints given, as to the fact that there is throughout the book an undercurrent of earnest purpose to impress the reader with the importance of rightly educating the child, and of the immense difference which a proper and improper training can make in his future character and career. There are hereditary traits which no amount of education or force of environment can entirely eradicate; but, if it is possible to do anything in the way of modification or improvement, childhood is the time. Books which inculcate the importance of this deserve, therefore, both attention and encouragement.

EPITOME OF SKIN DISEASES, with Formulæ. By TILBURY FOX and T. C. FOX. Second American Edition. Phila.: H. C. Lea. 1879. 8vo, pp. 216.

THIS edition has been enlarged to three times its original amount, and two-thirds of it is newly written. Its contents are admirably arranged, the symptomatology, pathology, classification, etiology, etc., being first treated of in a general way, and then the particular diseases taken up in alphabetical order. The names of the authors are sufficient indorsement of the reliability of the work, and in the narrow range to which epitomized works are confined this deserves a high place.

The classification of skin diseases adopted by the American Dermatological Society has been inserted.

NINTH ANNUAL REPORT OF THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE for the year 1878.

THIS Institution comprises a dispensary and a hospital. In the former there were treated during the past year 4,084 cases for diseases of the eye, and 894 cases for diseases of the ear. In the hospital 394 cases were treated, and so many of these were pay-patients that the Institution is to a large extent self-supporting. There were 355 important operations on the eye, and the success in these seems to have been extraordinary. Out of 60 operations for primary cataract 54 were successful. In 63 operations on the iris there were no failures; nor are there any recorded as resulting from the remaining 232 operations.

The School of Ophthalmology and Otology connected with the Institution consists of four professors, by whom four lectures a week are delivered, besides clinics. It is stated that the plan of instruction adopted is not surpassed by any other institution either here or in Europe.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 15, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.10 P.M. The minutes of the previous meeting were read and approved.

The Chairman of the Committee on Necrology, Dr. F. V. White, announced the death of Dr. H. S. Downs, one of the original members of the Academy.

SELF-LIMITATION IN CASES OF PHTHISIS.

DR. AUSTIN FLINT read a suggestive and interesting paper upon the above subject. It was more than forty years since Jacob Bigelow applied the term "self-limited" to certain diseases, and gave to it the following definition: "By a 'self-limited' (disease) I mean one which receives limits from its own nature, and not from foreign influences, which, after obtaining a foothold in the system, cannot, in the present state of our knowledge, be eradicated or abridged by art, but to which there is due a succession of processes to be completed after a certain time; which processes and time may vary with the constitution of the patient, and may tend to recovery or to death, but are not known to be shortened or greatly changed by medical treatment."

Since the publication of that discourse a host of diseases had been shown to be self-limited, but especially the essential fevers, inclusive of acute pneumonia, and many acute inflammations. By observations made in 1863, Dr. Flint proved that acute articular rheumatism, and also in 1875, that acute dysentery, belonged to that category.

It was interesting to inquire, in different diseases and in different cases of the same disease, how far the course and termination might be due to self-limitation. The object of the paper was to inquire how far the favorable course and ending of pneumonic phthisis were determined by self-limitation. So long ago as 1858, he published a paper in the *American Journal of Medical Sciences* in which it was claimed that pulmonary phthisis might be self-limited, and an analysis was given of twenty-four cases which had terminated in recovery.

That claim had been renewed in 1863, in a paper that appeared in the published Transactions of the New York Academy of Medicine, and it had since been reiterated in his work upon the Practice of Medicine, and more recently in his work upon Phthisis. Of all diseases, phthisis was the least expected to end favorably from intrinsic tendency. The cessation of its progress was considered as implying some extrinsic agency by means of which it had been arrested.

THINGS NECESSARY TO BE ESTABLISHED.

Dr. Flint inquired, What was necessary to establish the fact of a favorable course, and to prove of any other disease that its favorable course and termination were due to self-limitation? A disease belonged in that class when it ended in recovery independent of hygienic or therapeutics; in other words, when the favorable course and termination were due to intrinsic tendency, even though they were promoted by judicious treatment. On the other hand, a favorable intrinsic tendency might be obstructed by injudicious treatment.

Self-limitation could not be inferred from a single case, or a few cases, because the course and termination of disease might be affected by influences which were extrinsic, but not apparent. The cases observed, therefore, must be large. They must be carefully and honestly observed. There must be no room for doubt with regard to the accuracy of diagnosis. At once the difficulties became obvious which prevented the requisite study and observation, and the cases in which the requisite conditions were fulfilled were rare. But during a period of thirty-four years Dr. Flint had observed the histories of a number which he believed to be amply sufficient to establish the statement that

IN CERTAIN CASES PNEUMONIC PHTHISIS, OR PULMONARY CONSUMPTION, CEASED TO BE PROGRESSIVE AND MIGHT END IN RECOVERY FROM SELF-LIMITATION.

He had not included acute tuberculosis under that head, and had also excluded the disease known as interstitial pneumonia or fibroid phthisis. He should consider the term pneumonic phthisis as applicable to all cases of phthisical disease exclusive of acute tuberculosis and interstitial pneumonia.

Of 670 cases of phthisis, the list embracing a few cases of acute tuberculosis and interstitial pneumonia, 44 ended in recovery. In 31 cases the disease ceased to progress, remained non-progressive for several months, and in a majority of the cases for many years. In 31 cases the phthisical disease might be considered as having ended, complete recovery not taking place. Those 31 cases he regarded as hardly less valuable in the study than those which terminated in recovery. In 75 cases, therefore, there was either recovery from phthisis or the disease ceased to progress.

Such a collection of cases offered a rich field with reference to several points of inquiry; but only one was taken up, namely, the proof of self-limitation.

In how many of the cases was it evident from the history that the cessation of the disease was not due and its progress not arrested by medicinal or hygienic treatment? Answer to that question furnished proof of self-limitation.

MEDICINAL TREATMENT.

Of the 44 cases which ended in recovery, there were 23 in which there was no medicinal treatment to which arrest of the disease could be attributed. In the remainder of the cases medicinal treatment consisted in the use of simple tonics, but in none of them could the treatment be considered curative.

Of the 31 cases in which the disease was non-progressive without recovery, there were 15 in which there was no medication by which the disease was controlled, and in several none whatever.

In the two groups of cases, namely, those ending in recovery and those in which the disease was non-progressive, medicinal treatment was absent in about equal proportion; in the first group, 23 of 44; and in the second group, 15 of 31.

HYGIENIC TREATMENT.

In a considerable proportion of cases change in climate and other hygienic measures were not of such a character that potential influence could be attributed thereto.

Dr. Flint then referred to cases already published in his work on Phthisis, the histories of which he claimed established self-limitation in cases of phthisis.

He was unable to quote any authors who declared in distinct terms that phthisis was a self-limited disease. The *curability* of phthisis, however, was by no means a novel doctrine. All observers of much experience agreed that patients had recovered from pulmonary phthisis even after the formation of cavities, but in all those instances the disease had been supposed to be cured sometimes by medicinal, sometimes by hygienic treatment, or by both combined. The position had not been taken by others that the recovery was spontaneous in some of those instances.

Dr. Flint's *first* object was to show that he had been warranted by facts in taking the position that self-limitation, in cases of phthisis, was established.

His *second* object was to speak of self-limitation as bearing upon conclusions drawn with respect to the treatment of phthisis. If the disease ended in recovery, exclusively from intrinsic tendency, it was evident that self-limitation must be more or less concerned in cases in which recovery took place under different measures of treatment; that it was a factor co-working with certain measures. When that factor was feeble or wanting, curative treatment would not probably be of much avail. Allowance must be made for that factor in estimating the value of curative treatment. The extent of its working must be different in different cases; sometimes considerable, sometimes moderate, and sometimes slight. Recovery from phthisis, in order to become proof of the success of any method of treatment, must take place in a number of instances, so large as to render it certain that the real agency could not have been self-limitation. It would be unjust to say that therapeutics were powerless, because when combined with self-limitation they would probably save many cases which would not otherwise recover.

CHANGE OF CLIMATE.

Dr. Flint regarded change of climate as a most important measure in the early stage of the disease. With reference to the part of the world best suited for consumptive patients, experience was discrepant. He then referred to two patients who visited Nice; one was loud in praise of that locality for consumptives, and the other was equally energetic in disparagement of Nice. Self-limitation in one was effective, in the other it was wanting. The only truly scientific plan of investigation respecting changes of climate was to study results in a considerable number of cases. Dr. Flint then made an analysis of 74 cases in which temporary change of climate was an important, and in some the chief measure of treatment. Of the 74 cases, 9 ended in recovery, and in 13 the disease was non-progressive. 22 out of 74 cases were regarded as a number sufficiently large to warrant the conclusion that more or less curative influence was due to climate. To those were added other cases in which the disease was slowly progressive, and in only 11 of the 74 cases did it appear that there was no improvement following change of climate.

One of the most striking recoveries took place in New York City, and without any important medication.

The inquiry with regard to the best place for consumptives was important, but for lack of time it was essentially waived with the remark that the selection of the resort must be governed by the circumstances proper to each case. The same remark was applicable to other hygienic measures. An important point in the clinical study of phthisis, with reference to effect produced by change of climate and hygienic measures, was to make a correct estimate of the influence of self-limitation in determining a favorable course of the disease.

Third. Dr. Flint offered some remarks with regard to symptoms and signs by means of which judgment must be formed with reference to the influence of self-limitation in individual cases of phthisis. Was it possible to judge whether there was an intrinsic tendency to a favorable course and termination? The symptoms which warranted hope, sometimes even an expectation of a favorable course and termination, related especially to the circulation, to body heat, to alimentation, and to nutrition. Persistent frequency of pulse, fever, anorexia, and progressive emaciation, opposed reliance on self-limitation. In proportion as phthisis was well tolerated, there was room for hoping that the disease would prove self-limited. If tolerance was limited, self-limitation was proportionately weak or wanting. There were abortive cases of phthisis as well as of other diseases, evidenced by phthisical lesions found at the apex of a lung post-mortem, without clinical history. Self-limitation might be exemplified, notwithstanding a large area of consolidation followed by cavities of considerable size. Confinement of the affection within circumscribed limits, that is, an absence of signs indicating progressive extension and general diffusion, were the most reliable points for a favorable prognosis. Heredity was not incompatible with an intrinsic tendency to recovery, and reference was made to an illustrative case in which both parents, three sisters, and three brothers died of phthisis.

In conclusion, Dr. Flint remarked that his histories afforded proof that profuse and repeatedly occurring hæmoptysis, chronic laryngitis, pleurisy with effusion, and perineal fistula, were not by any means in all cases unfavorable with regard to prognosis based upon self-limitation.

The paper being before the Academy for discussion,

Dr. W. H. Thomson remarked that he was not certain whether Dr. Flint used the word self-limitation in the sense of spontaneous recovery, or whether he gave to it some of the definitions which would more clearly define the term.

He thought it proper to say of typhus fever that it was a self-limited disease; also, that small-pox and all the specific communicable diseases were self-limited, because they depended upon the introduction into the system of some morbid agent, which had more or less the property of reproduction. So, also, the term might include processes of repair, as after a fracture of a bone. Was it to be understood that the disease known as phthisis was regarded by the author of the paper as self-limited in the sense of having a definite series of processes in succession, and that such succession of processes, occupying a more or less definite period of time, had a tendency to end in recovery like a case of fever or fracture of the femur? If so, he could hardly at the present time accept the conclusion. If, on the other hand, it was understood that there was a tendency to spontaneous recovery, and that cases after such recovery could be observed, he fully agreed with the author, and notably on the view of the question of change of climate, regarding change of climate as beneficial. Change of climate was unquestionably beneficial, but not positively remedial. In order to be a positively remedial agent, the atmosphere of the supposed beneficial locality must contain ingredients which acted curatively. In the exceptional cases in which the locality was abundantly supplied with pine trees, that was perhaps true, but he thought that in the great majority of instances the tendency to recovery, induced by change of climate, resided either in the fact that certain irritants were absent, or the possibility upon the part of the patient to take advantage of certain elements, such as being in the open air, and therefore avoiding what elsewhere was irritant. The system recovered spontaneously under the beneficial processes aided by change of climate, and with such an understanding he could accept the doctrine that phthisis was a self-limited disease.

His own feeling was that a reliance upon self-limitation in phthisis in the sense of self-limitation of the reparative processes of a fracture or a specific fever, would be rather mistaken and somewhat mischievous. He thought that a study of the causes which kept up prolonged inflammation of the lung might lead to a more proper appreciation of the reasons why it was so commonly a fatal disease. For example, he doubted if the tendency to self-limitation was sufficiently strong to heal even a simple wound, in case such wound was rubbed from eighteen to twenty-four times each minute, and yet such was the irritation to which an ulcerated lung was constantly subjected, thereby preventing that one thing which made any abscess a source of great danger—namely, prevention of the formation of a limiting membrane.

Again, the pus, through decomposition, was turned into a cauterant substance, and wherever it went it left its mark along the trachea and larynx.

Those were some of the reasons why the disease was not self-limited in the proper sense of the term.

Dr. Flint remarked that he did take the position that in certain cases of pneumonic phthisis there was a tendency to spontaneous recovery; that recovery took place in certain cases irrespective of any appreciable cause; that it was self-limited in the sense that typhus fever was self-limited, differing from it in certain respects, such as that in the latter the fever ran a certain course with regard to time, etc. He did assume that in both, in the pneumonic phthisis as well as in the fever, facts went to show that in a certain proportion of cases recovery was due entirely to self-limitation.

He did not wish it to be inferred from that view that we were to rely upon self-limitation. He did not take that ground, for the fact of self-limitation was consistent with the efficacy of medicinal and hygienic means. His object in bringing out the paper was to show that we had a factor the influence of which had not heretofore been recognized, and that we should ascertain how much allowance must be made for it when studying the effect of medicinal and hygienic measures.

Dr. J. R. Leaming remarked that if it was true the tendency of nature was to limit disease, according to the old doctrine *vis medicatrix naturæ*, the office of the physician should be to assist nature; but if he should go along with her, carrying a bag of pills, he might assist in not limiting the disease. According to Dr. Flint we must look to the mixed form of phthisis, that in which there was inflammatory action resulting in tuberculosis, for evidence of self-limitation. In that case Dr. Leaming thought it to be the *duty* of the physician to assist nature in limiting the disease. As he thought, the beginning of many cases of phthisis was in pleurisy, especially in subjects possessing tubercular tendency; and if that was true, the removal of the exciting cause—the breaking up of the pleuritic adhesions—was giving nature the best possible chance to effect a recovery. The best possible method of effecting that was by keeping the lungs full and free. If expansion of the chest was kept up, and the lungs kept free, the conditions of irritation were removed, and a tendency to tuberculous deposit

thereby relieved. Tuberculous conditions generally resulted from local irritations giving rise to hyperæmia. He had no doubt there were cases of spontaneous recovery from phthisis, but the factors causing that recovery were not so obvious. Changes in the seasons were sometimes attended by favorable changes in the progress of a case of phthisis, and a phthisis beginning in the winter might be entirely relieved by the coming of spring and summer weather. Nutrition also had very much to do with permanent improvement in phthisis. Sometimes nutrition became improved by accident not known, or change of diet not suggested by the physician. If the meaning of the appellation self-limitation was not such as obtained in typhus fever or in the exanthematous diseases, or those diseases usually called self-limited, he was hardly able to understand its application.

Dr. J. C. Peters thought that some of the later views entertained regarding pulmonary consumption might throw light upon the subject under discussion. He was early taught that consumption began in the apices of the lungs; that for the time being the phthisical affection might cease until a fresh crop of tubercles was added lower down in the pulmonary tissue; that a succession of tuberculous deposits occurred, until large portions of one or both lungs became involved. If that doctrine was true, it was easy to understand how a cessation of the disease might occur. But lately he had studied an article in which the author took the position that the largest number of cases of phthisis recovered temporarily at least, and the view was based somewhat upon the doctrine stated above. It was known that after the first deposits of tubercle took place, inflammatory processes were usually established about them—in many cases they were not, and then the tubercles were frequently absorbed —and then it depended upon the condition of the patient's general health or the influence of some special cause, whether another tuberculous deposit took place. All physicians saw cases of recovery from consumption, and yet there were many others which we did not know how to control.

Dr. Thomson regarded the question as an important one, and thought it should be discussed in a way which might perhaps sound rather singular for him to suggest—namely, why was phthisis not self-limited? If it was self-limited and had a tendency to recovery, then there must be many cases in which that element of self-limitation was interfered with, and such limitation was prevented. If it was a self-limited disease it was very important to fully agree with Dr. Flint, in order that we might not be misled and attribute recovery to other causes. Exactly what his views were upon the subject he was not at present able to say; for the subject was a large and important one, and demanded careful study. He had always understood self-limitation in disease as a term restricted to those which had a definite course, and running that definite course through a definite series of developments, and finally, after that definite course had terminated, ending in recovery. To include phthisis in that category because of certain cases which got well, cases which constituted a very small minority, was a view he was not prepared to accept. He was not prepared to admit as proven, that phthisis came under what he had understood by the term self-limitation. Nevertheless, if it was true that phthisis had a tendency of its own to recovery, or the reason why patients suffering from it did not get well was because foreign influences, foreign to its own tendency, interfered with it, it was an exceedingly important question for discussion.

Dr. Flint, in explanation, remarked that he inferred from Dr. Thomson's remarks that he (Dr. F.) took the ground that phthisis, as a rule, had a tendency to recovery,—a position which he had not taken. The position which he took was, that there were certain cases which exemplified a tendency to recovery. The term self-limitation had been used somewhat loosely, but he had defined it as representing an intrinsic tendency to recovery, and in the light of that view he had studied the subject. Undoubtedly an intrinsic tendency to a fatal result existed in certain cases, whereas in other cases there was an equally undoubted intrinsic tendency to recovery. He did not wish to have the drift of the paper construed into an antagonism to means to be used for effecting a cure, but it was desirable to recognize the existence of the factor self-limitation, in order to determine, if possible, how far it was clinically operative.

The Academy then adopted the following amendment to its Constitution:

COMPOUNDING OF ANNUAL DUES.

"Any Fellow in regular standing who has attained the age of thirty years, and who has paid *five* annual dues, may compound for all future annual dues by the payment of $150; one who has attained the age of thirty-five years, by the payment of $145; one who has attained the age of forty years, by the payment of $135; of forty-five years, $125; of fifty years, $115; of fifty-five years, $105; of sixty years, $95; of sixty-five years, $80; of seventy years, $65."

The Academy then adjourned, to meet at the call of the President.

Correspondence.

PERINEAL ARTIFICIAL ANUS.

To the Editor of The Medical Record.

Dear Sir:—I read with much interest the recent report in the Record, of the highly interesting and pre-eminently fit proceedings of the Medical Society of Kentucky, in relation to the late heroic Dr. McDowell, of Danville, Ky., as well as the suitable remarks in a subsequent number of the Record in relation to the late Dr. Miller, of Louisville, Ky. Permit me now, through the same widely circulated medium, to call the attention of the medical profession to the just claims to their lasting remembrance and gratitude, of another long forgotten, but nevertheless worthy Kentucky pioneer surgeon. I allude to the late Dr. John P. Campbell, of Flemingsburg, Ky., who, on the 24th of November, 1800, performed the operation for *Perineal Artificial Anus*, in the case of a female infant three days old, having a congenital imperforation of the anus and rectum (*Atresia Ani et Intestini Recti*), being the first operation of the kind ever performed in the United States for this formidable species of congenital malformation. The operation, as will be shown, proved a complete success.

It will be observed that in this particular species of congenital imperfection no anus exists, and there is, generally, not even the trace of an anus to be seen in *situ naturali*, the perineal raphe being extended from the scrotum to the point of the coccyx without any interruption; and, should a considerable portion of the rectum be deficient, then, indeed, the case becomes most serious and embarrassing to the surgeon, as there is no external sign by which he can ascertain positively

where the end of the rectum can be found, or, indeed, whether the organ even exists at all or not. And to add still further to the difficulty and the perplexity, the rectum, besides being abnormal, sometimes occupies an abnormal position.

It was just in such cases as we are here considering that the celebrated French surgeons, MM. Amussat, Roux de Brignoles, and Goyrand, in their various publications on this subject during the years 1834 and 1835, declared that previous to that time such cases were never successfully treated, if treated at all, but were suffered to perish, because, as they imagined, their predecessors had not sufficient skill and courage to make free incisions in the perinæum, in order to search for and to find the blind end of the rectum when it laid deep. They claimed great merit to themselves for introducing, as something entirely new in such cases, free incisions with a scalpel, guided by the finger, instead of the old method of punctures with the lancet or the trocar. These distinguished surgeons were, however, anticipated by Mr. Benjamin Bell, of Edinburgh, who, half a century before, described most graphically this very operation in such cases of free incisions with the scalpel, guided by the finger, and who reports two interesting cases upon whom he himself successfully operated. (*A System of Surgery*, vol. iii., p. 277. Edinburgh. 1787.) They were also anticipated by Dr. Campbell, of our own country, in 1800. Such a grave case, in the subject of an unfortunate child, was suddenly thrown upon the charge of Dr. Campbell, in the then infant state of surgery in our country, and in the wild woods, as it were, of the infant State of Kentucky. How the doctor executed the difficult and delicate operation will be given in his own language in the following letter to Dr. Samuel Brown, of Lexington, Ky., dated at Flemingsburg, Ky., March 9, 1801, being upward of three months after the operation. This letter was subsequently published in the "Medical Repository" of New York, the oldest and most prominent medical journal then in the United States:

"November 23, 1800, I was called to visit the child of Mr. Hutson, in the vicinity of this place, on the second day after the birth. The case was an imperforate anus. As an operation was inevitable, the next day was determined upon for that purpose. On the third day, when I went to operate, the child was very fretful and uneasy, the abdomen was much distended and discolored, and, from the information of the nurse, the fæces had been frequently vomited up through the day. I began the operation by making a longitudinal incision on the place where the anus should have been, which was slightly marked by nature. This incision I extended in the direction of the os sacrum with a lancet, until that instrument could be no longer serviceable, and no fæces following it when withdrawn, I introduced the scalpel and carried it up in the same direction until I had the pleasing sensation of having reached a cavity. The instrument was withdrawn and the meconium flowed plentifully. The child was placed in a warm bath up to the middle for a few minutes, and after this a tallow bougie being introduced to keep the orifice open, the little sufferer dropped into a pleasant sleep. The bougie and warm bath were continued but a few days, with the occasional use of some magnesia alba and rhubarb, till the child recovered, and every expectation to be derived from the operation was fully answered. At this time the child does well, and the mother assures me that she observes nothing in its present condition different from that of others which she has already nursed. My only fear was that the sphincter muscle might be destroyed, but I am now convinced no inconvenience will ever result from that quarter. It was a female child, and the length of the canula, which I ascertained by measuring the instrument, appeared to be about three inches."—*The Medical Repository*, vol. v., p. 45. New York, 1802.

In conclusion, I would remark that the late Dr. Campbell richly deserves honorable mention in the American history of surgery, for his genius, his courage, and his skill.

I am, very respectfully yours,

W. Bodenhamer.

249 Madison Avenue, New York, June 19, 1879.

CHRYSOPHANIC ACID—ITS USE IN THE TREATMENT OF SKIN DISEASES.

To the Editor of The Medical Record.

Dear Sir:—The following is a resumé of a series of articles published in the "Wiener Medizinische Presse," from April to October, 1878, by Prof. Neumann, upon the use of chrysophanic acid in skin diseases. Goa-powder is the product of a tree growing in the tropics of the Old and New World. It is the chief source (containing 84 per cent.) of chrysophanic acid. The action of this acid upon the skin is that of an irritant and a dye. It colors the linen and hair. The inflammation of the skin which it causes is often quite intense, accompanied by œdema, acne, and occasionally by chills. All these unpleasant symptoms disappear in about ten days. Prof. N. reports 26 cases of psoriasis: the age of the oldest patient 77 years, the youngest 16 months; longest duration of disease, 40 years, shortest six weeks; longest period of treatment, 46 days, shortest, three, which he has treated by the use of this remedy. In two of these the disease reappeared. He also reports 12 cases of chloasma uterinum successfully treated. He has also found it curative in pityriasis versicolor, herpes tonsurans, lupus maculosus and erythematosus, syphilis cutanea, maculosa and papulosa, vegetans, psoriasis syphilitica, palmaris and plantaris. Its use is contra-indicated in eczema (excepting eczema marginatum) and sycosis. He does not recommend its use in solution, but in the following ointment:

℞. Ung. simpl.....	40.00.
Liquefact. admisce exactissime,	
Acid. chrysophan.....	10.00
Adde Ol. bergamont.....	gtt. decem.

In psoriasis the treatment should begin with a warm bath, when the scales should be removed by means of a brush and sapo viridis. Baths are not advisable afterward, because in this way the ointment is brought in contact with the healthy skin. When extensively diffused upon the face and scalp, care must be used on account of the violent inflammation excited. The same remark applies to genitalia. Better results are sometimes seen by combining it with the tar treatment. In parasitic skin disorders an ointment in the proportion of 1 : 8 does best. In chloasma uterinum, lupus vulgaris, maculosus and tuberculosis, apply twice a day; spread on linen held in place by adhesive strips. Thymol should be added to the ointment for lupus erythematodes. It requires long treatment. While it does not prevent the reappearance of psoriasis, it removes it so speedily that in his opinion it may be regarded as one of the most important remedies in skin diseases introduced to the profession in the last ten years.

M. Stanton, M.D.

Syracuse, June 11, 1879.

QUACKS AND REGULARS.

To the Editor of The Medical Record.

Sir:—The Record of May 10th reports Prof. Edmund Andrews's paper on the treatment of hemorrhoids by injection. The doctor speaks of having corresponded "with a *large number* of *itinerate doctors—many of them* the *veriest quacks*"—on this subject, and has obtained statistics of numerous cases.

The paper describes the treatment—which I will not recapitulate—to have been very successful in the vast majority of cases, and endeavors to prove that we are indebted to *quacks* for *valuable scientific information.*

I desire merely to ask if it is customary for "*regular*" practitioners to compile their statistics of cases from the records of *quacks?*

Yours truly,

Solon B. Stone, U. S. Army.

Fort Bower, A. T., June 9, 1879.

Of course we do, Mr. Editor, whenever the quacks present any truths worth studying. We know that some of the brightest discoveries in medicine were made by empirics, and it is our glory that we seize on them and appropriate them to the benefit of mankind.

Here was a body of quacks possessing a new treatment for hemorrhoids. They acquired an enormous reputation, and made their plan sweep the country with all the power of a great popular movement. They made tens of thousands of experiments with such éclat and success, that in whole regions they almost monopolized the treatment of piles. I saw that this immense mass of experiment was too valuable to be lost, and determined to collect the facts, sift the results, and put the whole on record for the study of the profession. Truth is immaculate, no matter whence obtained.

Edmund Andrews, M.D.

No. 6 Sixteenth Street, Chicago.

PUERPERAL HEMORRHAGE.

To the Editor of the Medical Record.

Dear Sir:—I was called on the 1st day of April last to see Mrs. P., a delicate lady of forty-three years. I found her entirely prostrated from ante-partum hemorrhage. She is a multipara, and was then in her seventh month of pregnancy. By vaginal examination I found the os slightly dilated, but rigid. I ordered 30 gtt. of tinct opii and 10 gtt. acid. sulph. arom. to be given every three hours. On the evening of April 2d the hemorrhage had ceased; her pulse was good and she seemed entirely comfortable. She improved until the morning of the 9th; hemorrhage again came on. My friend Dr. Wallace was called. I was again sent for on the evening of the 9th. We decided the only hope for the mother's life was the delivery of the fœtus. Upon examination it was found to be a case of placenta previa; the placenta being attached to neck of the uterus. The hemorrhage was profuse. The vagina was plugged with lint, and fl. ext. ergot (Squibb's), 15 gtt., was ordered every half-hour. Vomiting soon came on, and it was with difficulty she retained anything on her stomach. At 5 o'clock P.M., the 9th, the hemorrhage still continued; she had slight labor-pains. We thought best to rupture the membranes; the lint was removed from the vagina, a gum catheter introduced, and the membranes ruptured. The hemorrhage was now frightful. She sank; was almost pulseless; her extremities were cold. We used whiskey and tinct. opii *freely;* there was but little improvement until about 11½ o'clock P.M.

I succeeded in pushing the placenta back into the uterus; the head of the fœtus presented, and the hemorrhage was entirely arrested. At 12¼ A.M., the 10th, she was delivered of a dead child. The placenta was removed immediately, and the hemorrhage controlled with cold water and tannic acid introduced into the uterus by syringe. At this time, April 24th, she is doing well; no chills or fever followed.

In this case did the tinct. opii and acid sulph. aro. control the hemorrhage?

Did the excessive use of ergot cause the child's death?

I believe the tinct. of opii the very best stimulant in such cases.

J. Alexander La Rue, M.D.

Hillsboro, Pocahontas Co., W. Va.

COMPARATIVE SIZE OF GRADUATING CLASSES IN MEDICINE.

To the Editor of the Medical Record.

Dear Sir:—By the politeness of those in authority, I this morning received the annual announcement of the Medical Department of the University of the City of New York, for the session of 1879–80. By this showing the future outlook of this old and time-honored institution is certainly a brilliant one, and its friends have great cause for congratulation at its prosperous condition.

The announcement contains one slight error which with your permission I will correct.

In instituting a comparison between the number of its graduates of class '79 with that of other institutions (of a similar kind), it is claimed to be the largest class ever graduated by any medical college in the United States.

I have now lying before me the catalogues of the graduating classes of Jefferson Medical College for the years of 1855 and 1856 respectively.

The former class numbered 257 and the latter 215,—while that of the University numbered 204.

This is of no special importance to any one, and I write this only that the truth of history may be vindicated while the error is still fresh.

Very respectfully,

J. W. Hamilton, M.D.

437 Clason Ave., Brooklyn, N. Y.

New Instruments.

COMBINED TABLE AND LOUNGE.

By JAMES L. LITTLE, M.D.,

of New York.

Figure 1 represents the lounge when closed. It is made without a back, so that the surgeon can stand on either side to examine a patient. The upholstered part is made in a separate piece, and connected with the frame by four upright supports working on pivots at each end to allow of raising and lowering by a leather tag or loop. It is hard and firm, without springs, stuffed with hair, and covered with leather or enamelled cloth.

Fig. 2 shows the lounge converted into a table. The top is kept from falling by a flat iron hook.

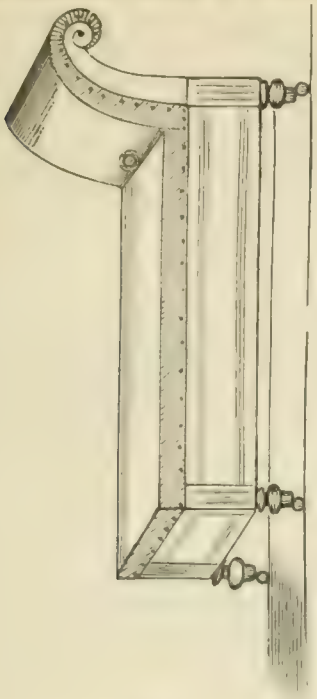


Fig. 1.

The weight is so nicely adjusted that a person can sit on the extreme end without danger of its tilting. In this position it can be used for gynecological purposes. Two sliding wooden foot-rests should be illustrated in the end of the movable frame, which may be drawn out if needed, and a drawer may be placed between them. There is also space enough in the lower frame for a pillow, sheets, towels, etc.

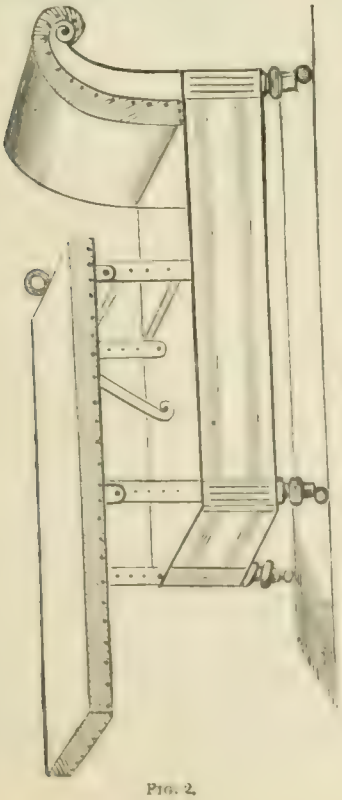


Fig. 2.

This table and lounge is made for the profession by F. Hayack & Co., 615, 617, 619 Tenth av., New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 6 to July 12, 1879.

McKee, J. C., Major and Surgeon, Medical Director, Dept. of Arizona. His leave of absence granted him in S. O. 64, C. S., from these headquarters, extended fifteen days. S. O. 74, Dept. of Arizona, June 25, 1879.

Cleary, P. J. A., Capt. and Asst. Surgeon. Granted leave of absence for five months. S. O. 157, A. G. O., July 7, 1879.

Munn, C. E., Capt. and Asst. Surgeon. Granted leave of absence for four months. S. O. 159, A. G. O., July 9, 1879.

Paulding, H. O., 1st Lieut. and Asst. Surgeon, now awaiting orders at Washington, D. C. Assigned to temporary duty at Fort McHenry, Md., relieving Asst. Surgeon W. B. Brewster. S. O. 160, A. G. O., July 10, 1879.

Brewster, W. B., 1st Lieut. and Asst. Surgeon. When relieved to report by letter to the Surgeon-General. S. O. 160, C. S., A. G. O.

Doctors John J. Kane, J. M. Banister, Wm. B. Brewster, Aaron H. Appel, Chas. Richard, and W. F. Carter, having been found qualified by the Army Medical Board, in session in New York City, have been appointed Assistant Surgeons, with the rank of 1st Lieutenant, to date from June 3, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.— Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 12, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 5, 1879.	0	4	59	4	32	15	5	0
July 12, 1879.	0	4	63	5	78	22	2	0

The American Academy of Medicine.—The annual meeting of the American Academy of Medicine will be held in the city of New York, commencing September 16th.

Dr. Roberts Bartholow.—The degree of LL.D. was conferred upon Dr. Roberts Bartholow by Mt. St. Mary's College, Emmettsburg, Maryland, at the annual commencement, held June 25th.

Qualifications and Requirements for Entering the Medical Corps of the U. S. Army. We

publish the following for the information of persons desirous of entering the Medical Corps of the U. S. Army.

[Extract from Laws of the United States.]

Act of Congress, *Approved* June 30, 1834.

"Sec. 1. *Be it enacted*, &c., That from and after the passage of this Act, no person shall receive the appointment of Assistant Surgeon in the Army of the United States, unless he shall have been examined and approved by an Army Medical Board, to consist of not less than three Surgeons or Assistant Surgeons, who shall be designated for that purpose by the Secretary of War, and no person shall receive the appointment of Surgeon in the Army of the United States unless he shall have served at least five years as an Assistant Surgeon, and unless, also, he shall have been examined by an Army Medical Board constituted as aforesaid."

Act of Congress, *Approved* June 23, 1874, and June 26, 1876.

"Sec. 4. That the Medical Department of the Army shall hereafter consist of one Surgeon-General. . . . One Assistant Surgeon-General. . . . One Chief Medical Purveyor, four Surgeons, with the rank, pay, and emoluments of Colonels, two Assistant Medical Purveyors. . . . Eight Surgeons, with the rank, pay, and emoluments of Lieutenant Colonels, Fifty Surgeons, with the rank, pay, and emoluments of Majors. One hundred and twenty-five Assistant Surgeons, with the rank, pay, and emoluments of Lieutenants of Cavalry for the first five years' service, and with the rank, pay, and emoluments of Captains of Cavalry after five years' service. . . . ."

All candidates for appointment in the Medical Corps must apply to the Hon. Secretary of War for an invitation to appear before the Medical Examining Board. The application must be in the handwriting of the candidate, stating age and birthplace, and be accompanied by testimonials from Professors of the the college in which he graduated, or from other Physicians in good repute. Candidates must be between 21 and 28 years of age (without any exceptions), and graduates of a regular medical college, evidence of which must be submitted to the Board before examination.

The morals, habits, physical and mental qualifications and general aptitude for the service of each candidate will be subjects for careful examination by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt.

The following will be the general plan of the examination:

I. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board.

II. Physical examination. This will be rigid, and each candidate will, in addition, be required to certify "*That he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*"

III. Oral examinations on subjects of preliminary education, general literature, and general science. The candidate must satisfy the board in this examination that he possesses a thorough knowledge of the branches taught in the primary schools, and a failure to show this will end his examination.

Oral examination on scientific subjects will include Chemistry and Natural Philosophy; and that on literary subjects will include English Literature, History of the United States, and General History—Ancient and Modern. Candidates possessing a knowledge of the higher mathematics, the ancient and modern languages, will be examined therein, and due credit given for a proficiency in any or all of these subjects.

IV. Written examination on anatomy, physiology, surgery, practice of medicine and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves; it is made an important subject in this examination.

V. Clinical examination, medical and surgical, at a hospital.

VI. Performance of surgical operations on the cadaver.

The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interests of the service.

The Board will report the merits of the candidates on the several branches of the examination, and their relative merit in the whole, according to which the approved candidates will receive appointments to existing vacancies, or to vacancies which may occur within two years thereafter.

An applicant failing one examination, may be allowed a second after one year, but not a third.

No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments will be entitled to transportation on obeying their first order.

(Signed) Geo. W. McCrary,
Secretary of War.

War Department, November 30, 1878.

Board of Examiners of the U. S. Marine Hospital Service.—The Surgeon-General, Jno. B. Hamilton, of the U. S. Marine Hospital Service, has appointed a Board of Examiners to hold a competitive examination of candidates for the Medical Corps of that service, to commence in Washington, D. C., on the 15th inst. Details for the Board: Surgeon C. N. Ellinwood, President; Surgeon T. W. Miller; Surgeon W. H. Long, Recorder.

Treatment of Dandruff.—In answer to inquiries concerning this in the *Lancet*, the words of Abernethy are quoted, "cleanse, dry, and anoint." Cleanse the head every other day with a wash of yelk of egg, and use an astringent lotion of borate of soda and glycerine, ℈i. to ℥i., with an ointment of creasote every night.

Dr. William Darling.—The degree of LL.D. was conferred on Dr. William Darling, of the University of New York, by the University of Vermont at its Annual Commencement, held June 26th.

Leprosy.—There are thirteen cases of this disease in Louisiana, according to Dr. L. F. Salomon. They are, with one exception, of the tubercular variety. No mode of treatment seems to have been at all efficacious with them.

Graduates from the Medical Colleges in the United States in 1878.—During the year 1878 there were 2,708 medical students graduated from the fifty-nine colleges of the United States.

BOOKS RECEIVED.

Transactions of the Pathological Society of Philadelphia. Vol. viii. Edited by J. Henry C. Simes, M.D. Philadelphia: J. B. Lippincott & Co. 1879.

Original Lectures.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

A Lecture Delivered at the Manhattan Eye and Ear Hospital, in the City of New York.

By O. D. POMEROY, M.D.

(Reported for The Medical Record.)

Part I.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR—ETIOLOGY—COLD—EXANTHEMATA AND OTHER FEVERS—EXCESSIVE INFLATION OF THE TYMPANUM—ROUGH HANDLING OF THE EAR—IMPACTED CERUMEN—INJECTIONS INTO THE TYMPANUM—NASAL DOUCHE—ACUTE PHARYNGITIS—PNEUMONIA—MODE OF INVASION—OTORRHŒA A MISNOMER—APPEARANCES UPON INSPECTION—CHARACTER AND QUANTITY OF THE DISCHARGE—APPEARANCE OF THE DRUM MEMBRANE—PECULIAR PULSATION.

Gentlemen:—At our last meeting I spoke with reference to acute inflammation of the tympanum. There are a few points yet to be disposed of, but as I wish this evening to develop as thoroughly as possible the subject of chronic purulent inflammation of the tympanum, I will at once pass to the consideration of the causes of this affection.

ETIOLOGY.

In general terms, it may be stated that the causes of chronic suppurative inflammation of the tympanum are almost identical with those of acute inflammation of the tympanum. I will *first* speak of the effect produced by *cold, on the ear*, either directly or indirectly.

a. After taking cold there are a great variety of symptoms. The patient may have rheumatism, or fever, or pneumonia, or sore throat, etc. A sore throat is a very common result of taking cold. Sore throat will not produce otitis necessarily. Anyone with inflammation of the upper pharyngeal space is *liable* to an attack of otitis, the inflammation travelling up the Eustachian tube, and involving the tympanum.

b. A draught of air upon the head or upon the ear. Under these circumstances the inflammation involves the tympanum by means of the meatus auditorius externus. Direct exposure of the ear to draughts of cold air, such as arise from sitting by an open window, or more especially in a railway car near an open window, listening at a key-hole, etc. It is well known that conjunctivitis is sometimes dependent upon a draught of cold air coming in immediate contact with the eye from the patient's looking through a key-hole. In the same manner inflammation of the ear may be produced by exposure to a draught of cold air while listening at a key-hole.

c. Cold water in the ear from bathing. This may operate as a cause in producing inflammation of the ear in a twofold manner. There is *first* the effect produced by the application of cold to the ear, and *second* the violence inflicted. For example, when a person dives, the concussion of the water upon the drum-membrane may inflict sufficient violence to cause its rupture. Or in surf bathing a breaker may strike the ear violently. In such a case we have the double influence of cold and violence in the production of inflammation. Water may also pass up the Eustachian tubes from being taken into the mouth in considerable quantity, which the patient often swallows.

Second. The exanthemata and other fevers. The worst cases of otitis media, produced by the exanthematous fevers, occur in connection with *scarlet fever*, and in nearly every instance the ear trouble depends upon the sore throat which accompanies the disease. This form of otitis is frequently of a very grave nature. It is very likely to destroy a considerable portion of the drum-membrane, the ossicles may be removed by ulceration, and in other ways extensive damage may be done to the ear. Occasionally in scarlet fever the inflammation travels from the skin down the external meatus, and involves the ear from that direction; but these cases are quite infrequent.

In *measles*, as you all know, there is a disposition to the development of catarrhal inflammation of mucous membranes. Catarrhal conjunctivitis and nasopharyngeal catarrh, often dependent on this disease, and the pharyngeal catarrh may travel up the Eustachian tube and produce otitis media in the same manner as in the sore throat associated with scarlet fever. The eruption of measles may also extend down the external auditory canal, and involve the tympanum externally.

The same observations may be made with reference to *typhus, typhoid*, and other fevers, but as a rule the inflammation which is to produce otitis media is first developed in the throat. In *small-pox* the tympanum is somewhat more likely to become involved by way of the external auditory canal than in the exanthematous fevers.

Third. Violence inflicted upon the meatus or upon the tympanic cavity.

a. Excessive inflation of the tympanum, which may even rupture the drum membrane. This is a somewhat infrequent cause. You have, however, frequently had opportunities to see how the drum membrane is reddened by inflation of the tympanic cavity. You have seen, as an occasional result of inflation, pain in the ear, produced simply by the violence with which the air has been forced into the tympanum. Since Politzer's method came into use, inflation of the tympanum has been somewhat overdone. I feel sure, if it does not excite inflammation it is likely to stretch the drum membrane in such a manner as to cause it to lose its normal elasticity. Occasionally we see a drum membrane, in an ear that has been inflated excessively, which flaps to and fro like a loosely-fastened sail. Rupture of the membrane, produced by excessive inflation, is not a serious accident, because the tendency existing in the membrane to heal is so strong that it is scarcely possible to prevent it from closing again directly.

b. Any rough handling of the ear, such as may result from improper efforts at removal of cerumen or foreign bodies. I have previously said considerably to you regarding the damage liable to be done by resorting to other means than the syringe in removing cerumen and foreign bodies from the ear.

Some of you have observed that when a given drum membrane is first examined, it may not be reddened, but after three or four examinations have been made, it has been discovered that a good degree of hyperæmia has been developed. This has been brought about directly by violence inflicted in the management of the speculum, and otherwise handling the ear roughly. If you ever have had your own ears examined, you doubtless recollect how sensitive an organ the ear is, and how easily irritation sufficient to

throw it into a state of pain and inflammation may be produced.

c. The presence of *impacted cerumen*. In a report which I made several years since of a number of cases of impacted cerumen, I directed attention to the fact that inflammation of the middle ear was caused not very infrequently by the presence of a plug of cerumen in the external auditory canal. The plug acts as a foreign body. The manner in which the violence is inflicted may be as follows: whenever the jaw moves the condyle presses against the meatus, and for the time being narrows its calibre. If, therefore, the canal is filled, or perhaps only partly filled, with hard cerumen, any pressure will inflict violence upon the wall of the external auditory canal, on account of the presence of the hardened cerumen.

4. *Injections into the Tympanum.*

a. Accidental injections from the use of the nasal douche afford us an example under this head; whether the water is hot or cold, properly salted or not, and I was almost ready to say, whether properly injected or not, we are liable to have trouble. Certain it is that many of us here have caused acute inflammation of the tympanum by the use of the *nasal douche*, and we have probably used it in a reasonably careful manner. It is not always possible to prevent the patient from swallowing while the nasal douche is being used, and if he does swallow, he is liable to have water thrown into the tympanum. Water introduced in that manner does not necessarily excite inflammation. Nothing can be more bland than quite warm water, containing not more than a drachm of salt to the pint, yet occasionally it will produce acute inflammation of the middle ear of considerable violence. Not long since I had a patient from the country, who said that the physicians in his village were using the nasal douche extensively in the treatment of catarrh, and it was pretty generally known among the people that those upon whom it was used were frequently deafer than prior to the commencement of treatment. I use it much less frequently than formerly, and I suspect its general use is being abandoned.

b. Any injection used to relieve a catarrhal condition of the Eustachian tube and middle ear, may, when not desired, pass into the tympanum. This has happened with the Eustachian catheter, and with my Faucial catheter, and it is sometimes quite unavoidable. It is a very good rule to use such a small quantity of the solution, whatever it may be, that it is impossible to reach the tympanum in injecting it. I think I have the same prejudice against injecting the tympanic cavity that has been entertained with regard to injecting the cavity of the uterus. If the drum membrane is perforated, there may be no objection to injecting the tympanum, nay, it may be strongly recommended.

Fourth.—Any inflammation of the pharynx whatsoever, is liable to travel up the Eustachian tubes, and thus give rise to inflammation of the middle ear.

Acute pharyngitis may be developed in a healthy person in consequence of exposure. It is especially liable to be developed in one who suffers from chronic naso-pharyngeal catarrh. As you are all aware, the tuberculous condition gives rise to sore-throat, and it is somewhat analogous to that condition which gives rise to chronic catarrh in general. In these cases the destruction of drum membrane is apt to be extensive.

Inflammation of the tympanum is sometimes developed in the course of a *pneumonia*. In this condition it depends upon the air being thrown violently into the cavity of the tympanum through the Eustachian tubes during the rapid respiration incident to the lung trouble.

MODE OF INVASION.

The mode of invasion of this affection is as follows: it begins where the acute inflammation ends. The tendency of acute inflammation of the tympanum is toward self-limitation and recovery. There is frequently a tendency to resolution. Thus, if there is a formation of muco-pus or pus in the tympanum, it does not necessarily follow that rupture of the drum membrane will occur. The membrane may be ruptured and heal again directly. If the rupture is small, or is of the form of a fissure, it is likely to heal at once. If it is large, and there is a considerable loss of tissue, it is not as likely to heal. The rapidity with which these ruptures heal, or whether they heal at all, is determined very largely by the condition of the patient. If he is in good general health, if there exists a strong tendency to tissue repair, he will recover from his acute attack completely; but if not, it will pass into the chronic suppurative form. In cases where the perforation is large, the entrance of atmospheric air from the meatus into the cavity of the tympanum has a tendency to perpetuate the disease. The function of the drum membrane is not too well understood, but one part, at least, is appreciated, namely, it protects the sensitive parts of the tympanic cavity from the influence of irritating agents which might enter through the external meatus. The delicate membrane lining the tympanum does not bear well the irritation incident to sudden changes in temperature of the atmosphere, and one of the functions of the drum membrane is to protect it from that source of irritation.

This affection is frequently called *otorrhœa*, and was spoken of by the older writers under that head. This is a misnomer, and should be abolished from the nomenclature of diseases of the ear. The otorrhœa is simply a symptom. There is always a discharge in this disease, although the patient will frequently deny its existence. There may be a discharge so small in quantity as not to be appreciated by the patient, hence you should not regard his statement, but should examine the ears carefully. The discharge may be very slight and so glued to the drum membrane that you may be in doubt whether you are looking at the drum-membrane or at the discharge covering it, as the latter may so nearly simulate the color of the membrane itself. If the discharge is large in quantity, you are not *sure* that it comes from the tympanic cavity, but in a large number of instances an excessive discharge comes in part, at least, from the cavity of the tympanum.

APPEARANCES UPON INSPECTION.

There is a profuse ropy mucous discharge. It may be purulent; it may be serous; it may be sanguinolent. Sometimes it will be flocculent, more especially if the patient has granulations or polypi, and probably depends upon the presence of epidermic scales and detached epithelium. The discharge is occasionally of a cheesy consistence, and then it is likely to become more or less agglutinated to the drum-membrane, and requires to be wiped away with absorbent cotton after having been previously syringed. I think you will have observed that but few men in the institution are capable of cleansing an ear as thoroughly and neatly as it should be done. For diagnostic purposes it is of the greatest possible importance

to cleanse the ear very carefully. I advise you to do this under sight aided by the forehead-mirror. Often if the discharge is not all removed, or a few epidermic scales are left, you will be prevented from making an exact examination of the part. When the ear has been properly prepared for examination you will find the membrane more or less reddened, always opaque, grayish in color, dermoid layer mostly or wholly removed by inflammation and maceration. If you will carefully remove the dermoid layer which has not been entirely detached, you will find beneath it a reddened surface which may be dependent, perhaps, partly upon the violence with which you have conducted your manipulations, but principally on the presence of a passive inflammation of the membrane. If the perforation is large, so that you can see the inner wall of the tympanum, it will almost always be found to be red, swollen, and puffy, and will bleed easily. The opposite condition may be present; it it will then be pale, relaxed, swollen but little, and accompanied by a thin serous discharge. The latter are rather bad cases to manage. The rupture in the drum membrane may be single, or there may be several openings. The perforation may be located before or behind the handle of the malleus, perhaps most frequently below the centre of the drum-membrane. The membrane may be completely removed. Frequently we see the kidney-shaped perforation with the handle of the malleus extending into the hilus of this opening.

Another point to which I wish to direct your attention, is the sickle-shaped edge of the drum-membrane remaining. Supposing you are inspecting a reddened surface, and you are in doubt as to whether it is the drum-membrane or the inner wall of the tympanum; you will look for a perforation, and by and by you will find a whitish sickle-shaped body at the periphery of the field. That is what remains of the drum-membrane and will enable you to make the diagnosis of perforation with little or no trouble.

In some cases you will see a pulsation in the ear in the vicinity of the drum-membrane; this is well-nigh diagnostic of perforation, and in probably not more than one in fifty cases will you be wrong. If perforation is not present the drum-membrane is very thin. The symptom is explained in this manner: The vessels are very much swollen and the pulsation becomes visible by virtue of the excessively thin covering of membrane lying upon them.

It is worthy of remark that a small portion of the drum-membrane almost always remains, and that is the part above and about the short process of the malleus.

The ossicles are infrequently removed. If any are absent it is likely to be the malleus, although the manubrium alone may be lost by necrosis. The stapes is the last bone to be removed, and its absence is rarely observed. You may be able to demonstrate the presence of the stapes by means of a probe which touches an immovable bony elevation in the region of the oval window. Occasionally it can be seen as a rounded elevation, slightly above and behind the termination of the handle of the malleus; in other words exactly opposite the termination of the long shank of the incus. It is quite generally believed that destruction of the drum-membrane and loss of the ossicles produces profound deafness, but I would state here that the drum-membrane may be all swept away and the ossicles removed, certainly the malleus and the incus, without greatly impairing the hearing.

Original Communications.

REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM IN CONJUNCTION WITH FREE SUPPORTING DIET, AS MEANS OF DEFENDING THE SYSTEM AGAINST THE DANGERS OF THE OPERATION—ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

PART II.

THIS brings us to the narration of cases of ovariotomy, and I give a series of six, taken without selection, as they presented themselves in my service at the Woman's Hospital within a period of eleven months. From these reports it will be seen that I gradually reached my plan of preparatory and after-treatment, and therefore it will be found carried out to the letter only in one or two of the last cases. The originality or novelty of this treatment, if there be any, will be found mainly in the early and continuous use of quinine and opium per rectum, in conjunction with free and liberal support of the system by oral or rectal alimentation, or both at the same time, as means of preventing or controlling high temperature after ovariotomy.

The results in these six cases are intended to show the value of the plan. All six of the operations were performed in the two small frame cottages situated on the hospital grounds, where the patients were nursed and cared for until all danger had passed—eight to ten days. One week from the completion of the operation being the special period of treatment, the notations of the pulse and temperature for this time were made upon an average once in three hours, but to make these reports as short as possible, only two in the twenty-four hours are here recorded—namely, at or about 6 A.M. and at or about 6 P.M. The quantities of medicines, nutriments, stimulants, etc., given at long, short, or irregular intervals are noted only for the twenty-four hours commencing and ending at 12 o'clock at night. Sulphuric ether was the anæsthetic employed.

CASE I.—[illegible]

Sarah C., of Perth Amboy, N. J.; native of Ireland, aged thirty-five; married; one child; widow thirteen years; about medium statue; dark complexion, black hair, with the *facies ovarica* well marked; was admitted to the Woman's Hospital May 6, 1878. She

stated that the tumor from the first lay to the right side and was the size of a child's head before it began to occasion serious inconvenience; that nine months previously it began to grow rapidly, and that from this date on she gradually lost flesh. Girth below the umbilicus, 34½ inches. Tumor prominent to the right of the median line, though marked dullness found to the left of the latter in the hypogastric and iliac regions. Slight œdema over the abdomen, and protuberance of the umbilicus. But little mobility of the abdominal walls over the tumor. Dullness on percussion over the right loin pointing directly to the corresponding ovary as the seat of the tumor. Case examined by two of my colleagues, and both concurred with me in the belief that the tumor was ovarian.

Operation, May 13th.—At 2 o'clock, with a cloud of carbolic spray falling upon her abdomen, the necessary incision in the linea alba, below the umbilicus, was made and the peritoneal cavity reached. Owing to the extensive adhesions found, and the difficulty of manipulating the tumor, the incision afterward was extended about an inch above the umbilicus. The adhesions were then all torn or separated with the fingers and handle of the scalpel. Then, by successively tapping the several cysts within the tumor containing fluids of varied densities and colors, the whole mass was so reduced that it could be easily drawn out of the abdomen. It proved to be the right ovary as diagnosed, and the pedicle, after being tied with a carbolized ligature, was cut and dropped. Commencing cystic degeneration of the left ovary now being discovered, this was removed in like manner. There was no great loss of blood, but one or two small bleeding vessels in the omentum required ligatures. The greatest care was taken to wipe out and cleanse thoroughly the abdominal and pelvic cavities. The sponging was continued as long as there was any oozing. The wound by mistake was closed with ten plain silk sutures instead of carbolized ones, and then dressed according to the method usually employed by Mr. Lister. Tumor and contents weighed 18½ pounds; it was dermoid in character, and contained both hair and teeth. Duration of the operation, fifty-six minutes.

AFTER-TREATMENT.

Per orem: Milk, ℥ ij. Per rectum: Liq. opii comp., ʒ ss.

Evening: Pulse, 132; temp., 103⅘° F. General condition: Nausea and slight vomiting; neither pain nor tympanitis.

May 14th.—Morning: Pulse, 96; temp., 100⅓° F. Per orem: Beef-tea, ℥ vi.; milk, ℥ xiv.; milk porridge, ℥ x.; whiskey, ℥ ss.; mixture of citrates of potash and lithia every three or four hours. Per rectum: Liq. opii comp., ʒ j. General condition: No pain except in the back; slept well most of the night, and a good deal during the forenoon; urine thick and of a yellowish color. Early in the afternoon symptoms of marked peritonitis began to show themselves.

Evening: Pulse, 120; temp., 103° F.

May 15th.—Morning: Pulse, 100; temp., 102° F. Per orem: Beef-tea, ℥ xvi.; milk porridge, ℥ xviij.; milk, ℥ ij.; whiskey, ℥ iss.; mixture of potash and lithia as before stated. Per rectum: Liq. opii comp., ʒ i. General condition: At 2 A.M., pulse 120; temp., 103½° F. Now commenced the use of cold-water affusions over the abdomen upon Kibbe's cot at 67° F., six given during the day; each time followed by chilliness and a depressed feeling; pulse small and feeble; tympanites and pain over the entire abdomen.

Evening: Pulse, 110; temp., 103° F.

May 16th.—Morning: Pulse, 116; temp., 101¼° F. Per orem: Beef-tea, ℥ xiv.; milk porridge, ℥ xxij.; milk, ℥ xxiij.; whiskey, ʒ vij.; mixture of potash and lithia as before. Per rectum: Liq. opii comp., ʒ i.; sulph. quinine, grs. xxiv. General condition: At 12.45 P.M., when two douches had been given, the pulse and temperature showed an elevation of 126 and 104¼° F. respectively; all the symptoms of violent peritonitis present. After a chill, now lost confidence in the cold affusions and concluded to supplement them with sulph. quinine per rectum, in 8-grain doses. From this time to 10 P.M. patient got eight douches, nearly one upon an average per hour. Now temp. 103¼° F. Douching suspended for the time.

Evening: Pulse, 120; temp., 103¼° F.

May 17th.—Morning: Pulse, 106; temp., 101½° F. Per orem: Beef-tea, ℥ xxxvi.; chicken broth, ℥ xviij.; milk, ℥ vi.; milk porridge, ℥ xx.; whiskey, ℥ iij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒ iiss. General condition: At 6.30 A.M., made an early visit, and found the patient in a state of collapse. A violent chill was upon her, and her extremities were of icy coldness. The blueness of the lips, the chattering of the teeth, and the almost imperceptible pulse at the wrist all pointed to speedy dissolution. This condition was brought about, as was soon discovered, by wet sheets, wet clothing, and neglect of the nurse, for several hours, to refill with hot water the tin cans around the chest and extremities. By prompt attention to the latter, and changing the sheets and clothing, together with free administration of stimulants, the danger was averted. Thus seeing the great danger attending the use of cold-water affusions, and their failure so far to control, or even moderate high temperature, I determined to abandon them entirely, and trust to quinine and opium per rectum, with free nourishment of the system. Up to this time the two medicines had been given separately, but now they were combined. At 1.30 P.M., about twenty-four hours after their commencement, and when only forty grains of the former and one drachm of the latter (liq. opii comp.) had been taken, thorough *cinchonism* manifested itself. Patient now hungry. Pulse and skin fair; urine better. Has not slept much during the day, and is afraid to be left alone.

Evening: Pulse, 118; temp., 100¾° F.

May 18th.—Morning: Pulse, 104; temp., 101° F. Per orem: Beef-tea, ℥ xvi.; chicken broth, ℥ ij.; milk, ℥ xxx.; milk porridge, ℥ xvi. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., ʒ iss. General condition: Has slept but little since morning. Talks to herself, and sings. Says she feels first-rate; urine clear; pulse good; tympanites and abdominal pain less.

Evening: Pulse, 100; temp., 100¾° F.

May 19th.—Morning: Pulse, 90; temp., 100° F. Per orem: Beef-tea, ℥ xxiv.; milk, ℥ xvi.; milk porridge, ℥ xxxii.; chewed and swallowed the juice of a piece of beefsteak. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., ʒ i. General condition: Slept pretty much all night; has some nausea and a little dryness of the tongue; also a little pain. Perspires freely when asleep. Sutures removed, and suppuration found in the tracks of nearly all of them. Patient changed from Kibbe's cot to her bed.

Evening: Pulse, 104; temp., 101° F.

May 20th.—Morning: Pulse, 97; temp., 100¾° F. Per orem: Beef tea, ℥ xvi.; milk, ℥ xl.; milk porridge, ℥ xvi. Per rectum: Sulph. quinine, grs. xij.; liq. opii comp., ʒ iss. General condition: Tongue

still a little dry; less tympanites; frequent desire to urinate, though quality of urine good.

Evening: Pulse, 103; temp., 101 F.

The same general plan of treatment as set forth in the above diary of the week was continued, with such omissions and changes as regards medicines and food as circumstances from time to time demanded, until the seventeenth day of the operation. Now, the quinine and opium given up to this time by the rectum were stopped.

Up to the tenth day of the operation the temperature varied but little from 101° F. Then it fell below 100° F., and the pulse to about 80. But still there continued every evening to be a slight exacerbation of the little fever present, until June 4th, the twenty-second day, when both the pulse and temperature mounted to 100 respectively. This went on for four or five days, and then subsided gradually to the standard of health. This I attributed to the presence of inflammatory products in the peritoneal cavity. During the week of active treatment, nine and a half drachms of liq. opii comp. were taken, and from the time it was commenced, on the third day, eighty-eight grains of quinine; from first to last, twenty-one and a half drachms of the former, and one hundred and ninety grains of the latter were taken. Week's average of pulse, 106; of temp., 101½°. Convalescence finally complete, and the patient discharged cured.

CASE II.—*Both Ovaries Involved—Multi Tumor Myxo-Fibromatous—Ascites—Never Tapped—Absence of Dullness on Percussion over One Loin—Double Ovariotomy with Antiseptic Precautions—Small Incision. Few, but very Resisting Adhesions—Hemorrhage Slight—Shock Considerable—Both Pedicles Ligatured—No Drainage-Tube Used, but a small Tent left in Lower Angle of the Wound—Early Supporting Diet by the Mouth and Rectum—Peritonitis Moderate—Quinine with Opium, Commenced per Rectum Thirty Hours after Operation—No Cachexism—Primary Fever Slight—Secondary High—Pus Discharged through the Wound on the Ninth Day—Peritoneal Cavity Daily Washed out—Protracted Recovery.*

Mary McC., of New York, aged 45, unmarried; short, and of heavy build; lymphatic temperament, with sallow or waxy complexion—was admitted to the Woman's Hospital, May 3d, 1878, presenting an abdominal tumor, with girth below the umbilicus of thirty-seven inches. She stated that a year before admission she first noticed a small tumor low down in the abdomen, and that ever since then she had had pain in the left hip, groin, and corresponding limb; that for six months previous to this time her menstrual flow had been irregular, and sometimes too free; but latterly it had been profuse at times, lasting two or three weeks, for which relief was sought in the St. Vincent Hospital.

Examination showed the tumor to be semi-solid in character, and surrounded by a considerable quantity of fluid in the peritoneal cavity. The precise nature of this floating tumor, for such it was, did not appear clear to my mind, nor were my colleagues, Drs. Emmet and Thomas, who kindly examined the case at my instance, any more decided in their opinions of it. We all agreed, however, upon the two essential points presented by the case: first, that the tumor was connected with the uterus, probably the left side, by a pedicle of no great thickness, and that an operation for its removal was called for. The uterus itself measured three inches, was a little anteflexed, and drawn over to the left side. The marked dullness on percussion over the left loin as contrasted with the right, pointed to the corresponding ovary as the seat of the tumor.

Operation, May 17th.—At two o'clock the operation was performed under the antiseptic spray. Through the small incision made in the peritoneal cavity about a gallon and a half of straw-colored fluid escaped, and thus was the oblong semi-elastic tumor brought into view, lying mainly to the left side, but reaching considerably to the right, above the umbilicus. It was found firmly adherent to the left abdominal wall, and it was only after considerable delay and a process of tearing or gnawing through the points of resistance with the fingers and handle of the scapel, that the mass was finally separated. Only one point was cut with the scissors. The tumor was then tapped with a Spencer Wells's trocar, but no fluid escaped. The instrument was then withdrawn, and one finger after another introduced into the opening, until the whole hand penetrated the mass and reduced it to a mere shell. Afterwards it was easily drawn through the opening, and found to be the right ovary instead of the left, as diagnosed. After tying, cutting, and dropping the pedicle in the usual way, commencing disease of the left ovary was found to exist; its pedicle was treated in like manner. This being done, the fine bleeding points in the omentum were tied and the peritoneal cavity cleansed in the most thorough manner. The patient now became so exhausted as to require cessation of the anæsthetic, and four hypodermics of whiskey (℥ iv.) were given. On the establishment of reaction the abdominal wound was closed with eight to ten waxed carbolized sutures, made to include the peritoneum. A tent of carbolized gauze was left in the lower angle of the wound, and to the whole was then added the Lister dressing.

From the semi-solid or friable nature of the tumor, and the general appearance of its structure, I was inclined to regard it as the colloid variety of cancer; but under the microscope it proved to be of a myxo-fibromatous character, and therefore benign. The weight of the growth was four pounds. Time of the operation, sixty-two minutes.

AFTER-TREATMENT.

Per orem: Immediately after operation brandy-and-water given freely. Afterward brandy, ℥ ij. Per rectum: Beef-tea, ℥ ij. Two hypodermics of Magendie's sol. of morph., given through mistake, instead of liq. opii comp. General condition: Complains of pain in the abdomen, and has some nausea and vomiting. Reaction satisfactory.

Evening: Pulse, 108; temp., 99⅘° F.

May 18th.—Morning: Pulse, 98; temp., 100⅘° F. Per orem: Milk, ℥ iv.; milk porridge, ℥ iij.; brandy, ℥ iij. Per rectum: Sulph. quinine, grs. viij.; liq. opii comp. ℥ ii½; beef-tea, ℥ viij. General condition: Complains still of pains in the abdomen; has acid eructations; urine clear.

Evening: Pulse, 108; temp., 101⅗° F.

May 19th.—Morning: Pulse, 102; temp., 101⅗° F. Per orem: Chicken broth, ℥ iv.; tinct. ginger in five-drop doses. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., ℥ iss.; beef-tea, ℥ x. General condition: Does not vomit, but has frequent eructations, which disturb sleep; has some tympanites and borborygmus; passes flatus now and then.

Evening: Pulse, 100; temp., 100⅖° F.

May 20th.—Morning: Pulse, 88; temp., 101⅘° F. Per orem: Chicken broth, ℥ x.; tinct. ginger. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ℥ iss.; beef-tea, ℥ xvi. General condition: Passes

flatus freely, and has less eructation; sleeps well; menstruates a little.

Evening: Pulse, 82; temp., 100⅘° F.

May 21st.—Morning: Pulse, 80; temp., 99⅘° F. Per orem: Chicken broth, ʒ xxxi.; tinct. ginger. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., ʒ iss.; beef-tea, ʒ xi. General condition: Still menstruates; feels very well in every particular. The gauze tent is removed from the lower angle of the wound. About one ounce of clear, thin, yellowish fluid followed it. The opening was drawn together with an adhesive strip.

Evening: Pulse, 80; temp., 100° F.

May 22d.—Morning: Pulse, 88; temp., 100° F. Per orem: Chicken broth, ʒ xxxij. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., ʒ ij.; beef-tea, ʒ xi. General condition: Stomach quiet; sleeps well; sutures all removed; wound united down to the site of the gauze tent; no suppuration in the tract of the sutures.

Evening: Pulse, 84; temp., 100⅕° F.

May 23.—Morning: Pulse, 92; temp., 100⅕° F. Per orem: Chicken broth, ʒ xxxix.; beef-tea, ʒ xvij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒ ij. General condition: Satisfactory in every particular.

Evening: Pulse, 88; temp., 100⅕° F.

May 24th.—Morning: Pulse, 90; temp., 99½° F. Per orem: Chicken broth, ʒ xix.; beef-tea, ʒ xix. Per rectum: Sulph. quinine, grs. xij.; liq. opii comp., ʒ iss. General condition unchanged.

Evening: Pulse, 92; temp., 99⅘° F.

On the eighth day after the operation the patient was removed from the cottage to the hospital, there being a slight increase of pulse and temperature the previous day. About eighteen hours later—pulse, 105; temp., 103⅕° F.—her condition became exceedingly critical on account of pyæmic symptoms, but, fortunately, now the smaller track of the tent in the lower angle of the wound reopened and gave vent to about one ounce of purulent and very offensive fluid from the peritoneal cavity. This resulted after a couple of days in the dropping down of the pulse and temperature to 72 and 99⅕° F. respectively. The washing out of the peritoneal cavity two or three times daily was now commenced with a weak solution of common salt and a little carbolic acid, as recommended by the late Dr. Peaslee. For twenty days this discharge continued, seemingly from the locality of the left broad ligament, varying in quantity, and at intervals more or less long, from a teaspoonful to half a teacupful. It was, as already stated, exceedingly offensive, and sometimes more so than at others. From the sixteenth to the twentieth day after the operation the temperature again ranged from 100° to 101⅘° F. Then it fell to 99° F., and remained below 100° F. to the complete closure of the wound, which took place on the twenty-eighth day. During the time the wound was discharging, the patient required all the support by the mouth and rectum that it was possible to give. The quinine and liq. opii were continued per rectum, in gradually diminished portions, until the twenty-sixth day of the operation. The quantity of the former taken during the weeks' special treatment was 108 grains, and of the latter 13½ drachms; afterward, of the former 216 grains, and of the latter 22 drachms, making in all, from first to last—quinine, 324 grains, and liq. opii comp., 35½ drachms. Week's average of pulse, 92; of temp., 100° F.

The patient called upon me at my office about five months after the operation, and said she never felt better. To all appearances she was in robust health. After recovering from the operation the uterine discharge ceased, and up to this date showed no indication of reappearance.

CASE III. *Unilocular Cyst of Right Ovary Never Tapped—The Value of Dulness on Percussion over one Loin as Diagnostic of the side of the Tumor Confirmed—Ovariotomy with Antiseptic Precautions—Small Incision—Adhesions Unimportant—But little Loss of Blood—No Drainage Tube—Pedicle Ligatured—Shock from Operation Considerable and Reaction Slow—Free Stimulation—Early and Continuous Support of the System by the Mouth and Rectum—Peritonitis Mild—Quinine with Opium per Rectum Commenced sixteen hours after Operation—No Cinchonism—Fever Slight—Speedy Recovery.*

Mrs. E., of New York, aged 65; tall and slender; mother of two married daughters; widow thirty years; *facies ovariana* pronounced; was admitted to the Woman's Hospital, October 23, 1878, with girth of abdomen thirty-nine inches. She was very much run down in health, and bore the impress of long suffering. First noticed the tumor eighteen months previously in the right side, and within the last eight months lost eighteen pounds in weight. Tumor movable. Fluctuation pronounced. Dullness over right loin. Diagnosis clear. Never tapped.

Preparatory treatment consisted in regulation of the bowels, daily tepid baths with vaseline inunctions and nourishing diet, with free allowance of brandy.

Operation, November 1.—At two o'clock the operation, under the carbolic acid cloud, was performed. Small incision. One or two slight omental adhesions. Cyst tapped with the Wells trocar and drawn through the wound. Pedicle as usual pierced, tied with carbolized ligatures, cut, and dropped without hindrance. Tumor of the right side as diagnosed. Peritoneal cavity sponged out until all oozing of blood ceased. Wound closed with waxed carbolized sutures, and then dressed antiseptically. Shock of the operation considerable. Free administration of brandy required. Weight of tumor and contents, twenty-seven pounds. Duration of the operation, twenty-seven minutes.

AFTER-TREATMENT.

Per orem: Brandy given *ad libitum* for several hours, and then at intervals of three hours. Per rectum: Liq. opii comp., ʒ i. General condition: Patient suffers considerably from shock of the operation. She rallies slowly under the free use of brandy. Pulse feeble for several hours. No nausea or vomiting.

Evening: Pulse, 88; temp., 96½° F.

November 2d.—Morning: Pulse, 92; temp., 98½° F. Per orem: Milk porridge, ʒ xviij.; brandy, ʒ ij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xxiij.; liq. opii comp., ʒ iij.; beef-tea, ʒ ij. General condition: Complains occasionally of pain. Has recovered entirely from shock of the operation. Pulse full and soft. Skin moist. Stomach still quiet.

Evening: Pulse, 96; temp., 98⅕° F.

November 3d.—Morning: Pulse, 84; temp., 98⅕° F. Per orem: Beef-tea, ʒ iij.; milk porridge, ʒ ix.; brandy, ʒ xiij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., ʒ iss.; beef-tea, ʒ iv. General condition: Slept well during the night. Has no pain. Pulse full, soft, and regular. Skin warm and pleasant. Urine drawn every six hours and is clear. No tympanites.

Evening: Pulse, 85; temp., 99° F.

November 4th.—Morning: Pulse, 76; temp., 98° F. Per orem: Beef-tea, ℥vi.; milk, ℥ij.; milk porridge, ℥v; brandy, ℥xij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., ℥ss; beef-tea, ℥ix. General condition: Slept nearly all night. Had to be waked to take medicine and nourishment. Pulse regular, but not strong. Skin soft; urine clear; perspires while sleeping. This evening sleep is disturbed and there is a little restlessness. Opium suspended. Neither tympanites nor borborygmus.

Evening: Pulse, 74; temp., 98° F.

November 5th.—Morning: Pulse, 72; temp., 97⅞° F. Per orem: Beef-tea, ℥xi.; milk porridge, ℥xviij.; brandy, ℥x. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., ℥ss.; beef-tea, ℥viij. General condition: Less restless; sleeps very well; pulse and skin good; appetite and digestion good; urine clear and normal; no tympanites; tongue a little dry and coated; very cheerful.

Evening: Pulse, 74; temp., 98¼° F.

November 6th.—Morning: Pulse, 76; temp., 98¼° F. Per orem: Beef-tea, ℥xij.; milk, ℥vi.; milk porridge, ℥vi.; brandy, ℥xiv. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ℥i.; beef-tea, ℥xij. General condition: Sleeps soundly; pulse and skin soft; passes the urine a little more frequently, which is slightly cloudy; slight tenderness of the abdomen, but no tympanites; no rumbling of the bowels or distress in the abdomen of any sort.

Evening: Pulse, 76; temp., 98¼° F.

November 7th.—Morning: Pulse, 72; temp., 98¼° F. Per orem: Beef-tea, ℥x.; milk, ℥vi.; milk porridge, ℥ix.; brandy, ℥xij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ℥i.; beef-tea, ℥xvi. General condition: Satisfactory in every particular; sutures removed; union of the wound found to be complete, excepting one or two superficial points; scarcely any discharge; only from one suture was there a show of pus. Antiseptic dressings removed.

Evening: Pulse, 78; temp., 99¼° F.

November 8th.—Morning: Pulse, 72; temp., 98¼° F. Per orem: beef-tea, ℥xvij.; milk, ℥xxj.; milk porridge, ℥viij.; brandy, ℥viij. Per rectum: Sulph. quinine, grs. xviij.; liq. opii comp., ℥i.; beef-tea, ℥iv. General condition unchanged.

Evening: Pulse, 80; temp., 98¼° F.

The same general plan of treatment was continued, excepting the quantity of opium, which was diminished and given at longer intervals. On the thirteenth day after the operation the patient received an enema of warm water, containing a little common salt and castile soap, which resulted in a free movement of the bowels. On the fourteenth day she was removed from the cottage to the hospital building. Now quinine and opium per rectum were discontinued, but the former was given a while longer thrice daily per orem, in two grain doses, as a tonic. During the week's treatment 131 grains of quinine and 10½ drachms of liq. opii comp. were taken, and afterwards 100 grains of the former and 7 drachms of the latter, making in all: quinine, 240 grains, and liq. opii comp., 17½ drachms. Week's average of pulse, 86; of temp., 98° F. Patient discharged cured.

Case IV.—*Multilocular Cyst of Left Ovary.—Ovariotomy.—Recovery.*—[illegible] Mrs. T., of New Jersey, aged 47 years. German, medium statute; dark complexion; black hair and eyes; married 27 years; never pregnant; was admitted to the Woman's Hospital November 24, 1878, with girth of the abdomen measuring thirty-nine inches. She first noticed enlargement [illegible] about a year previously. Menstruation was irregular but regular before that date. Afterwards it became irregular, and metrorrhagia was the rule. The growth from the first was rapid. In the course of six months it was tapped twice. The first time two gallons and a half were taken, and the second one and a half. Fluid very dark-colored. During the autumn had several attacks of malarial fever, for which she took quinine largely, and since then has lost flesh rapidly. As to the diagnosis, one of my colleagues, who examined the case with me, thought the tumor was fibro-cystic; and, indeed, I thought so myself at first. The metrorrhagia and *facies uterina*, both of which existed in a marked degree, certainly warranted this supposition. Further examination and study of the case, however, satisfied me of the error of this opinion, and led me to conclude that the tumor was a compound cyst of the ovary, most probably the left, and that its surrounding adhesions were extensive and strong. Then dulness on percussion over the left loin. Up to within five or six days of the time set for the operation the patient had a metrorrhagic flow about as usual, though attended with but little elevation of pulse and temperature. From this time on, ten or twelve grains of quinine were given daily, while the patient was otherwise prepared for the operation, as by warm baths, vaseline inunctions, and the unloading of the bowels.

Operation, Dec. 16th.—The [illegible] was commenced at two o'clock by small incision. After tapping successively the several cysts of the tumor, and separating with the fingers the anterior and lateral attachments of the latter, which were quite resisting, there was still found behind it one point of adhesion to the mesentery, so extensive and unyielding as to require for its separation not only the greatest force of the fingers and handle of the scalpel, but the greatest care to avoid injury of the adjacent parts. The last [illegible], the tumor in its collapsed state was easily drawn through the wound. It proved to be of the left ovary, as previously diagnosed. The pedicle was secured in the usual way. There being considerable oozing of blood, especially from the mesentery, sponging of the peritoneal cavity was continued for some minutes. The wound was then closed with carbolized sutures, made to include the peritoneum, and the external antiseptic dressings were applied. Weight of the tumor and its contents, 17½ pounds. Duration of the operation, fifty-seven minutes.

After-Treatment.—Per orem: Nothing. Hypodermic of ℥v. of Ma[illegible] and 2 minims Pulv. Ipecac. Sulph. [illegible] grs. xx; liq. opii comp. ℥ij; Nothing [illegible]

General condition: Has a good deal of pain; vomits a little, and then moans continually. Pulse good.

Evening: Pulse, 108; temp., 99° F.

Dec. 17th.—Morning: Pulse, 104; temp., 98⅘° F. Per orem: Milk, ʒ iij.; milk porridge, ʒ xij. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., ʒ iijss.; beef-tea, ʒ iv.; mashed beef and pancreatine, ʒ viij. General condition: Some pain; sleeps nearly all the time; skin warm and pleasant; pulse full and strong; feels a sense of fulness in the epigastrium; urine drawn every six hours; normal in quantity and color; menstruation appears; *cinchonism* at the end of eighteen hours.

Evening: Pulse, 120; temp., 100⅘° F.

Dec. 18th.—Morning: Pulse 108; temp., 100° F. Per orem: Milk porridge, ʒ x.; brandy, ʒ ss.; tinct. ginger occasionally. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., ʒ ij.; mashed beef and pancreatine, ʒ xvi. General condition: Slept a good deal during the night; skin warm and pleasant; pulse full and soft; has some hiccough and nausea; once vomited a greenish-looking fluid; has no pain, but feels weak; urine of claret color; four to six ounces passed every six hours; some tympanites and a little abdominal tenderness. Nourishment by the mouth stopped for the present.

Evening: Pulse, 102; temp., 99⅘° F.

Dec. 19th.—Morning: Pulse, 104; temp. 99⅕° F. Per orem: Brandy, ʒ iij.; coffee and milk, ʒ ij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., ʒ ij.; mashed beef and pancreatine, ʒ xiv. General condition: Sleep is interrupted, though sufficient; some headache; considerable tympanites; has eructation, and vomits a good deal of greenish fluid; tongue a little dry; again has *tinnitus aurium*, and with it slight *narcotism;* pulse and skin good; nourished entirely by the rectum; skin moist and soft.

Evening: Pulse, 102; temp., 99¾° F.

Dec. 20th.—Morning: Pulse, 108; temp., 98½° F. Per orem: Brandy, ʒ i.; toast water, ʒ v.; tinct. ginger; Hoffman's anodyne, ʒ iss. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., ʒ iij.; mashed beef and pancreatine, ʒ xiv. General condition: Drowsy, and sleeps nearly all the time; still has some hiccough, and occasionally vomits a little dark-greenish fluid; tympanites continues; hysterical at times; cries for her husband, and wants beer to drink; urine normal; skin moist and pleasant; pulse good; pupils slightly contracted.

Evening: Pulse and temp. not stated.

Dec. 21st.—Morning: Pulse, 104; temp., 99⅕° F. Per orem: Milk porridge, ʒ v.; toast water, ʒ vij.; Hoffman's anodyne, ʒ ss.; Magendie's sol. hypodermically, ℥vij., owing to inability of the rectum to retain. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒ ss.; mashed beef and pancreatine, ʒ vi. General condition: Sleeps a good deal; still a little nauseated, but no vomiting; passed from the rectum to-day one or two portions of the emulsion, and one portion of quinine and opium. Enemata of all sorts stopped at the regular hours for the present; food by the mouth increased; otherwise condition is most favorable; pulse good; skin moist.

Evening: Pulse, 108; temp. 99° F.

Dec. 22d.—Morning: Pulse, 112; temp., 98⅗° F. Per orem: Milk porridge, ʒ xi.; toast water, ʒ ij.; Hoffman's anodyne, ʒ ss.; tinct. ginger; beef-tea, ʒ i. Per rectum: Sulph.quinine, grs. xxx.; liq. opii comp., ʒ ij.; mashed beef and pancreatine, ʒ viij. General condition: One portion of quinine and opium rejected by the rectum; hysterical excitement continues, but otherwise the symptoms are better; bowels moved once; pulse, skin, and urine satisfactory; has still some hiccough and eructations.

Evening: Pulse, 114; temp., 98½° F.

Dec. 23d.—Morning: Pulse 112; temp., 98° F. Per orem: Chicken broth, ʒ i.; milk porridge, ʒ v.; milk and lime-water, ʒ i.; brandy, ʒ ij; toast water, ʒ iv.; Hoffman's anodyne, ʒ i.; Magendie's sol. morphia hypodermically, ℥viij., because rectum will not retain anodyne. Per rectum: sulph. quinine, grs. x.; liq. opii comp., ʒ i.; mashed beef and pancreatine, ʒ viij. General condition: Does not feel so well; more or less restless; bowels have moved once or twice; urine voided in bed several times during the day; dose not like to take food by the mouth; sutures removed, and adhesive strips applied with renewal of abdominal compress. Union of the wound throughout, excepting one small superficial point, with no suppuration in the tracks of the sutures.

Evening: Pulse, 112; temp., 99½° F.

For two days longer the same course of treatment was pursued, when the pulse, for the first time in nine days, dropped below 100. After this the quantity of quinine per rectum was diminished, and a few days later given by the mouth as a tonic. On the tenth day the patient was removed from cottage to the hospital building, and allowed to take all her nourishment by the mouth. For several days after this there was slight irritability of the bowels at times, and an occasional return of the hysterical symptoms; but the general tendency was to a satisfactory convalescence. Quantity of quinine taken per rectum during the first week after the operation, was 210 grains, and of liq. opii comp., 15¾ drachms, with three hypodermics of Magendie's sol. of morphia. Afterward, by the rectum and mouth, 91 grains of quinine, and 5¾ drachms of liq. opii comp. In all, 301 grains of the former, and 21½ drachms of the latter. Week's average of pulse, 108; of temp., 99° F.

Patient discharged cured.

(To be continued.)

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Items of Treatment.

ASCITES—DISPLACEMENT OF THE HEART.

The following case was interesting, chiefly because it illustrated displacement of the heart, by an accumulation of fluid in the abdominal cavity.

A male patient, æt. 40 years, entered the hospital January 7, 1879. When admitted his abdominal cavity was distended with fluid. His urine had a specific gravity of 1024, was alkaline, and contained neither albumen nor casts. The accumulation of fluid was so great that the heart was displaced. The patient was tapped, but the fluid had reaccumulated rapidly, and at the time of this note the heart was so displaced that the apex-beat was above the nipple upon the left side.

There was no evidence of cardiac disease. Such displacement of the heart by an accumulation of fluid in the abdominal cavity, was regarded as quite unusual, and showed that the patient had a feeble diaphragm. In most patients the pressure in ascites is exerted at the expense of the anterior abdominal walls chiefly. The liver is displaced upward, but not in the same

proportion as is the heart. The area of hepatic dulness is diminished to two and three-fourths inches. The man probably had cirrhosis of the liver, and the prominent symptom was the dropsy, which came on very rapidly. His abdomen began to swell about one month before admission to the hospital. His feet were also swollen.

The accumulation of fluid in the abdominal cavity in this case was more than usually dangerous because of the tendency to push the diaphragm upward. The leading symptom to be treated was the dropsy; and tapping early, and frequently repeated, was the plan recommended. At the same time such measures were to be adopted as improved and sustained general nutrition.

IDIOPATHIC INFLAMMATION AND THROMBOSIS OF THE SUPERFICIAL VEINS OF THE LEGS.

A male patient, forty years old, who had never had rheumatism, denied venereal, and had never been intemperate, was admitted to the hospital December 10, 1878, complaining of swelling and stiffness of the legs without pain. The chief point of interest in the case was the inflammation and thrombosis of the superficial veins of the legs without known cause. The veins could be felt like cords as the finger passed over them. The treatment had not been energetic. While the inflammation was going on the patient was kept in bed. After the inflammation had subsided, and nothing remained except the œdema and the thrombosis, the legs had been bandaged, and the patient had been improving. The rubber bandage was recommended, for by it the œdema could be almost entirely prevented, and the cure of the case could be made almost complete.

HEMORRHOIDS—OPERATION—DRESSING—METHOD OF CONTROLLING HEMORRHAGE.

A male patient was suffering from internal hemorrhoids. They exhibited the raspberry appearance, and were regarded as the artero-capillary variety. For the purpose of effecting a radical cure they were treated with the double ligature. The sphincter was not dilated. Treatment after the operation was believed to be sufficient to prevent spasm of the sphincter. In cases in which the pile could not be easily surrounded, Sims's speculum was recommended. The operation being completed, a suppository containing opium and belladonna was introduced well above the internal sphincter. A large piece of lint smeared with vaseline was placed over the anus and the cleft of the nates. The cleft was then packed with cotton until it was filled to a level with the tuber ischii; over that a compress was placed, and the whole was retained in position by means of an ordinary T-bandage.

But suppose *hemorrhage* should occur from the stump of the pile or elsewhere? A plan of treatment was recommended which, although not new, is perhaps worthy of description. Of course, effort might be made to tie the bleeding vessel. But the plan recommended as the better one was first to take a cone-shaped piece of sponge, and make it hollow; then pass a thread from the inside through the side of the sponge, over the apex of the cone, and return it to the cavity in the sponge. In that manner a loop was made which placed the sponge within the control of the surgeon. It was then to be slightly moistened, compressed, and pushed up as high as possible in the rectum upon the tip of the finger. Pieces of lint were then to be carried in until the cavity in the sponge was filled. As soon as filled, traction was to be made upon the strings, when the sponge would spread out and press against the sides of the rectum. In that manner flow of blood upward was prevented, and the compress already described prevented any discharge from the anus. In ordinary cases it was thought advisable to leave the sponge *in situ* for thirty-six or forty-eight hours. If hemorrhage returned, the sponge could be replaced.

ANEURISM OF THE AORTA—TREATMENT BY IODIDE OF POTASSIUM.

A male patient was the subject of aneurism affecting the junction of the transverse with the descending portion of the aorta. After he had taken iodide of potassium in fifteen-grain doses three times a day for a short time, he said that he felt much better, and the heaving movement was distinctly less than before the remedy was commenced.

PERICARDITIS—PLEURISY WITH EFFUSION—DISAPPEARANCE OF AN ENDOCARDIAL MURMUR.

A boy, fourteen years of age, had suffered from rheumatic pericarditis, and at the same time and upon the same side from pleurisy with effusion. Recovery took place, and the patient walked about the hospital feeling nearly as well as ever.

The apex-beat, during the time the pleuritic effusion was present, beat in the fourth intercostal space. All evidence of liquid in either the pleural or the pericardial cavity had disappeared, and the apex-beat was in the fifth intercostal space.

One remarkable feature in the case was the following: a double pericardial friction murmur was developed, and also an endocardial, a mitral systolic non-regurgitant murmur. The endocardial murmur had disappeared, and in that respect the case was regarded as exceptional.

It was probable that complete adhesion would occur between the pericardial surfaces, and the question arose, how much practical importance was there to be attached to that fact? The answer was, that formerly it was considered as a serious result, but latterly the conclusion had been reached that, if there were no coexistent valvular lesions, the heart would continue to perform its functions very well, notwithstanding the pericardial adhesions.

Progress of Medical Science.

NEURASTHENIA AND WOMB-DISEASE.—According to Dr. Goodell, neurasthenia in women manifests itself by hysteria, spinal irritation, and a crowd of reflex symptoms, among which those of a uterine complexion often predominate. This neurosis probably consists essentially in mal-nutrition of nerve-centres, followed by disturbances in the circulation from weakened innervation (local anæmia and hyperæmia). The anæmia of the genital organs is exhibited by amenorrhœa, by neuralgic and hysterical pains; the hyperæmia by congestion, dysmenorrhœa, menorrhagia, uterine flexions, and dislocations, and a variety of subjective phenomena.

Thus, many disorders of the reproductive organs are merely the local expressions of the general neurosis. Based upon this principle, Dr. Goodell adopted Weir Mitchell's plan of treatment, as laid down in his work on "Fat and Blood, and How to Make Them," for the class of cases referred to above, and combined this treatment with a local one in those cases of undoubted uterine disease in which the con-

stitutional symptoms were out of all proportion to the local lesions. Dr. Mitchell's treatment consists, as is well known, of rest, massage, electricity, seclusion, and feeding. Dr. Goodell reports the results in several cases under his care, of which the following is an example:

A girl, of twenty, who had been an invalid for five years, was put under treatment on March 11th. At the age of fifteen the patient began to suffer from dysmenorrhœa, back-ache, ovarian hyperæsthesia, frequent attacks of hystero-epilepsy, disturbances of the bladder, obstinate costiveness, and loss of all appetite. About a year previously the patient had been treated for anteflexion, and a tent was introduced into the cervix, which lighted up a very severe attack of peritonitis, after which she became bed-ridden. Upon examination, March 10th, the uterus and ovaries were very tender, the former turgid, anteflexed, and bound down by adhesions. On account of the disproportion between the symptoms and the local lesions, Mitchell's treatment was advised, and entered upon the next day. The patient was not allowed to read or write, or see any of her friends, and was at once put on a skimmed-milk diet. The medicinal treatment consisted of the administration of Trommer's extract of malt, dialyzed iron, valerianate of zinc, and an occasional aperient pill. On March 18th she drank four quarts of milk; on March 28th she took four and a half quarts, three boiled eggs, and over two pounds of broiled chicken. Massage and electricity were likewise employed in the manner recommended by Dr. Mitchell. During the forty-five days of treatment she drank 208 quarts of milk, and averaged two and a half eggs daily. During this period she gained twenty-two pounds in weight, and all bad symptoms disappeared entirely. The patient has remained perfectly well ever since. Although rapid increase in flesh is usually regarded as a very trustworthy token of returning health in these cases, yet the success of the treatment does not always depend upon it, as shown by a number of cases treated by Dr. Goodell.

The symptoms in these cases were apparently due to uterine disease, yet the essence of the disease lay in the exhaustion and lack of nutrition of the nerve-centres. The patients give a history of exhaustion, wakefulness, great nervousness, constant back-ache, and ovaralgia. The objects to be secured, therefore, are, nutrition, sleep, rest of body and mind, and freedom from pain. All these indications are met by the plan laid down by Dr. Mitchell, and indicated in the history of the case furnished in the present article. —*Gynecological Transactions*, vol. iii., 1879.

Charcot on the Somnambulic and Cataleptic Condition in Hysteria.—The patient, a hysterical woman of 21, in one of Charcot's wards, was directed to fix her eyes upon a bright light. In a few seconds she became cataleptic and completely anæsthetic. The limbs were flexible, and assumed any position in which they were placed by the operator. If the hands were placed near the lips, as if in the act of throwing a kiss, the features would assume an "osculatory" expression; if the hands were placed as in a begging position, the face assumed a corresponding expression, etc. These phases have been termed suggestive phenomena, and last as long as the impression of the bright light upon the retina continues.

If the light is removed a condition of somnambulism (hysterical lethargy, Charcot) is produced. If the patient were standing (in the cataleptic state) she would fall backward, the head thrown back, the neck arched prominently. The eyes are closed, and a whistling inspiration is heard, accompanied by noisy movements of deglutition. Muscular hyper-excitability is induced in this condition; the slight friction of the skin will produce contraction of the underlying muscles. Another feature of this condition is a constant motion of the upper eyelid, convulsions of the globe of the eye in various directions, and persistent anæsthesia. If the patient be loudly spoken to she will arise, direct herself towards the person speaking; she will stand, sew, write, etc.

The eyes are, however, closed or partly closed (the muscular sense seems to replace the sense of sight, M. Azam). The patient answers questions and the intellect seems to be exalted. She is restored to consciousness by merely breathing or blowing on the face, or pressing on an ovary, and has no recollection whatever of what has transpired.—*St. Louis Courier of Medicine*, March, 1879.

Notes on the Use of the Hæmacytometer in Anæmia.—We must remember that the hæmacytometer does not compute the number of blood-corpuscles in the body, but rather the proportion which the corpuscles bear to the serum of the blood, and that a great deal also depends upon the quality of the corpuscles, *i. e.*, upon the amount of hæmoglobin which they contain.

In ten carefully examined cases of anæmia the average of the red corpuscles at the onset of treatment was 62 per cent., and in the three worst cases the average was less than 46 per cent. None of these patients were laid up by the disease; and they were all able to walk to the out-patient room.

The corpuscular richness of the blood is seldom accurately represented by the appearance either of the skin or the mucous membranes. In an apparently extreme case of anæmia the patient was confined to her bed, the pulse was very frequent, there were numerous syncopal attacks and frequent vomiting, the face was nearly as pale as a sheet, and the conjunctivæ almost blanched; there was some suspicion of hysteria. Examination of the blood showed the number of corpuscles to be not far from normal, so that the case was not one of anæmia. Under appropriate treatment the patient was well in a fortnight.

Again, the corpuscles reach the normal amount some time before the patient's symptoms have disappeared; i. e., the number of corpuscles may be increased out of all proportion to the increase in their hæmoglobin.

The marked effect of iron in increasing the number of the red corpuscles was well seen in a case of surgical anæmia. A considerable portion of the skull was removed by operation in a patient with a fractured skull. Secondary hemorrhage occurred, at the commencement of which the corpuscles averaged 76 per cent. The hemorrhage continuing, they decreased in a week to 50 per cent., when the common carotid was ligatured. The hemorrhage then ceased but the corpuscles nevertheless diminished in amount to 38 per cent., three days after the operation. The patient was then ordered ferrum redactum, five grains daily, and a nourishing diet. In two days the corpuscles had risen to 50 per cent. and in a fortnight to 100 per cent.—*Lancet*, May 10, 1879.

Excision of Papilloma of Bladder.—M. C., æt. 34, was admitted to St. Mary's Hospital, under the care of Mr. Norton, suffering from the effects of long-continued hemorrhage from the bladder. On examination per urethra, a tumor one inch square, coated with phosphatic calculus, but not much raised above the mucous membrane, was discovered occupying the

trigone, about half an inch from the sphincter. It was evident that the tumor must be removed, and the patient submitted to the risks attendant upon a severe operation, or she must be left to endure the tortures brought about by the contraction of the bladder upon the growth after micturition, and with the certainty of an early death from hemorrhage, or from blood-poisoning. It was impossible to remove the growth through the urethra, and it was decided to cut the mass away by opening the vagina. It was considered that the growth could not be cleared without cutting through the urethra, and the operation was performed as follows: The spring-scissors were inserted, one blade into the bladder nearly up to the tumor, and the other into the vagina, and closed; the front wall of the vagina was then incised centrally to within half an inch of the uterus, and the vaginal wall, which was found not to be incorporated with the growth, was dissected from the bladder; the growth was then seized with the vulsellum forceps and drawn forward, and was then excised by the scissors and removed. Bleeding was arrested by the actual cautery, and the lateral flaps of the vagina approximated by sutures. To prevent further hemorrhage a catheter was inserted, and the bladder compressed by plugging the vagina; no hemorrhage of importance took place. The temperature remained below normal, and the pulse rose to 120. Severe vomiting persisted until the tenth day after the operation, when she was considered out of danger. On the twelfth day, when apparently in health, she vomited, and shortly afterward fell asleep, in which sleep she died from syncope. At the autopsy the wound was green, and sloughing upon the surface, but healthy immediately beneath. No peritonitis, or cellulitis was present, nor any thrombosis of vesical, pelvic, or iliac veins. A microscopical examination showed the tumor to be a papilloma. Since writing this case Mr. Norton had operated upon a second case of tumor of the bladder, which had completely recovered from the effects of the operation.—*The Medical Press and Circular*, May 14, 1879.

Antagonistic and Antidotal Powers of Chloral Hydrate.—Dr. Husemann found that in rabbits chloral hydrate acted as an antidote to strychnine, to the combination of strychnos bases known in commerce by the name of leucine, and to thebaine, which produces tetanic symptoms, and at the same time diminished sensibility; the chloral controlled the spasms, and, within certain limits, warded off death. On the other hand, when non-lethal doses of chloral hydrate were administered to rabbits poisoned with ammonium chloride, the fatal termination resulted more rapidly than when lethal doses of either ammonium chloride alone or of chloral alone were employed, probably because of the combination of the paralyzing effects of both drugs on the respiratory centre. The spasms excited by the ammonium chloride were, it is true, relieved or even entirely controlled by non-lethal doses of chloral hydrate, but still death ensued.

Dr. Husemann found the antidotal power of chloral hydrate to be much less against codeine than against picrotoxin. The chloral controlled the spasms and saved life when only the minimum fatal dose, or the minimum dose increased by one-half of codeine was administered, but it was unable to do so when double the minimum dose was given. On the other hand, the life of the rabbit could be saved by chloral when even five times the minimum lethal dose of picrotoxin had been administered. Hence it would be incorrect to assume that because chloral is a powerful antidote to picrotoxin, it is equally so to the other so-called cerebral irritants.

Against calabarine the action of chloral is the same as against codeine; in poisoning by baryta, however, it is not even able to relieve the symptoms, far less to save life. In poisoning by carbolic acid it does not completely control the spasmodic muscular movements, nor is it able to ward off death, even when only the minimum lethal dose of the acid has been administered. On the other hand a combination of lethal or of non-lethal doses of carbolic acid and chloral hydrate causes a more excessive depression of temperature than is observed in acute poisoning by carbolic acid, or by chloral alone.—*Allg. Med. Cent. Zeit.*, March 8th.

Oyster-Shuckers' Corneitis.—Under this name Dr. McDowell, of Baltimore, describes a peculiar form of ophthalmia which attacks oyster-shuckers alone. The disease presents itself as a dense pearly opacity, about the size of a small pin-head, almost perfectly circular shape, and located at or near the centre of the cornea. The outline of the spot is sharply defined, but it is surrounded by an area of hazy infiltration, a line or a line and a half in diameter, which fades off insensibly into clear corneal tissue. The minute, pearl-like central opacity looks most deceptively like a small fragment of shell imbedded beneath the epithelial layer. The condition is usually attended by marked circumcorneal scleral injection, photophobia, lachrymation, ciliary neuralgia, etc. The cornea at the point of the dense central opacity, in the vast majority of cases, takes on ulcerative action, but the ulcer rarely spreads to any dangerous extent either in depth or circumference. In a few cases, however, where treatment was too long deferred, Dr. McDowell observed necrosis of the whole central portion of the cornea; in these cases, after a long period of high inflammatory action, the destroyed tissue was replaced by a dense and permanently opaque cicatrix. When seen sufficiently early, the disease can usually be arrested in from three to seven days. All of the acute symptoms will subside in that time, but the opacity disappears very slowly, weeks being always required for the complete resorption of the effused products. The treatment is the same as for the ordinary forms of corneal inflammation and ulceration.

The diagnosis of this affection from a traumatism, is at first very difficult, especially as the patients often assert that "a piece of shell flew into the eye." The appearances are so characteristic, however, that a mistake is not likely to occur after the affection has once been recognized. Dr. McDowell is disposed to attribute the disease to a specific toxic element contained in the slime and dirt which coats the oyster-shell, and which is introduced directly into the eye.—*Virginia Med. Monthly*, Febr.

A Training-School for Nurses has been established in Washington, D. C. It has a full corps of lecturers, and is otherwise thoroughly organized for its work. There are now nine such schools in the United States; three in New York, three in Boston, one in Philadelphia, one in New Haven, and one in Washington.

Memorial to the late Dr. Murchison.—A movement is on foot to raise a memorial to the late Dr. Murchison. St. Thomas's Hospital and the University of Edinburgh are especially promoting it.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 26, 1879.

THE PREVENTION OF YELLOW FEVER.

THE occurrence of cases of yellow fever in the Southwest has called forth the best efforts of the National Health Board to stay its progress and prevent the spread of panic. Ever since the organization of this body its members have been active in gaining all the possible information regarding the origin and spread of yellow fever, particularly in the districts where the disease prevailed last summer. As the result of such investigations the Board has settled upon some general principles of action which are calculated to meet any emergencies which may arise.

Although acting as an advisory body to the different State Boards, it has the power, when the latter fail to act, and when there is recognized danger of an epidemic, to use such means and to resort to such measures as are best calculated to insure the requisite safety. It will also be recollected that with a liberal appropriation at its command it has the facilities for aiding pecuniarily such districts as are unable to help themselves. This gives a force to any recommendations made by the Board which entirely circumvents any question of States' rights, and leaves local health authorities to accept them independently and act accordingly.

The design of the National Board is to give such general directions as may be required, and which, for the most part, embody the mildest restrictions concerning local sanitation and quarantine as seem to be demanded. This is erring on the right side, and while it gives no cause for any show of dissatisfaction from the State authorities, it leaves the latter to exercise any extra power which they may deem to be necessary. Indeed, the execution of the recommendations is left to State officers, all that is necessary being that said officials shall be dutiful and competent.

In regard to the matter of quarantine, the present conclusion appears to be that each seaport town must have regulations of its own consistent with the character of its trade, the condition of its harbor, and the facilities for carrying out details. As the result of much discussion, the question has very properly, we think, been left in that state. With inland quarantine a proper understanding is not so easy regarding the means to be adopted for its proper establishment. There are so many ways by which such rules can be evaded that, at first sight, any attempt to establish a practical system would appear to be impossible. Still, a good beginning is made in the recent recommendations by the Board regarding railroad travel, the aim being to disinfect the cars and change them as often as possible when used for any long distance on a road.

Except under extraordinary circumstances there is to be no interruption in travel, care being taken only to guard against the spread of the disease from town to town, or among the passengers along the line. Every train leaving an infected town is to be inspected by a competent medical man and a certificate of the results of the same is to be given to the conductor, and also a certificate to each passenger. No fever patients are allowed on any train, and suspicious cases are to be quarantined. The cars and baggage are to be thoroughly disinfected with sulphurous acid gas before the time of departure, and no upholstered cars are to be used unless, after a thorough disinfection, they are exposed to the open air for at least twenty days. At a point not less than five miles from the place of departure, there shall be an entire transfer in the open air of passengers and baggage to other cars, which cars are not to enter an infected district. After a journey of fifty miles from the point of departure another transfer of freight and passengers is made, the cars disinfected, and then returned. Mail matter is to be exposed to a temperature of 250° F. before being sent from these districts. In case an infected place is on the line of a railroad, trains may pass through, but will not be allowed to stop within a mile of the station, at which place passengers with proper inspection certificates may be taken. No train having a certificate of such inspection, and no passenger having a proper certificate that he was free from disease and that his baggage was properly disinfected, shall be interfered with by any municipal or other local systems of quarantine.

It will be seen that while everything is done to prevent the spread of the disease along the lines of railroad travel, the latter is not interrupted and the passengers are subjected to the least possible inconvenience. Again, the regulations have the great advantage of being reasonable, of appealing to the common sense of the travelling public, and of thus insuring their willing co-operation. No possible objection can be urged against the measure, except perhaps on the part of the railroad companies, who may be put to some inconvenience thereby. Still, there is no doubt that they will be willing to accept such conditions of travel,

under the authority of the National Board, rather than run the risk of quarantine by local authorities at any given point along their lines. Herein, by the way, the great utility of a National Board is shown, in that it is competent to reduce inland quarantine to a system which is uniform throughout all the infected districts, and to protect the travelling public from any imposition by local authorities. Its recognized authority also, and the publicity which is given to its recommendations, are such as insure respect, attention, and obedience from all parties concerned. In fact, the public at large is prepared to act upon any reasonable suggestion from any such body having its confidence, and having the means to enforce obedience to regulations. This being the case, it is with peculiar satisfaction that we notice a late recommendation of the Board to the effect that it is of the utmost importance that all towns, whether in suspected districts or not, should be under strict sanitary regulations, and that everything should be done to insure the greatest cleanliness in-doors and out. This, whatever we may believe regarding the origin of yellow fever, lies at the bottom of the prevention of all epidemics, and cannot be too strongly or too persistently enforced.

Since going to press with the last number of the RECORD, our best hopes regarding the immediate disappearance of yellow fever from the city of Memphis have been dissipated.

The scourge has reappeared, and quarantine against the city has again been established by most of the prominent cities of the South and South-west. Business, for the most part, has ceased, and those who can, are fleeing for their lives. But there are many doubtless who will find it impossible to escape, and will be compelled to remain exposed to the dreadful disease. For these unfortunate ones we hope nothing will be left undone to afford the greatest possible degree of immunity and relief.

THE NATIONAL BOARD OF HEALTH.

FROM its inception, we have recognized the formation of a National Board of Health as a forward step of great significance in our national care for the public welfare. It is the first extended recognition of the necessity of general sanitary legislation, and of national provision for the nation's health. Every earnest student of sanitary progress in England and on the Continent has recognized how sadly we were wanting in administrative oversight of so great an interest. We have always waited for evils to accumulate, or for the wild route of some epidemic to impress us with the need of guarding against disease. True, various isolated quarantine systems have seemed to take it for granted that all disease is imported, and so have made provisions of guarded expediency. It is a great step to unify methods of quarantine, and to get the admission which the bill for the prevention of contagious diseases formulates, that the interests of public health are so all-prevailing, that no little question about State rights must dispute jurisdiction. We would as soon think of ceasing effort to put out a fire, because it had got beyond the county line.

The National Board is scarcely able to get wisely and vigorously at work, before the alarm at Memphis brings it face to face with important questions of sanitary administration. Very crude and diverse views as to the powers of the Board exist with those who have not fully grasped its intent.

First of all, it is intended to be largely a gatherer of facts, a recipient of information. It might keep busy a year or more merely in studying the actual state of things all over the country and on the seas, in order to avail itself of facts upon which it can safely predicate advice or action. It must first receive and digest information before it can be expected either to issue complete codes or to be very active in execution.

Next, it is largely an advisory and emergency Board. It does not limit the action of States. It would be a sorry result if city or county turned from self-help, with the idea that here is a power to meet every exigency. It rather presents a motive to every part of the nation to bestir itself for home work in all sanitary care and discipline. We can now easily get wise counsel, expert direction, and be encouraged in a way which gives great moral and social strength. The fact of its existence, and the work it is doing, settles all questions as to the feasibility and necessity of close sanitary care. The character and known ability of its members is a large guarantee that discretionary powers are safely lodged with such a body. All sanitary codes, if good for anything, must delegate large powers, and then hold the authorities as responsible for their discretion as for their legality of methods. This Board is held to the strictest accountability in the use of the moneys confided to it. Exact statements must be made to the Secretary of the Treasury as to the kind of expenditure proposed, and disbursements must be made with the fullest evidence of due service rendered. It is not a great charity fund, upon which with a gush of sympathy all may draw. We take it as a sacred trust for the investigation of facts, for the closest study of causes, and for the watching of the course of disease. If there is to be any permanent benefit therefrom, which shall outlast the peril of an epidemic, we are to see to it that other fountains of charity are not dried up, and that a part of the allowance be dedicated to the closest scrutiny of the causes of various diseases, and the best preventive methods.

Already the Board has shown itself equal to any emergency, and prepared in a proper way to meet any real contingency. The order from the Treasury Department of $25,000 to Memphis, was not made without placing its expenditure under such definite in-

structions as will make it tell for the limitation of the disease. We are told that from multitudes of sources applications for pecuniary aid from other districts hastened to the national office, and that a sign that no appointments were being made on application had to be posted. Individuals or municipalities may not get all they ask, but with allowances for mistakes consequent to the initiation of any new system, this Board will be found efficient and successful. It has, and well deserves the confidence of the medical profession, and of those laymen of large experience who have studied the methods of sanitary administration. It has now under close surveillance the South and South-west, in its most exposed points. It has its own trusted methods of inspection, and a very large correspondence, so as to ascertain facts with accuracy. It is not improbable that multitudes of infected particles are hidden here and there in many a Southern city, and will record their cases. Nor is it improbable that a faithful cleansing by local authorities just now, before any outbreak, and the readiness of this Board to at once insist upon right measures, will limit the disease just as a fire is limited when not permitted to gain headway. It is real fire, and cannot at once be annihilated; but it can be prevented from attaining the proportions of an epidemic. Thus far we are encouraged. The circulars and the bulletin of the National Board show that it has its studied methods and its plan of campaign laid down. We beg physicians all over the South and West, while not alarmists, to be intensely watchful, and to fully acquaint themselves with all the advisements of this Board, and mayors and council boards to do the same.

Reviews and Notices of Books.

On Diseases of the Abdomen, by S. O. Habershon, M.D. Second American from Third English edition. Philadelphia: Henry C. Lea. 1879. 8vo, pp. 554.

It is occasionally a relief to take up a work, comprehensive in character, which does fill up valuable space in carrying each disease through the whole course of the world's history. Dr. Habershon has given us such a book, and we have to thank him that we can learn everything about gastric ulcer without being distracted by a story of its probable origin among the Troglydites and subsequent modification among the Fins. The work is eminently a practical rather than a classical one. It abounds in well-condensed illustrative cases, and its descriptions of diseases are clear and complete. We miss the elaborate classifications and tables of differential diagnosis which are the usual dress of the modern medical work, but we do not know that it is any less serviceable on this account.

One of the best written chapters is that on functional disorders of the stomach. Dyspepsia is divided into five different forms, characterized respectively by derangements in the mucous membrane and gastric juice; in vascular supply; in the nerve supply; in impeded muscular movements; and in fermentation of the contents of the stomach. Under these various heads all the symptoms of indigestion are drawn, and valuable indications for treatment given.

In the present edition two new cases of gastrotomy have been added, making seventeen in all. The record is not a cheering one, as all the patients soon died, and only two even survived the operation.

Other additions have been made to the book, bringing it well down to date. On the whole, although it does not rise to the dignity of a classic, it forms an extremely useful manual for the ordinary practitioner.

Fistula, Hemorrhoids, Painful Ulcer, Stricture, Prolapsus, and other Diseases of the Rectum; their Diagnosis and Treatment. By William Allingham, Fellow of the Royal College of Surgeons of England, Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum, etc., etc., etc. Third Edition, partly re-written. Philadelphia: Lindsay & Blakiston. 1879.

This, which may be justly considered the best practical treatise on the diseases of which it treats in the English language, has been most thoroughly re-written. Some of the opinions expressed in former editions have been modified in consonance with the increased experience of the author, who is certainly the most earnest worker in his special department, and his large experience has been brought to bear upon the innovations of the past ten years.

In Chapter IV. the treatment of fistula by elastic ligature is considered. He regards it as valuable in many cases, and frequently invaluable as an auxiliary to the knife, its application inflicting little or no pain, causing no hemorrhage, and peculiarly adapted to sinuses running high up, and such sinuses Mr. Allingham emphatically states should be divided as far as they go. He gives a woodcut of an ingenious contrivance for passing the ligature.

In Chapter VIII. he refers to the views of Verneuil, based on his own and the dissections of Gosselin in 1864, Dubrend and Richard, 1868, and by Duret in 1877, which the French surgeon thinks have proved that the superior hemorrhoidal veins only are connected with the portal system, and solely form internal hemorrhoids, external piles being formed from the external and middle hemorrhoidal, which are connected with the general venous system. These dissections demonstrate that the sup. hemorrhoidal veins, at a height of about four inches, perforate abruptly the muscular coats through "véritables boutonnières musculaires," the contraction of which in abnormal conditions causes stasis and the tumors recognized as internal piles, and on this theory Verneuil bases the now fashionable treatment strongly advocated in France—the treatment by dilatation; our author explains his objections to the views and treatment of his French confrère, and their study will well repay perusal.

In the operative treatment of internal piles, Mr. Allingham objects to the écraseur of Chassaignac, or the wire of Maissonneuve, caustics of all kinds, save the application of nitric acid in exceptional cases, to the application of cautery "ponctuée," "linear" or galvanic wire. In reference to the American method by introduction of carbolic acid into the interior of such growths, he says: "I tried the injection plan on some few cases, but the result was much pain, more inflammation than was desirable, a lengthy treatment, and the result doubtful; certainly not a radical cure."

In many cases he asserts dilatation will give wonderful relief; but as often no good results, and his

preference remains for ligature applied, as in the manner so long used by Mr. Salmon.

Chapter XVII. treats of ulceration and stricture of the rectum, and the doctrines are almost exclusively those of the English school. In treating of the etiology of stricture, he devotes considerable space to a review of the opinion first enunciated by Gosselin, and subsequently studied by an equally acute observer on this side of the Atlantic, and placed prominently before American readers in an article on "Venereal Stricture of the Rectum," by Erskine Mason, *American Journal Medical Sciences*, January, 1873. Mr. Allingham does not believe that soft sores are a cause of stricture, and although he fortifies his position by the testimony of such authorities as Mr. Jas. R. Lane, Walter Coulson, and Christopher Heath, we do not think he invalidates the claim that such lesions are at least among the causes of stricture. Of course we are well aware that the new light brought to bear by recent investigators has materially modified the opinions that have prevailed since Gosselin's views were given to the profession; and we believe that pathologists have satisfactorily proved the existence of several causes. We do not refer to obstructions produced by the cicatrization of tuberculous and dysenteric ulcers, but only to those of venereal origin. Tournier speaks of three causes: 1st. Ulcerous syphilides, late secondary and tertiary. 2d. Gummy infiltrations, one case only recorded by Verneuil, none ever observed by Tournier himself. 3d. Syphilôme anorectale, an infiltration of the anorectal walls, the initial structure of which is as yet undetermined, but susceptible of degenerating into a retractile fibrous tissue, and constituting in that way intestinal coarctations of greater or less extent. Duplay likewise speaks of syphilôme anorectale as a production localized in the rectal walls in a manner similar to interstitial syphilitic hepatitis, which results from a specific deposit in the parenchyma of the liver. The cellular tissue is invaded by a neoplasm of syphilitic origin, by gradual infiltration that ends in retraction. He also thinks that the irritation to which the rectum is subjected is the determining cause.

Chapter XVIII., cancer of the rectum, has much new matter in it, with a number of histories of cases of excision.

The remaining chapters are devoted to rodent or lupoid ulcer, and villous growths.

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 26, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

THE TREATMENT OF INFANTILE DIARRHŒA.

DR. A. JACOBI read an important paper on the above subject, of which the following is an abstract:

Of all the deaths in the first year of life forty per cent. in round number were due to diseases of the digestive organs, and half as many to such of the respiratory organs. In the second year the main cause of death changed completely; for of all the forty-five per cent. of deaths taking place in that year, but nine were due to digestive, and thirty-six per cent. to respiratory disorders. Thus in the first year, stomach and intestines; in the second, bronchi and lungs, were the sources of high death-rates.

Mortality diminished with every day of advancing life. Every additional hour improved the baby's chances for preservation. Almost one-half of the infants dead before the end of the first year died before they were one month old. Thus the causes of disease were the more active the earlier they were brought to bear upon the young with their defective vitality.

Two grave conclusions were to be drawn from that fact. The first was, that the diminution of early mortality depended on avoiding diseases of the digestive organs by insisting upon normal alimentation. That was principally important in the first few months. While breast-milk had been shown to lower infant mortality through the whole first year, it did so more in the first few months. Thus, though an infant might not be fed on breast-milk through the whole normal period of nursing, a great gain, indeed, was accomplished by insisting on nursing, though for a limited time, perhaps two months only. There were but few mothers but were capable of nursing during that brief time, and none who ought to be spared the accusation of causing ill health or death to her baby if she refused to nurse it at least through the first dangerous months. The second conclusion, resulting from many figures, was that the dietetic problems and rules for the infant concerned the digestive organs mainly, so much so indeed, that infant dietetics and the dietetics of the infant digestive organs appeared nearly identical.

It was true that in this city we met with a high mortality, even in children of more than a year. In fact, public opinion looked for a higher mortality in the second than in the first summer. The fallacy of that assumption could be easily corrected by the statistical reports. The second summer was the period of danger in part only because of the heat of the season, but mainly of the errors in feeding. Conscientious and intelligent families in good circumstances were not apt to lose their infants in their second summer.

Nor was it necessary that he should insist upon the danger incurred by the belief that diarrhœa—a pathological condition—was a normal attendant on and a relief of a physiological process such as dentition. It was certain, that very few, if any, popular beliefs had been more destructive than that an intestinal catarrh must be left alone, no matter from what source it originated.

Healthy infants had a normal tendency to loose, liquid, or semifluid evacuations from the bowels. The causes were partly in the condition of the intestinal tract, and partly in the nature of the normal food, viz., breast-milk. The peristaltic movements were very active; the young blood-vessels were very permeable; the transformations of surface cells very rapid; the peripheric nerves very superficial, more so than in the adult, whose mucous membrane and submucous tissue had undergone thickening by both normal development and morbid processes. In the young infant the peripheric ends of the nerves were larger in proportion than in the adult; the anterior horns of the nerve-centres were more developed than the posterior ones. Thus the greater reflex irritability of the young, particularly in regard to intestinal influences, was easily explained. Besides, the action of the sphincter ani was not quite powerful, the fæces were not retained in the colon and rectum, and no time was afforded for the reabsorption of the liquid or dissolved constituents of the fæces. Moreover, the frequency of acids, sometimes normal, in the small

intestines gave rise to the formation of alkaline salts with purgative properties.

The nature of breast-milk, even when absolutely normal, was such as to facilitate frequent, large, and fluid evacuations.

FAT.

First, as to its fat where no food was given but mother's milk, *a good deal of fat was eliminated* without any change.

What had been called detritus in the fæces was mostly fat, and very probably remnants of intestinal epithelium. Practically that *fact* was of the very greatest importance. The conclusion was, *we were almost certain to give too much fat; it was scarcely ever probable that there was too little.* Therefore the addition of cream was reprehensible, no matter in what shape. Thus in the most normal milk there was more fat than required.

In the first period of lactation the glandular transformation was not yet accomplished. It required days to exhibit casein. At the same time the percentage of butter and salts was very high indeed, both of which explained the *laxative* character of colostrum.

There was no stability in the nature of breast-milk, and very much less in the human than in the animal female, for obvious reasons. Its constituents and effects might even change from hour to hour, from day to day, sometimes it would be milk, sometimes milk with transuded serum.

SUGAR.

Again, as to sugar. It was abnormally plentiful in colostrum, and in some milks, at times, its percentage was lower than normal. In the former it was purgative, in the latter its absence one of the causes of constipation. Thus the addition of a piece of sugar—which need not be milk sugar—to breast-milk was apt to heal constipation in the infant. He dissolved it in the smallest possible quantity of water, say a teaspoonful, and let the baby take it before each nursing.

CASEIN.

Fourthly, as to casein. When present in an abnormally high percentage, it might either constipate or by remaining undigested, and, acting as a local irritant, produce a diarrhœa. In those cases of diarrhœa the stools were mixed with white flocculi, small or large, sometimes in astonishing quantities and for a long period. The treatment of such diarrhœa was by no means very simple, unless the breast-milk was changed. When such a change could not take place, he added oatmeal gruel or barley-water in such a manner, that a few teaspoonfuls of it were administered to the baby before each nursing.

Dr. Jacobi then passed to the examination of some of the articles of food mostly used for the young.

Goat's milk ought to be rejected because of its large percentage of fat.

Cow's milk contained more butter than human milk, and if the latter was not entirely digested, the former would certainly leave even more remnants to encumber the intestinal canal. The reaction of human milk was alkaline, that of cow's milk rarely to the same degree.

But the main difficulty was in the large percentage and in the nature of the casein of cow's milk. The casein of cow's milk and the casein of woman's milk were two different substances. The former had an acid reaction and was soluble in water in the proportion of 1–20. The latter was alkaline or neutral, and almost entirely soluble in water. There was less casein in woman's milk than in cow's milk. The fact was beyond doubt that pure cow's casein was very much less digestible than human casein.

At all events, no addition we knew of could render cow's casein more digestible that Nature made it, and the only thing which could be obtained by any sort of manipulation of the milk was to make it less injurious. Perhaps, however, the plan upon which Dr. J. Rudisch had acted might recommend itself to the attention of the practitioner. In order to make cow's milk more digestible, he had introduced into Dr. Jacobi's practice a mixture which promised to be of great value in all those cases in which coagulability of the mik was the prominent obstacle to its usefulness. The mixture suggested by him, and used by them up to that time mainly in diseases of adults, such as anæmia, gastric catarrh, ulcer of the stomach, slow convalescence, etc., was the following: to one pint of water add one-half teaspoonful of officinal dilute muriatic acid. To that mixture add one quart of raw cold milk; mix the two liquids thoroughly and then boil for ten or fifteen minutes. He had found that preparation to be very digestible, and well tolerated by very feeble digestive organs. Valuable as that preparation of cow's milk might prove in future, there was one method for making cow's milk more available, which was at once simple and effective. No cow's milk ought to be administered without the addition of chloride of sodium. Not only cow's milk, but also—and even much more so—farinaceous admixtures to cow's milk required its presence in the food.

PREVENTIVE TREATMENT.

The preventive treatment of diarrhœa, depending on defective alimentation, consisted in so changing and arranging the milk used for babies that the casein would not coagulate in large lumps, and thus become more digestible. That object could be obtained by adding such farinaceous food as did not contain much starch. It consists in diluting the boiled and skimmed milk with barley-water or oatmeal gruel. It must be boiled to check its tendency to become sour, to remove a portion, though small, of its casein and fat, and to expel the gas contained in the raw milk to the amount of three per cent.

Of the two, he preferred barley for general use. He recommended that the barleycorn which was employed for infant diet should be ground as thoroughly as possible in a coffee-mill, both in order to diminish the period necessary for cooking it, and also in order to retain the gluten. *It was even preferable, for very young infants, to cook the barley whole for hours*, thereby to burst the outer layers of cells, empty their contents, and then, by straining, to get rid of the larger part of the starch which was found toward the centre. There was no danger to which little children were so liable as that which arose from their tendency to diarrhœa. His advice, therefore, was to administer barley to children who manifested a tendency to diarrhœa, and oatmeal to those having a tendency to constipation, and, whenever a change occurred in the intestinal functions, to give one or the other, according as constipation or diarrhœa predominated.

He held that mixture to be the *conditio sine quâ non* of the thorough digestion of the milk. It only would insure the proper nourishment of the infant. With that food alone he had seen children endure the heat of summer without any attack of illness whatever. He had occasion again and again to be convinced of the reliability of the mixture. It had the advantage, too, that it necessitated no dependence upon the honesty

or competence of the apothecary or manufacturer, but could be prepared by any one, however poorly situated. Should a slight diarrhœa occur, or a little casein be vomited (a rare accident, to be sure), or casein occur in the stools, then all that was necessary was to diminish the proportion of milk. It might sometimes be necessary, though very seldom, to withdraw the milk entirely for a time, but only in cases of real illness. If the physician or attendants had properly apportioned the ingredients of the mixture, we might be rather sure that the child's digestion and assimilation would be regular and normal. Infants that were partly nourished at the breast almost invariably thrived well with the addition of his mixture. Children, from their fourth or fifth month and upward, might often be fed with it exclusively, and not unfrequently nothing else was given from the day of the birth.

The addition of barley or oatmeal for the purpose of rendering milk digestible was not, however, absolutely indispensable, though he had learned to prefer them. For, gum-arabic and gelatine were also very valuable ingredients, indeed, of infant foods. Dr. Jacobi then dwelt at some length upon the changes which gum-arabic and gelatine undergo when put into the stomach.

CURATIVE TREATMENT.

The amount of food should not be larger than we had reason to expect could be easily digested. At all events, either lengthen the intervals between the meals or reduce the quantity of food given at one time, or both. When diarrhœa made its appearance in infants who had been weaned, it was desirable to return them to the breast. Those who never had breast-milk might be given the breast if they could be induced to take it, but only rarely would that be found possible. Whenever a child at the breast was taken with diarrhœa, the passages from the bowels should be studied as to their contents. If a certain amount of curd was found in them, the least that was to be done was to mix the breast-milk with barley-water. That might be done in such a manner that, each time before nursing, one or two teaspoonfuls of barley-water was given the child, so that the farinaceous food and the breast-milk mixed in the stomach. Or, it might be found advisable to alternate breast-milk and barley-water. In bad cases, particularly when the milk was found to be white and heavy, and contained a great deal of casein, it would be found necessary to deprive the child *altogether* of its usual food. In such cases, the child would do better on barley-water alone (that to be continued for one or two days), than to expose it to the injury which would certainly follow the continuation of the casein food.

When diarrhœa occurred in children who had been fed alone upon cow's milk, unmixed or mixed, it was necessary to reduce the quantity of cow's milk in the mixture. As a rule, we had to remember that cow's milk alone was apt to produce diarrhœa, and it should be considered as a maxim that, whenever diarrhœa made its appearance, the amount of cow's milk given to the child should be reduced. When a mere reduction of the quantity did not suffice, it was very much better to deprive the child of milk food altogether. Not infrequently the removal of milk from the bill of fare was the only thing which would restore the child to health. It was possible that a mixture, such as recommended by Dr. Rudish, already mentioned, would be found digestible, even in such cases. In many cases, as a dietetic measure, it would be found advisable to add one or two tablespoonfuls of lime-water to each bottle of food with which the child was supplied.

In those cases in which barley-water did not seem to suffice as a nutriment, or where it would be dangerous to allow children to lose strength, a mixture which he had used to great advantage was the following: Mix the white of one egg with four or six ounces of barley-water, and add a small quantity of table salt and sugar, just sufficient to make the mixture palatable. The child could take this either in large or small quantities, according to the case.

In those cases in which the stomach was irritable, and vomiting had occurred, it was now and then better to give a small quantity, even one or two teaspoonfuls, and repeat the dose every ten. fifteen, or twenty minutes, than to give larger quantities at longer intervals.

In those cases in which the strength of the child has suffered greatly, he recommended the addition of brandy to the mixture in such quantity that the child would take from one drachm to one ounce (grms. 4.0 to 30.0), more or less, in the course of twenty-four hours.

In those extreme cases in which the intestinal catarrh was complicated with gastric catarrh, where the passages were numerous and copious, and vomiting constant, where both medicines and food were rejected, there was frequently but one way to save the patients, and that was to deprive them *absolutely* of everything in the form of either drink or food or medicine. It was true that such babies would suffer greatly from thirst for an hour or two, but it was a fact that, after two or three hours, those children would look better than before the abstemious treatment was commenced. Not infrequently four or five hours of total abstinence would suffice to quiet the stomach and diminish both the secretion and the peristaltic movement of the intestinal tract. In some cases *six* or *eight* hours of complete abstinence would be required; or such children might be starved for even *twelve* or *sixteen* hours, with final good results. The first meals afterward must be quite small, and they would be retained, and, as a rule, such children would subsequently do well.

Dr. Jacobi here enforced the necessity of supplying the patient with as much cool fresh air as possible. The worst out-door air, was better than close in-door air. If possible, the children should be sent immediately to the country and into the mountain air.

The second indication consisted in the removal of undigested masses retained in the intestinal tract. Not only in cases in which the diarrhœa had resulted from previous errors in diet of the child, but also in those cases dependent upon sudden changes of temperature and exposure, it was desirable to empty the intestinal tract. For that purpose castor-oil, calcined magnesia, or calomel might be used.

Third. Nothing should be given that contained salts in any sort of concentration. Thus, beef-tea should be avoided. It must be remembered that that form of meat-extract contained a very large amount of salts, and that the direct effect of those upon the intestinal canal might be productive of very unpleasant consequences. If the people insisted upon giving it, and there was no special contraindication to its use in a given case, it should be administered only in connection with some well-cooked farinaceous vehicle, and the best of all for that purpose was barley-water; or it might be mixed with beaten white of egg, but no more chloride sodium should be added. For the main danger in beef-tea was the concentrated form in which its salts were given.

Fourth. Everything should be avoided that in-

creased peristaltic motion. Thus, carbonic acid and ice internally.

Fifth. Avoid whatever threatened to increase the amount of acid in the stomach and intestinal tract. There was so much acid in the normal, and still more in the abnormal stomach and intestinal tract, that it was absolutely necessary to *neutralize* it. For that purpose it was safer to resort to preparations of calcium than of sodium or magnesium. So far as lime-water was concerned, its administration, certainly, was correct chemically. But we should not place too much reliance upon that popular remedy. We should not forget that it contained about one part of lime to eight hundred of water, and that it was necessary to swallow at least *two* ounces of the fluid in order to obtain a single grain of lime.

A further indication was, *the necessity of destroying ferments.* For that purpose most metallic preparations would do fair service. One which had been extensively used, was *calomel*, and now in *small doses* frequently repeated—$\frac{1}{10}$, $\frac{1}{5}$, or $\frac{1}{3}$ a grain [0.1 0.15 0.03] every *two* or *three* hours. As to its effect as an antifermentative, there could be no doubt.

Nitrate of silver, when given for the same purpose, should be *largely diluted.* From $\frac{1}{40}$ to $\frac{1}{15}$ of a grain [0.0015 0.004], dissolved in a teaspoonful or tablespoonful of water, might be given every *two* or *three* hours, and not infrequently with fair result. That was especially important with regard to injections of nitrate of silver into the rectum, where it was apt to do as much harm as good. Whenever it was to be given in that way, the solution should be mild and largely diluted, or the anus and its neighborhood should be washed with salt water before the injection was administered.

Bismuth acted very favorably. Moderate cases of diarrhœa would usually show its effect very soon. Doses of from $\frac{1}{2}$ to 2 or 3 grains [0.03 0.20], given every *two* or *three* hours, would act very favorably indeed. In those cases in which the diarrhœa had lasted for a long time, the doses of bismuth should be large in order to be certain of immediate contact of the drug with the sore surface.

A final indication was the depression of the hyperæsthesia of the general system and of the intestinal tract in particular. There had been authors who condemned the use of opium altogether, which, certainly, was incorrect. The doses should be *small*, and they might be repeated frequently. Administered in that manner, opium could be used with perfect safety both internally and in an enema. One of the rules for giving opium was that the child should not be waked up for the purpose of taking the medicine. Whenever there was fear of collapse, it was safer to give $\frac{1}{200}$ of a grain (0.0003) every half hour or hour, than to administer $\frac{1}{80}$ of a grain (0.0012) every two hours.

Alcohol.—Small and frequent doses would certainly stimulate the nervous system, digestion, and circulation, and they also stimulated the skin and increased perspiration. Alcohol, given in that manner, certainly arrested fermentation. Moreover, it took the place of food, and acted favorably as food when no solid carbo-hydrates were tolerated by the intestinal tract. As it was absorbed in the stomach, so did it protect the intestinal tract.

Finally, it is necessary to reduce the amount of secretion taking place from the surface of the intestinal tract. For that purpose astringents might be used, such as alum, lead, tannic acid, pernitrate of iron, and, what had already been spoken of, nitrate of silver. In all those cases in which the stomach participated in the process to any considerable extent, almost any astringent would prove ineffective. To fulfil several indications at the same time, it was often good practice to combine remedies.

The main indications were to neutralize acids, to reduce nervous irritability, to arrest secretion, and to change the condition of the surface of the catarrhal mucous membrane.

For that purpose, in the generality of cases, he combined bismuth, opium, and chalk, according to the following formula:

℞. Bismuth subnit..... gr. i. (0.05)
Prepared chalk..... grs. ij. (0.10–0.20)
Dover's powder..... gr. $\frac{1}{8}$ (0.02)

That combination was suitable for a baby *ten* or *twelve* months of age, and the dose could be repeated every two hours. In all those cases in which acid was very abundant, it was necessary to increase the doses of antacids without necessarily giving large doses of opium.

Hot bathing was especially serviceable in those cases in which the surface was cool and the temperature of the body, measured in the rectum, was pretty high. To relieve intestinal pain, plain warm fomentations; to relieve heat, cold applications were sufficient.

Camphor stimulated the heart, and reduced temperature, and might be used internally or subcutaneously according to the necessities in the case. For subcutaneous injections it might be dissolved in either oil or alcohol. The effect derived from camphor as a stimulant was not permanent, but very much more so than that produced by carbonate of ammonia. The dose might be from $\frac{1}{4}$ to $\frac{1}{2}$ a grain [0.015 0.03] every hour or two, when only a moderate stimulation was required. In urgent cases it might be given in doses of from *five* to *ten* grains in the course of an hour, and usually the effect would be favorable. It was, however, only in cases in which real collapse was present that doses of five or ten grains would be required.

There was no remedy that would act more favorably in conditions of great debility and collapse than *musk.* It might be given in doses of five or ten grains, and repeated every half-hour or hour. More than two or three such doses would not be required to yield a result.

The paper being before the Society for discussion,

Dr. William H. Thomson remarked that, doubtless, each one of us had, by experience and reflection upon that experience, been led to the conclusion that in the course of years we became more or less a law to ourselves. He was very glad that the opportunity had been afforded for some one to come in contact with his own ideas, and none more acceptably than the author of the paper, who was one of the most eminent authorities in his department in this county. In certain respects he disagreed with Dr. Jacobi, and was sure that he dreaded the beginning of dentition, as having a direct bearing upon the etiology of some of the more serious forms of summer diarrhœa, which occasionally occurred with the suddenness and explosiveness of true cholera. The reflex effect from the irritation incident to dentition was to suspend the secretion of gastric juice, hence he had been led to administer bromide of potassium early in the treatment of infantile diarrhœa, and, as he thought, with good results. He employed it as an agent that arrested reflex irritation. He had been led to believe there was a difference between the diarrhœa due to local irritation, such as teething or fermentation of the contents of the intestines, and the diarrhœa which seemed to be due to sudden nervous paralysis. The one he would regard as a catarrhal diarrhœa, and the other

as a true choleraic diarrhœa. It had appeared to him that there was a difference between the two classes of cases from the very beginning. The manner in which the choleraic diarrhœa began—without any evidence of distress accompanying or preceding the discharges, but the existence of large watery passages and their sudden development of grave cerebral symptoms,—had led him to regard its access as very often due to an infection of a kind not dissimilar to Asiatic cholera. It was in the choleraic class of cases in which the effect of camphor seemed to be beneficial, and to be indicated from the very commencement. He always ordered camphor or some remedy allied to camphor in any case of diarrhœa in which there is much looseness of the bowels without pain, and he directed special attention to that point, to be noticed by the attendants upon children in warm weather. Camphor, unquestionably, was a substance which was not dissimilar to carbolic acid and the whole array of spices, which were antiseptics when taken internally. He relied very much upon them. The action of spices was very similar to the action of camphor, and in some cases peppermint and allspice were combined with small doses of camphor, preferably in those cases in which there was great irritability of the stomach.

Lastly, as to the question of the use of hot water for the purpose of restoring the circulation in cases of threatened collapse, he fully agreed with Dr. Jacobi in the employment of the agent for that purpose, for he had used it with great success to overcome sudden and exceedingly dangerous contraction of the peripheral arteries. He used large hot-water injections, and ordered them to be given as freely as possible. He thought the hot water acted in two ways: 1. It aroused the patient; and 2. It allayed the peristaltic action of the intestines. For dysentery he gave but little medicine, but constantly washed out the lower bowel with hot-water injections. Finding that it was equally well borne in the dysentery of children as adults, and allayed the irritability of chronic dysentery, he tried it also in cholera infantum, and strongly recommended its use.

The Society then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 14, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

WAXY DEGENERATION OF THE PLACENTA.

DR. C. HEITZMANN presented microscopic specimens prepared from six placentæ, which exhibited a change in placental tissue heretofore undescribed. In all the cases premature birth had taken place; the earliest at the fifth and the latest at the eighth month of utero-gestation. To the naked eye, the placentæ exhibited grayish or yellowish patches scattered through the solid part, the decidua, and less marked through the villous portion.

In all the cases the diagnosis of fatty degeneration of the placenta had been made, and Dr. H. was of the same opinion when he first saw the specimens. In all, the size of the placenta was normal, corresponding to the month of pregnancy. In all, the fœtus was well developed.

In some of the cases the fœtus was dead at the time of its birth, and in those in which the child was born alive it died shortly after, breathing only a few times.

In no instance was there any clinical history of syphilis.

In a number of the cases the premature birth occurred in apparently perfectly healthy women.

The first specimen was a placenta that was presented to the New York Pathological Society by Dr. Salvatore Caro, as an illustration of fatty degeneration, and taken from a woman who had had a succession of premature births dependent upon that cause.

Dr. Heitzmann had examined the specimen many times, and had failed each time to find any microscopical evidence of fatty degeneration, although the gross appearance was such as indicated its presence. The specimen had been preserved in chromic acid, a fluid not unfavorable to the perfect preservation of fatty tissue, and yet he had not been able to discover anything which he could call fatty degeneration. On the contrary, the microscope revealed a change that had not heretofore been described as existing in the placenta. There was found a peculiar homogeneous, shining material, which took carmine, was slightly stained with chloride of gold, and presented the ordinary appearance of waxy degeneration. There were no protoplasmic bodies present. In the villous portion the same change existed, but to a less marked degree. A large number of the capillaries were lost, being transposed into the same material. The myxomatous tissue of the placenta was missing altogether in the portions affected. This change Dr. Heitzmann had found in six specimens of so-called fatty degeneration of the placenta, and the question arose in his mind, Was there any such thing as fatty degeneration of the placenta? Was not the change, which had been regarded as fatty, a waxy degeneration?

In one case the fœtus was examined, and no evidence of waxy degeneration could be found.

The report was presented as a provisional one.

DR. C. C. LEE asked Dr. Heitzmann if he was able, from his researches, to suggest any therapeutical measures to prevent the change described?

DR. HEITZMANN replied that so long as we did not know what the essential chemical change was, we could not expect to reach any conclusion regarding its therapeutics. The microscope thus far had given but few practical facts with regard to therapeutics.

DR. J. C. PETERS referred to the fibrin-destroying function of the liver, and suggested it might be barely possible that, in those cases in which syphilitic contamination was not present, attention might be directed to that organ.

DR. HEITZMANN thought that fibrin did not have much to do with the change known as waxy degeneration.

DR. J. W. HOWE believed it fair to assume that other observers were correct in reference to what they had determined to be fatty degeneration of the placenta.

CYSTITIS — SUPPURATIVE NEPHRITIS — PERINEPHRITIC ABSCESS — ACUTE PERITONITIS.

DR. C. C. LEE presented the urinary organs removed from a woman who died from acute peritonitis following perinephritic abscess, which in turn followed pyelitis and cystotomy:

S. J., æt. 36, born in London, widow, had been ill for eighteen months with symptoms of cystitis. She had previously been treated for Bright's disease and anteflexion of the uterus. At times she had passed a large amount of pus with urine, which, at other times, was quite clear. No uræmic symptoms had ever occurred. She was admitted to the Woman's Hospital October 24, 1878. A long course of treatment for her cystitis produced no benefit, and February last she was transferred from Dr. Emmet's

service to Dr. Lee's. At that time her bladder was contracted and so irritable as to hold only an ounce of urine. As all her previous treatment had failed to relieve it, he performed cystotomy February 12th, keeping the opening patent with a glass tube. In ten days the bladder symptoms improved greatly, but sweating, high temperature, and chills began to appear and recurred regularly. Quinine was used freely without benefit. The tube was removed on March 21st. In ten days from that date pain appeared in left renal region, and in two days this was followed by a circumscribed swelling, which indistinctly fluctuated. It was aspirated and pus was obtained. Aspirated twice again, and finally opened freely under spray; abscess washed out daily; drainage-tube kept in; but the patient slowly sank, and died April 24, 1879.

Autopsy twenty-four hours after death. — Body emaciated. There was an incision about two centimetres in length in left lumbar region, five centimetres above the middle of the crest of the ilium. That incision extended through the abdominal walls into an abscess seated on the anterior face of the left kidney. That abscess had opened into the peritoneal cavity, so that a probe could be passed from the external opening directly into the peritoneal cavity, the internal opening being nearly opposite the external, being situated to the left of the descending colon, three centimetres above the crest of the ilium. The accumulation of pus in the abdominal cavity, which communicated with the perinephritic abscess, was encapsulated by recent adhesions between the intestines and the abdominal walls in the left lumbar and iliac regions. There were about eight ounces of pus thus shut in. There was also a moderate amount of general peritonitis, evidenced by recent fibrin on the visceral and parietal peritoneum. There was a small abscess in Douglas's cul-de-sac about the size of a pigeon's egg, situated on the right side and encapsulated by recent adhesions.

Heart normal; decolorized post-mortem clot in right ventricle.

Pleura: Extensive old pleuritic adhesions on right side. Lungs normal.

Spleen normal.

Kidneys: The *left* kidney was changed into a sacculated mass; the cavities were filled with pus; numerous small abscesses were in the septa which separate the larger cavities; the pelvis was not dilated; on the other hand, it appeared contracted, and its mucous membrane thickened and coated with pus. There seemed to be no kidney parenchyma left; the capsule was thickened; there was a sloughy abscess in the connective tissue outside of the kidney, especially on the anterior surface; the perinephritic abscess was surrounded with indurated tissue, and, as above described, communicated both with the external incision and with the peritoneal cavity. The kidney measured twelve centimetres in length. The left ureter was somewhat dilated, but more noticeably its walls were greatly thickened and very dense. The *right* kidney was enlarged, and presented on its surface and cut section numerous small, yellowish-white streaks and nodules (beginning of acute interstitial nephritis). The pelvis was injected. The ureter was normal.

Bladder: It was contracted, and contained about a teaspoonful of muco-pus; the mucous membrane was of a dark slate-color, with a patch of livid injection on the posterior surface, corresponding to where the cervix of the retroverted uterus had impinged against it. The walls of the bladder were of normal thickness. The openings of the ureters were free and normal. There was a fistulous communication between the posterior surface of the bladder and the vagina on its anterior wall.

Uterus: The uterus was retroverted, and bound down by adhesions of moderate firmness. The posterior lip of the os externum was split, and one portion projected, as a polypoid excrescence, into the vagina. The mucous membrane was smooth and normal. The uterus and vagina were in other respects normal.

The *ovaries*, *rectum*, and *liver* were normal.

Stomach: It presented a stellate fibrous cicatrix on its anterior surface.

Intestines normal.

Dr. Lee remarked that he presented this specimen simply because of its surgical interest. It was the only case of cystitis on which he had operated, knowing the patient to be the subject of Bright's disease. He believed the obstinate cystitis justified the operation under the circumstances.

(To be continued.)

Correspondence.

ALCOHOLIC INEBRIETY.

To the Editor of The Medical Record.

Dear Sir:—In almost every medical journal, both English and American, as well as continuously in the secular press of both countries, inebriety is becoming discussed as the crying evil and curse of the day. Medical societies and religious organizations over both countries have earnestly deliberated and pondered over various plans to check it, well-meaning and zealous temperance lecturers have traversed both sides of the ocean, and fanatical women have in some cases banded together under the name of crusaders, and brought their might to bear down upon it, and still the evil seems to increase instead of diminishing. Vendors of alcoholic drinks have been burdened with heavy taxes, and in many cases their houses closed either by local law or mob force, and still the number of inebriates is surely on the increase. To condemn none of these efforts is my intention. They are all commendable, or at least the object had in view is commendable. I do propose, though, to say that they have all failed to devise a plan to check it, and the object of this short paper is to suggest a plan I have long thought the only effectual one.

When a man or woman is charged with lunacy, the law provides that a jury be called and proper investigation and inquiry be made as to the mental sanity or insanity, and if the jury adjudge the party a lunatic or insane, he or she is committed to an asylum *nolens volens*, and until the superintendent of said asylum declares the patient restored and of sound mind, the law takes from him or her all right of contract or rights of purchase or conveyance.

Is not an habitual inebriate an insane person? Is he capable of thinking or acting for himself or those who are dependent upon him? If he is insane—incapable of transacting or performing the duties he owes to himself, his family, his friends, or his community—should not he and his family and friends, and the community in which he lives, have the same protection by law as if he were insane from any other cause? It seems but fair that they should. Then what are the laws to be enacted? Simply these: Let each

State make laws levying a special tax on every manufacturer and vendor of intoxicating liquors; let the fund thus created be appropriated solely to the erection, support, and maintenance of as many inebriate asylums as may be necessary, and then, in every case of habitual drunkenness or inebriation, let the law be made to apply as in any other case of insanity. Let a jury of inquiry be called, and if, upon careful investigation, the charge be fully sustained, let the party charged or investigated be so adjudged and committed, divested of all the rights taken from any other lunatic, until the superintendent or expert under whose care he has been placed shall decide that he has been sobered and become rational. Then when informed of the action of the strong arm of the law in taking from him his power to purchase or convey any property, he will be brought to a realization of his responsibility or irresponsibility, and thus, I believe, more effectually be broken of the habit.

It may be urged against these views that they are too radical, or that the burden of taxation falls too exclusively on men in one line of business. The first may, at first glance or thought, be true. The second is in no way true, for the tax comes upon the inebriate and not on the vendor. It may also be supposed that these thoughts originate in the mind of a total abstinence man, a teetotaller, or a *Murphyite*. Not so. I recognize the very great value of alcoholic and malt liquors when not abused, and would scarce know how to do a general practice of medicine without their use in many cases.

Expecting that many objections will be raised to these views, and recognizing myself some of them, I am prepared to hear them. And having heard them, I will only ask those objecting to name a more feasible or effective plan.

Very truly and respectfully,

J. M. KELLER, M.D.

HOT SPRINGS, ARKANSAS, June 17, 1879.

DOES SUCCESSFUL VACCINATION PROVE THAT SMALL-POX HAS NOT BEEN RECENTLY EXPERIENCED?

REPLY TO DR. C. IRVING FISHER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Several months since, while I was sitting at breakfast, I was called into my office, and found there a stranger, divested of his coat, and with the shirt-sleeve rolled up one arm. As I entered he saluted me thus, pointing to his bare arm: "Is that a good vaccination?" After examining his "arm," thinking he was one of those too numerous nuisances who amuse themselves by threatening unfortunate sons of Æsculapius with the terrors of the law for using "dirty pock," I said: "I don't know why you ask; but I have no objection to telling you that it is, not only a good, but a remarkably successful vaccination, done some three weeks since, and with virus which probably came from this office, or if not, with virus derived from what was originally supplied by my son or myself; you could not have had so perfect a result if ever vaccinated before, unless in very early infancy." I need not describe the appearance of his arm. On it were (I think two) perfect, typically accurate vaccine crusts. He went on to tell me that he had been treated, in a country town, as a subject of small-pox within five weeks or so, had been subjected to great hardship and to humiliation, such as any one who has had the misfortune to have, or to be suspected of having small-pox, in a New England village can alone appreciate. After regaining his liberty, he was led to suppose that he had not had small-pox at all, and had been vaccinated as a test. He said that he was shunned by every one in his neighborhood; that people, his friends, ran away from him, and yelled to their children to keep out of his way; and, to crown all, his former employer refused to take him again into his "shop," saying that if he should, he would not have another man in it in five minutes. If I had not had an exceptionally large experience in this sort of thing, I should have supposed the man a lunatic, or that I had been hearing of heathendom in the dark ages, of the realms of Mumbo Jumbo in the days of Prester John; but I knew too well that all the man told me, from his condemnation on suspicion of variolous criminality, to the last unkindest cut of refusal of employment, was, if not *vrai*, at least *vraisemblable*. He asked me to give him a certificate that he had not had the small-pox. This I told him I could not do; that he might have had the disease at some remote period. Although the perfection of his vaccination rendered this unlikely, it was nevertheless possible. I told him I would give him a certificate that he had not had small-pox during the previous few (I think five) weeks. This I consented, nay, possibly volunteered to do, for the sole reason that it seemed possible that such a document might serve to rehabilitate him as a human being, assuage the terror of his fellow-citizens, and restore the poor fellow to a possibility of earning his bread. This certificate was by no means justified in my mind by the success of his vaccination *alone*. Though that was, under the circumstances, an important piece of evidence, it was not the only, hardly the chief one. My opinion was based on the man's quite coherent and consistent narrative of his case and its symptoms, the success of his vaccination, and the total absence, within a very few weeks after the commencement of an attack of small-pox, with considerable eruption, of all traces whatever on the entire cutaneous surface.

It occurred to me, when yesterday quite accidentally reading the note of Dr. Fisher in your issue of June 14th, that *I* might possibly be the "member of the Massachusetts Medical Society" who "very kindly (?)" advised a lawsuit, etc., etc. There can hardly be a doubt of it, although I am not *absolutely* sure, for I did not ascertain or try to ascertain the name of the doctor, or where he resided. The man, after he got the certificate, said something about instituting a suit, and tried to get me to approve it. I not only did not do this, but strongly advised him to try to get back to his work, and let the law alone; and this I did without any regard to the justice of his cause, but on the ground of the "law's delay," uncertainty, and expensiveness, and the probability that the proposed defendant, being a regular physician, had no funds to satisfy a verdict in damages, even if the plaintiff should obtain one. I wish most pointedly to state, however, that I gave this advice because I always give it in such cases, and not because the doctor was a possible member of the Massachusetts Medical Society.

I do not consider it one of my duties as member of that society to lie to shield a brother member from the consequences of his malpractice, nor do I consider it entirely established that members of the Massachusetts Medical Society are, *ipso facto*, incapable of gross ignorance and malpractice. I *know* better. Not to go beyond small-pox, I knew an instance in which a prominent member of that old and illustrious association condemned to malignant and

confluent small-pox and the Bridgewater almshouse a young fellow with a gonorrhœa, who, in doctoring himself out of that, had doctored himself into the most magnificent case I ever saw of the peculiar eruption (without fever, headache, or anything else like variola) which follows the continued use of large doses of copaiba. I rescued him as he was being taken to the cart which was to convey him to Bridgewater, and in two days he was at work as usual. Another, who sent to the "pest-house" a case of scabies, and absolutely (not to be taken in a second time) himself took small-pox, with which he was marked for the rest of his life, from a patient with the disease whom he was attending and treating for the itch. Another, who allowed the numerous friends of a patient with supposed varicella to visit him freely, and, when one or two of them came down, they too were chicken-pox. It was not till quite an endemic of variola occurred, and some died, and some got into other doctors' hands, that the member of the Massachusetts Medical Society admitted that the varicella *was* unprecedentedly severe, and presented peculiar and curious features, unlike the usual "plan of creation" in such cases. This will do; but how many of us have known of neighborhood small-pox scares whose only foundation was in varicella and measles? I sincerely hope that Dr. Fisher's fears may prove groundless, and that the case will not go into court; but if it does, and I am not mistaken in supposing that he and I are writing about the same thing, and I should be summoned, I shall certainly not perjure myself for his sake, though all the thunders of that Olympus of the Massachusetts Medical Society, the counsellors thereof, should be launched on my devoted head for refusing to do so.

Dr. Fisher's query affords a grand opportunity for the ventilation of such cheap erudition as is readily accessible in any good hand-book of vaccination (say Seaton's). I will not indulge in that way at present, but from my own pretty large experience in the vaccination of soldiers and other adults said or known to have had small-pox previously, glean a few items. Although most of these failed to evince any susceptibility to the vaccine disease, there were still many who proved thus susceptible. Those in whom vaccination "took," however, were adults, and, generally, adults approaching middle age, who had passed through small-pox in infancy or at very remote periods of early life. I think there is ample evidence within my own experience to prove that, if an infant has small-pox and survives till full adult life, he is then as susceptible to a second attack or to vaccination with original cow-pox virus, or the as vigorous and effective lymph obtained by the proper transmission of original cow-pox on a series of bovines as if, instead of small-pox in infancy, he had then been vaccinated with either of those vigorous and perfect "strains" of virus. That there is not such ample evidence of this as of the success of revaccination with vigorous lymph, is because, while every child that is vaccinated (notwithstanding the doleful and prodigious mortality of the anti-vaccine fools) survives the operation, recovery from small-pox in infancy (under two years) is a very rare thing. During the great variolous pandemic of 1872–3 (what a mortality would then have been *sans* vaccination!! It is not too much to say, beyond any within authentic historical record) my office was thronged, for several months, with people to be vaccinated. One day the office door opened and in walked the very worst and most pitiful small-pox wreck that I ever saw,—a woman of fifty and over, who had lost one eye, and whose face was not a face but a cicatrix. "Oh!" said I, "are *you* come to be vaccinated too?" I was ashamed of the smile which, quite involuntarily moved my features, when she quietly answered, "yes; that she had had small-pox, as I could see, but it was when she was under a year old, and her reading and her own judgment had led her to believe that she might be again susceptible to the disease, and, as I might suppose, she dreaded it." I vaccinated her and she had an "arm" as perfect as any fine primary vaccination, which indeed it was, for she had never been vaccinated before. This case was only apparently more marked than on a patient in whom small-pox had not left such dire traces because the patient was more so, but it was very *striking*. I had several cases, in the army, of successful vaccination of men marked with small-pox, but always by an attack at remote periods of early life. Of such cases Dr. Fisher will doubtless easily obtain accounts from his *confrères* and find them in the prodigious literature of small-pox and vaccination, where, with diligence, he may find almost anything; but he will probably find it difficult to procure many *authentic* narratives of cases in which a vaccinated or unvaccinated patient, having just passed *through* and *quite ended* with a case of small-pox or varioloid, proves susceptible to the vaccine disease in a very perfect form. If he succeeds in *thoroughly* and *undoubtedly* establishing his own case, he will make what is not often done nowadays, a really valuable addition to the literature of vaccination.

HENRY A. MARTIN.

27 DUDLEY ST., BOSTON, July 11, 1879.

THE MECHANICS OF LATERAL CURVATURE OF THE SPINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In an important and valuable essay on Pott's disease, recently reviewed in your columns (July 12th, pp. 39, 40), there is an erroneous reference on page 34 to some work done by me several years ago in the study of lateral curvature of the spine. I would like to state that the preparation referred to as moving in obedience to checks and springs was constructed to show that rotation is mechanically an inevitable incident of lateral curvature, and not to explain the etiology of the disease.

It was argued in brief that, as the posterior portion of the column is a component part of the parietes, while the anterior portion is free to move laterally, a lateral curve of the column would be necessarily attended with more displacement laterally of the anterior than of the posterior portion, the motion thus produced being rotation.

This view was thought at the time to be new. Its novelty and correctness have not, so far as I am aware, been gainsaid.

Yours, etc.,

A. B. JUDSON, M.D.

NEW YORK, July 15, 1879.

AN ORDER FOR NURSES.—Queen Victoria has instituted the order of St. Katherine as a reward of merit for those nurses who have distinguished themselves by long service and good conduct. They receive a badge of the Order and an annuity of $250 for three years. Three nurses have already been decorated.—*British Medical Journal.*

Obituary.

GEORGE HEATON, M.D.

In the city of Boston, on the first of the present month, died Dr. George Heaton, a graduate in medicine at the University of Pennsylvania, 1840, and member of the Massachusetts Medical Society since 1842, a citizen of credit, a man of the sincerest principles of honor, and a physician whose attainments in the practice of an arduous profession were of a high and thorough standard. Unassuming in his deportment, both among and outside the profession, reticent to a degree that always marks the man of earnest calibre, liberal in his views as to the various doctrines that inculcate the masses of humanity, Dr. Heaton filled a place in the community that needs no lasting monument to denote the loss his death occasioned beyond the very attributes of moral and professional standing that this paragraph refers to. Not only to those who were contemporary with him in the service that he followed, but to the citizens of the commonwealth whose adopted son and useful citizen he was, and to suffering humanity who have, by the brilliant exploits of his genius, the direct sympathy of his professional presence, and the explorations of his master mind, reaped health—the one great boon on earth above all others—must any allusion to his career possess more than an ordinary amount of interest.

Dr. Heaton was born in Alton, Illinois, on the nineteenth of April, 1808. Of his earlier days, his schooling and preparation for the profession he had chosen, we have but little knowledge, nor is it essential to the brief allusion to one or two incidents in his career that are intended. In 1840, or immediately about that period, he was physician to the prison at St. Louis, and at that time is dated a discovery which marked an epoch in the life of the physician whose researches brought forth such light, and an era in the history of surgery that ranks high among the blessings of the practice in any age. This was the discovery of the radical cure of rupture, or hernia, reducible and irreducible, and also for the cure of varicocele and hydrocele. What greater favor in the world could be vouchsafed the human family, who, to a degree, far in excess of any other proportion of ills, are victims to a malady so trying to the hopes of those who suffer, and so exhausting to the patience of those whose skill heretofore had so often failed to make the right provision for a remedy? This discovery was the stepping-stone to a career of high professional fame for the inventor of a process, now given to the world; and right here commenced a series of incidents in his career, of which many must have a vivid recollection.

Soon after the proper test had been made of the efficiency of the process, Dr. Heaton, leaving the West, came to Boston, and commenced the practice of medicine in this city, celebrated for the high attainments of its professional men of *all* arts, as well as for the special high order of all the thinking men who have prominence in any range of life. Flushed with youthful pride at what he naturally and justly thought to be a complete revolution of practice upon this great human malady, Dr. Heaton moved immediately to bring out his operation more fairly to the medical profession. There are those who will no doubt remember that he was not much more than courteously received in his first advances to the gentlemen of the profession. The work that he described was so simple, so painless in comparison with the older methods, and so perfectly and concisely stated, that the practitioners here were incredulous than an operation so trifling should be so effective as he described it. Those whom he had invited to attend and witness its performance did not consider it worthy of their attention, and with some coolness of manner did not hesitate to show such appreciation, and this, also, in view of the fact that it had already become known that the inventor had effected radical cures on a number of patients. Not disconcerted in the least, Dr. Heaton went to London, taking with him the *secret* of his invention, determined, in view of the treatment he had received, to give it to the old world, and let it reach the new, if it did, without either his assistance or his favor in any degree beyond his own practice. The operation for hernia was presented to the profession in London, who received it with great cordiality. Dr. Heaton was at once launched upon the topmost round of the ladder of professional skill. His acquirements were readily recognized, and his fame spread in proportion to its great desert. The hospitals of London and Paris were the scenes of his very frequent attendance, and operations were also successfully performed, not only upon the private patients of other physicians, but upon several of the nobility. He soon became a Fellow of the Royal Chirurgical Society of London, of the Westminster and London medical societies, and still later of the Parisian Medical Society of France.

After remaining abroad some time he returned home, and patients flocked to see him from all parts of the world, who were treated and cured by the thousands. His patients becoming so numerous he opened a large private hospital in Boston, which was constantly filled for nearly thirty years. In all this time Dr. Heaton had kept his own experience. He *had* intended to make public the method for curing hernia, and to do so in connection with his only son, Dr. George A. Heaton, U.S.A., who died, however, while young in life and in the practice of medicine, from disease contracted in the service during the late war while serving as surgeon. His death was the signal for at least a temporary defeat of all such projects. The idea was given up. The father, stricken almost into the grave by the loss of the son, closed his utterance to all idea of that character, and was wending his own way towards the tomb, with the invention yet unplaced beyond his own hand; and the profession, though no longer incredulous, longing, for humanity's sake, that its greatness should be placed upon its proper pinnacle, and its fame, already acknowledged, be displayed far and wide. Later in his life, Dr. Heaton, whose health was failing and whose grief for the loss of his only son seemed to become more intense as the months rolled on, formed the acquaintance of Dr. Joseph H. Warren, of Boston, and between these two gentlemen there ripened a friendship of strong character. Dr. Warren was held by Dr. Heaton not only as his friend, but also as his physician in the days when the great mind succumbed to the ravages of illness, and the wasting life acknowledged the necessity of a brother physician's treatment. It was during his last illness that Dr. Warren, in the course of many conversations with Dr. Heaton, induced the latter to give to the public and to the profession a volume explaining the simple methods of the cure that had made him so famous. This need not be described, even if there were space, for "Heaton on Rupture," although but a few years

(less than four) on the list of text-books, is already standard and valuable to the profession, who of necessity, as well as honest candor, must acknowledge the praise that is due Dr. Warren for the persistent argument he used with Dr. Heaton, and the successful result he thus attained in procuring the publication of the volume. In the production of the many papers attendant upon the work, Dr. Heaton was assisted by Dr. J. Henry Davenport, whose skill in the preparation and edition is deserving of no slight praise. To Dr. Warren is due the honor of obtaining for the use of the profession the golden secret, which but for the friendly advice and persistent appeals of that physician would have gone to the grave with the inventor. It might naturally be supposed that before the close of his life Dr. Heaton bequeathed to Dr. Warren the original and simple instruments with which he had performed such a multitude of cures, and in the pursuit of a practice that also followed Dr. Heaton's wishes. Dr. Warren has brought the simple tools into successful use on his own and Dr. Heaton's patients, who are all now referred to Dr. Warren.

Dr. Heaton was the possessor of very great wealth, obtained in his practice. His efforts were worthy of it, and his invention demands that his fame should not suffer with his death. The friendly appeals that induced him, almost against his settled determination to give no details of his discovery and no guide to the future profession of medicine, are as well entitled to their credit, and the act of Dr. Warren in inducing his friend to add another link in an honorable chain that surrounded his career must have its high allowance by medical men and by the world at large.

That honor which is due men for any achievement redounding to the benefit of their fellow-men should never be withheld.

BOSTON, July, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 13 to July 19, 1879.

SMITH, Jos. R., Major and Surgeon. Having reported in person at Headquarters, assigned to duty as Medical Director of the Department, to take effect from 25th instant. G. O. 8, Dept. of Texas, June 28, 1879.

MOFFATT, P., Capt. and Asst. Surgeon. Having reported at Headquarters, assigned to duty at Camp Winfield Scott, Kittitas Valley, W. T. S. O. 81, Dept. of the Columbia, July 3, 1879.

CORSON, J. K., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 75, Dept. of Arizona, June 27, 1879.

KANE, J. J., 1st Lieut. and Asst. Surgeon. Relieved from duty at Jefferson Barracks, Mo., and to report to Commanding General, Dept. of the Missouri, for assignment to duty. S. O. 164, A. G. O., July 15, 1879.

BREWSTER, W. B., 1st Lieut. and Asst. Surgeon. To report in person to Commanding General, Dept. of the Platte, for assignment to duty. S. O. 164, C. S., A. G. O.

BANISTER, J. M., 1st. Lieut. and Asst. Surgeon. Relieved from duty at Columbus Barracks, Ohio, and to report in person to Commanding General, Dept. of the Missouri, for assignment to duty. S. O. 164, C. S., A. G. O.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. Relieved from duty at Willett's Point, N. Y., and to report in person to Commanding General, Dept. of Dakota, for assignment to duty. S. O. 164, C. S., A. G. O.

RICHARD, CHARLES, 1st Lieut. and Asst. Surgeon. Relieved from duty at David's Island, N. Y. H., and to report in person to Commanding General, Dept. of Dakota, for assignment to duty. S. O. 164, C. S., A. G. O.

CARTER, W. F., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Monroe, Va., and to report to Commanding General, Dept. of Texas, for assignment to duty. S. O. 164, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 19, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 12, 1879.	0	4	63	5	78	22	2	0
July 19, 1879.	0	8	69	4	53	22	3	0

HAVANA, AND THE COMMISSION APPOINTED BY THE NATIONAL BOARD OF HEALTH.—Advices from Havana bring the intelligence that the commission appointed by the National Board of Health of the United States for the purpose of studying yellow fever symptoms, development, and treatment, in Havana, is prosecuting its work there assiduously. Much local interest is manifested in the work, and hopes of beneficent results are entertained. During the week ending July 16th there were 117 deaths from yellow fever in Havana. The Commission consists of Dr. Chaillé, of New Orleans; Dr. Gutieres, of Philadelphia; Dr. Sturnberg, of the Army; Dr. Tryon, of the Navy and Col. T. S. Hardee.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION LIBRARY.—At its recent annual meeting, the American Laryngological Association determined to commence a Library, embracing books, monograms, and papers published in this special branch of medicine. It is the present design to establish the Library in the city of New York, and to place it at the service of all who have manifested an interest in the advancement of this specialty by contributions to its literature or other work. Books or pamphlets will be sent on application at the expense of the applicant. All contributions should be sent to the Librarian, Dr. F. H. Bosworth, 26 W. 46th Street, New York.

ANTI-VIVISECTION.—Prayer-meetings for the souls of the physiologists are being held in Edinburgh. Pamphlets are being actively circulated by the London Anti-Vivisection Society, and its agents are delivering lectures at various towns upon the terrible inhumanity of man.

BOOKS RECEIVED.

COMPLIMENTARY DINNER GIVEN TO PROFESSOR S. D. GROSS. By his medical friends, in Commemoration of his Fifty-first year in the profession. Philadelphia: Lindsay & Blakiston. 1879.

Original Lectures.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

A LECTURE DELIVERED AT THE MANHATTAN EYE AND EAR HOSPITAL, IN THE CITY OF NEW YORK.

BY O. D. POMEROY, M.D.

(Reported for THE MEDICAL RECORD.)

PART II.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR—APPEARANCES UPON INSPECTION—GRANULATION TISSUE AND POLYPI—ICHOROUS DISCHARGE—MEATUS TOO SMALL—DEAD BONE—HEALING OF DRUM MEMBRANE—TREATMENT—CLEANLINESS—ASTRINGENTS—MODE OF APPLYING NITRATE OF SILVER—ALUM—ACETATE OF LEAD—CARBOLIC ACID—ARTIFICIAL DRUM MEMBRANE—INCISION OF THE EXTERNAL MEATUS—PROTECTION OF THE EAR—TREATMENT OF GRANULATIONS AND POLYPI—TREATMENT OF DEAD BONE—MASTOID COMPLICATIONS—CEREBRAL SYMPTOMS.

GENTLEMEN:—At the close of the last lecture we were studying the *appearances upon inspection* in a case of chronic suppuration of the middle ear. I had directed your attention to the character of the discharge, to the appearance of the drum membrane, and to a peculiar pulsation sometimes seen in that vicinity. To continue our study, from that point, you may also observe *granulation tissue and polypi*. There seems to be a tolerably gradual progress from a swollen and hyperæmic membrane lining the tympanic cavity to a state of granulation tissue or polypi. The distinction I would make between granulations and polypi is simply one of size. Polypi may reach a size equal to the utmost capacity of the meatus externus, and extend outward so as to be visible at the concha. In such instances it will be seen that the polypus has lost its red color, and has become covered with a layer strongly resembling the epidermis of the skin. It is a kind of cutified mucous membrane. One word with reference to the diagnosis of polypi and granulations. We will suppose we have to deal with a polypus of moderate size. It will be seen as a red and usually rounded body, though it is sometimes nodulated. If we have to deal with what Toynbee calls the strawberry polypus, it will resemble in color and appearance the strawberry. When you see in the ear a rounded mass resembling a polypus, and are in doubt regarding its nature, pass a probe in and touch it, and if it moves considerably you may be satisfied that it is a polypus, and attached by a base somewhat narrower than the diameter of the growth. This manipulation must be done carefully, and, lest undue violence be done, it is well, perhaps, to wind the probe with a very small piece of cotton-wool.

Sometimes you will see an auditory canal that has been excoriated by an *ichorous discharge*. I have seen quite a deep groove running along the lower portion of the meatus caused in this manner.

The meatus is sometimes too large, in consequence of a chronic purulent process with ulceration and atrophy. When such a process extends the entire length of the auditory canal, the meatus externus may be twice the ordinary size. I have frequently observed this in children.

On the other hand, the *meatus* may be *too small*. It was only the day before yesterday that we saw a patient here who had chronic otitis suppurativa, and near the middle of the canal was a narrowing which made the opening so small that it admitted the probe with only the smallest possible quantity of cotton wool wound upon it. In that case it was almost impossible to clean the canal.

Sometimes you will be able to see *dead bone*, but rather infrequently. You can, however, determine its presence by the use of the probe. The rough sensation imparted to it, and perhaps the mobility of a sequestrum, will indicate its presence. If the ear is properly cleansed, however, you will diagnosticate the presence of dead bone without much difficulty. I have reported a case in which the sequestrum involved almost the entire temporal bone, in which the patient recovered, with facial paralysis on the affected side, and, of course, absolute deafness.

HEALING OF DRUM MEMBRANE.

After the granulations or polypi have been removed and the discharge is partly or entirely arrested, healing of the drum membrane usually commences. The process is most interesting to inspect. I have often observed cases in which the changes could be noted for several years, and I have in a few instances been reasonably well satisfied that I have seen delicate bands of reparative material thrown across the perforation somewhat resembling a spider's web. Perhaps we need to exercise the imagination somewhat to make such an observation, but I am sure I have seen it. There is a case here now, perhaps some of you saw it yesterday. There was a perforation which had healed, and the evidence of this was as follows: the site of the inner border of the old drum membrane was indicated by the incurved portion. The new formation was at a somewhat deeper level, filling the gap made by the perforation, and was placed upon the mucous aspect of the drum membrane precisely as a patch is applied to the inner side of a break in a piece of cloth, the edges of the aperture being neatly turned in.

Frequently the perforate membrane will be so sunken that the edges of the perforation are in apposition with the promontory, and, in healing, may become firmly attached to it, thus closing the aperture, either with or without the throwing out of reparative material, and there is a condition produced very much like posterior synechia in the eye. In these cases you may find the drum cavity divided into two parts, and when an attempt is made to inflate the tympanum you can see movements of the anterior portion of the drum membrane opposite the Eustachian tube, while the posterior portion remains uninflated and uninflatable. Again, the membrane may move outwards in the periphery, but with the central adherent portion immovable.

We might naturally suppose, after the drum membrane had healed, that then the process was terminated; but that is not altogether true, and it is extremely interesting to watch these cases further. I have done this in some instances for several years, and have found that the drum membrane undergoes constant changes. These relate chiefly to the tendency in the cicatricial formation to take on continuous connective-tissue degenerations, approaching the condition of true fibrous tissue, and showing many elevations and depressions running in an irregularly radiate manner.

Treatment.—First and foremost in the treatment of this disease is *cleanliness*. Cleansing an ear properly comes almost under the head of a fine art. I very in-

frequently find those who are capable of cleansing an ear as well as it should be done. It is of the utmost importance that the cleansing should be perfect in order to make an exact diagnosis, and it is equally important as the first step in treatment. This is ordinarily done by means of a syringe, but I syringe ears as little as possible to keep them clean. I like to avoid the effect produced upon the drum-membrane by the current of warm water, and prefer to clean the ear by means of cotton-wool. The absorbent cotton furnishes us a most excellent means of removing the discharge; but if the quantity of discharge be great, the syringe must be resorted to. I would advise that the cleansing be done under sight, and that the manipulations should be as delicate and careful as possible. If you do not hurt the patient, it is pretty good evidence that you are not inflicting undue violence. When the ear has been properly cleansed, you may use *astringents*. Perhaps I have done as much as many others to introduce the use of nitrate of silver in the treatment of this disease. In this institution we have been in the habit, for a number of years, of dropping a few drops of a solution of nitrate of silver into the ears in purulent inflammation of the tympanum, with or without polypi and granulations, and certainly we have had better success with it than with any other plan of treatment.

THE MODE OF APPLYING NITRATE OF SILVER

is important. You may take from three to six drops and throw them into the ear with some little violence, draw the solution out, and then repeat the process several times, while the dropping-tube is still inserted in the ear. When that is done, you will find that the solution is stained by the discharge which has not been absolutely removed from the ear. By that means the application is made much more thoroughly than by any other method. [The dropping-tube we use at this hospital consists of a hard rubber catheter, with a soft rubber thimble upon its ring extremity.] If the application trickles down the Eustachian tube into the throat, there is no harm done; but, on the contrary, it may be beneficial. If the perforation in the drum-membrane is small, and it is evident that there is extensive purulent processes going on in the tympanum, and it is impossible to get the agent into the cavity, I should not hesitate to make an incision in the membrane, so that the medicament could be effectively introduced. Politzer's inflation may also be done to cleanse the cavity of the discharge.

The strength of the solution of nitrate of silver used is very important indeed. In this institution we use it of a strength varying from ten grains to the ounce to a saturated solution. Several years since I reported in the *New York Medical Journal* a case of this disease. The man was doing very well under the use of a strong solution of nitrate of silver, but the treatment seemed inadequate, and I finally used several drops of a 480-grain solution as previously described. It caused no pain, no discomfort, except a slight feeling of warmth, and the single application cured the patient [the membrane had a small perforation, with a little granulation attached to its border]. I may also say here that if there is evidence of purulent inflammation of the tympanic cavity without perforation, or with perforation too small to permit of the introduction of the solution into the cavity, a strong solution painted upon the drum-membrane will frequently arrest the purulent process. I commonly apply the nitrate of silver every second day. The solution should not be strong enough to cause pain.

Alum may be used either in powder or in saturated solution. An objection to this remedy is, that it forms the so-called alum curds, which produce a similar effect to foreign bodies in the tympanic cavity.

There is an empirical element in the treatment of this disease. We do not always know certainly that any given remedy will agree with the patient, and may, therefore, be obliged to change from one to another. *Acetate of lead* is a valuable remedy, and may be used in solution varying from two to ten grains to the ounce of water. A few drops may be introduced into the ear several times a day. *Carbolic acid* is a popular remedy. It has fallen somewhat into disrepute, yet it is valuable, and it has the additional advantage of being disinfectant. It may be used of the strength of from two to four grains to the ounce of water. I have but little to say with reference to the use of washes in the ears to correct the odor of the discharge, for if the latter is arrested there will be little or no fœtid smell. It would be comparatively useless to throw in a quantity of disinfectant fluid when there is present a quantity of decomposing and nasty discharge. First cleanse the ear, and then apply remedies which arrest the discharge, and you will have but little need of disinfectants. Besides the carbolic acid you may use the liq. sod. chlo., a drachm to the ounce of water several times daily as a disinfectant. *Sulphate of zinc* may be used of the same strength as the acetate of lead and in the same manner. If you have to deal with a case in which there is a relaxed condition of the lining membrane of the tympanum, it will be well to use absorbent cotton-wool and pack the cavity as full as possible. To do this well there should be little or no drum membrane left, and only a moderate amount of discharge. The cotton may remain in the ear from a few hours to several days, but should be removed whenever it feels uncomfortable.

An artificial drum-membrane is sometimes recommended to close the cavity and protect it from atmospheric changes. I have almost entirely discontinued its use for the reason that it acts like a foreign body, produces irritation, and excites discharge.

PROTECTION OF THE EAR.

I would recommend the patient to wear cotton in the ear constantly until he is cured. The cotton should be placed loosely in the ear and removed as often as it becomes in the least moist. We wish to avoid anything like maceration of the part, and desire to induce a state of dryness as far as possible. At the Foundling Asylum I observed that the meatus in a considerable number of cases was much too large, and in a certain other number so narrow that only a small probe could be passed in, so that a quantity of muco-pus was constantly retained.

On several occasions I incised the external meatus in a number of places in order to allow the discharge to have free exit.

TREATMENT OF GRANULATIONS OR POLYPI.

I am in the habit of treating granulations or polypi as follows: First, remove them. If the polypus is of considerable size you may remove it by a *Wilde's snare*.

But the snare is an extremely impracticable instrument, and I now rarely use it. It causes more pain than the forceps, and it will not succeed unless the polypus is of considerable size and quite pedunculated. I depend almost entirely upon *forceps* for removing these growths. For that purpose almost any variety of small forceps will answer. Small nasal forceps answer very well indeed.

The most artistic forceps are those devised by the

late Mr. Hinton, of London. But they are somewhat complicated, and expensive. I would avoid a *speculum*, if possible, in operating; but if the polypus is small you will be able to use a speculum to good advantage. I have devised a pair of mouse-toothed forceps that may be opened conveniently in a somewhat narrow speculum. It is a good instrument for removing extremely small granulations.

The moment you lacerate a polypus it will usually bleed excessively. You should therefore begin your operation by knowing where it is attached, and remove it with rapidity to avoid the hemorrhage that will embarrass your movements. If the drum membrane is pretty well swept away, you need have little fear of doing harm to the contents of the tympanum. To avoid the embarrassment of the hemorrhage you may drop in a solution of nitrate of silver, or the liquor ferri persulph.

The nitrate of silver renders the polyp more friable than before, and less slippery, causing it easier to be caught with the forceps, for these polypi are often as difficult to seize hold of as a jelly-fish would be.

After removing as much as possible of the polypus, you have to depend upon cauterization for the completion of the cure. I always begin with the *nitrate of silver*. For that purpose I employ the crystals, in saturated solution. My method is to take a fine probe, wind the tip with a piece of cotton, dip it in the solution, remove the excess by wiping on blotting-paper, and then apply it to every remaining portion of the polyp until it is completely whitened. If the nitrate of silver does not succeed very well, I then use the strongest *nitric acid*. This should be applied a little more carefully than the nitrate of silver, and in the same manner, for if the nitrate of silver touches adjacent parts it does but little harm, whereas the nitric acid may do much mischief. These agents failing, I use the acid nitrate of mercury. It has a similar effect to the others, but the reaction is often quite excessive. It is used in the same manner as the nitric acid, but is a remedy which must be used cautiously.

Burnt alum is sometimes of valuable assistance in removing granulations and bases of polypi. Of late *iodoform* has been used, and in some cases it does very well indeed. One objection to the remedy is its disagreeable odor.

TREATMENT WITH REFERENCE TO DEAD BONE.

Any directions regarding removal of dead bone may seem superfluous, but I will simply say that if the sequestrum is of considerable size, is moderately loose, and can be removed with the forceps without much violence, you can remove it. In the case which I have already referred to, I made several attempts to remove the dead bone. Each attempt was followed by considerable hemorrhage. By the advice of my colleagues, I desisted from using further violence, and after a time it came away of its own accord. If you find a spot of dead bone, polypi are almost always present in its vicinity, and you can introduce a properly constructed gouge, and chip away the necrotic bone, or a dentist's drill may be used for this purpose. As a rule this is not necessary, for the sequestrum usually exfoliates by natural processes.

Mastoid complications frequently occur in this disease, and it may become necessary to trephine, or to cut down and gouge out dead bone.

To combat cerebral symptoms, frequently developing in this disease, the general indications are to prevent any accumulation of discharge in any of the cavities of the ear, including the mastoid cells.

Original Communications.

REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM IN CONJUNCTION WITH FREE SUPPORTING DIET, AS MEANS OF DEFENDING THE SYSTEM AGAINST THE DANGERS OF THE OPERATION: ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

PART III.

CASE V.—*Both Ovaries Involved—Left, Seat of a Multilocular Cyst with Pedicle Looped over Corresponding Round Ligament of Uterus, and Twisted upon Itself Seven Times—Never Tapped—But Slight Emaciation—The Value of Dulness on Percussion over One Loin as Diagnostic of the Location of the Tumor Illustrated—Tinct. of Iron and Quinine Used before the Operation—Double Ovariotomy with Antiseptic Precautions—Small Incision—Adhesions and Hemorrhage Unimportant—Both Pedicles Ligatured—No Drainage-Tube Used—Early and Continuous Support of the System by the Mouth and Rectum—Quinine with Opium Commenced, per Rectum, Two Hours after Operation—Peritonitis Violent—Resulting Fever High—Cinchonism at the End of Twenty-four Hours, with Control of the Pulse and Temperature—Speedy Recovery.*

Mary C., of Ulster County, N. Y., aged 22, unmarried, seemingly in strong and robust health, but slightly emaciated, was admitted to the Woman's Hospital January 9, 1879, with an abdominal tumor about the size of a man's head; girth of abdomen, thirty-five inches. In January, 1878, first noticed a diminution in the menstrual flow, and occasionally a deep pelvic pain, attended with more or less weariness upon walking or standing. About three months after this perceived, in the left iliac region, a small tumor, which could be easily pushed with the hand from side to side. Began now to have pains in the small of the back, the left hip, the left thigh, the left groin, and the left labium pudendi, which were always greatly increased just before and during the menstrual period, and after severe exercise. The examination of this tumor showed it to be of the left ovary, and probably of the polycystic variety. It rested mainly in the left iliac and lumbar regions, but could be readily pushed far over to the right side, especially its upper part. Owing to the great thickness of the abdominal walls, only a slight sense of fluctuation could be detected. In this particular it had very much the character of a solid tumor. The uterus measured two and a half inches, was anteflexed, and the fundus was drawn to the left side to almost a horizontal position. Percussion over the left loin elicited dulness. The tumor had not been tapped, nor was this deemed necessary at the time of the examination to complete the diagnosis. The great mobility of the tumor, its apparently long pedicle, and the freedom from extensive adhesions, fully justified, it was believed, an operative procedure.

In addition to the ordinary preparatory treatment of daily tepid baths with vaseline inunctions, regulation of the diet, and attention to the bowels, tincture

of iron, in fifteen-drop doses thrice daily, was ordered. Ten grains of quinine, given the morning before the operation, which was performed January 24th. At 2 P.M. the operation (antiseptic) was commenced by the small incision. The introduction, first of the flat abdominal searcher, and then of the hand, showed the way to be clear. Several cysts, one after another, within the tumor, were tapped, and the contained fluids found to be of different shades of color. In all, the fluid was thin, in one quite like water, and in another, the largest, dark grumous-looking. No adhesions of any account were found to exist, but when drawing the cyst through the wound, the pedicle was discovered to be twisted upon itself seven times, and looped around the corresponding round ligament of the uterus. In addition to the looping of the pedicle, the fold of the peritoneum containing the ovarian ligament was found to have been divided and cicatrized down to the latter, through constant friction or rubbing of the round ligament. In fact, the ovarian ligament was completely bare, and no doubt would itself have soon been divided by the same processes of traction and attrition. The twisted pedicle having been uncoiled, tied, and dropped in the usual way, attention was next directed to the condition of the other ovary. This was found the seat of commencing cystic degeneration, and was likewise removed in the manner described. There was considerable oozing of blood, which required long sponging. Afterward the wound was dressed antiseptically, as usual.

This specimen I presented to the New York Pathological Society, with an explanation of the probable mode by which the parts involved were brought into the rare and unique relationship above mentioned. (See reports of the Society, published in the issue of the New York Medical Record, Vol. xv., No. 15.) Weight of tumor and contents not ascertained. Duration of the operation, fifty-nine minutes.

AFTER-TREATMENT.

Per orem: Nothing. Hypodermically, Magendie's sol., ♏x. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒiss. General condition: Slight nausea from the anæsthetic; urine to be drawn every six hours.

Evening: Pulse, 108; temp., 101⅘° F.

January 25th.—Morning: Pulse, 124; temp., 102⅘° F. Per orem: Milk porridge, ℥vi.; whiskey, ʒv. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., ʒij.; mashed beef, ℥viij. General condition: Slept the greater part of the night, and a good deal to-day; complains of some pain; skin hot, but not dry; feels faint at times; urine dark-colored, though sufficiently free; vomited once; dreams in her sleep; no tympanites; *cinchonized* at the end of twenty-four hours.

Evening: Pulse, 140; temperature, 103⅗° F.

January 26th.—Morning: Pulse, 118; temp., 100° F. Per orem: Milk and lime-water, ℥iv.; beef-tea, ℥ij.; whiskey, ʒi. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., ʒiss.; mashed beef, ℥iv. General condition: Slept only about an hour during the night, and but little more during the day; nausea and vomiting more or less all the time; throws up occasionally a dark brownish material; has but little pain or tympanites, but complains of a burning feeling inwardly; pulse full and strong; skin dry; headache; urine still dark-colored, but quantity sufficient; wants ale to drink.

Evening: Pulse, 112; temp., 101⅕° F.

January 27th.—Morning: Pulse, 110; temp., 100⅕° F. Per orem: Milk and lime-water, ℥iv.; whiskey, ʒi.; tinct. of ginger frequently. Per rectum: Sulph. quinine, grs. xxxv.; liq. opii comp., ʒiiss.; mashed beef, ℥viij. General condition: Slept more during the night, but is restless and moans; much less nausea and vomiting; complains almost always of abdominal pain after vomiting; fluid thrown up greenish in color; menstruation appears; pulse fairly strong; skin still a little dry; urine drawn at regular intervals, which is still dark-colored, but not turbid; bowels moved; *tinnitus aurium* continues; tympanites very slight.

Evening: Pulse, 110; temp., 101⅕° F.

January 28th.—Morning: Pulse, 98; temp., 101⅕° F. Per orem: Milk and lime-water, ℥iv.; beef-tea, ℥ss.; whiskey, ʒij.; tinct. ginger and bicarb. soda occasionally. Per rectum: Sulph. quinine, grs. xxxvij.; liq. opii comp., ʒij.; mashed beef, ℥viij. General condition: Passed a comfortable night; slept a good deal; only slight nausea and vomiting; feels some distress in the epigastrium, but no pain; face flushed at times; pulse softer; skin soft and moist; urine clearer. Ordered mixture of citrates of potash and lithia every three or four hours. Menstruation continues.

Evening: Pulse, 100; temp., 101⅕° F.

January 29th.—Morning: Pulse, 94; temp., 100⅕° F. Per orem: Milk and lime-water, ℥xvi.; whiskey, ʒiij.; mixture of potash and lithia. Per rectum: Sulph. quinine, grs. xxii.; liq. opii comp., ʒij.; mashed beef, ℥vi. General condition: Passed a comfortable night; vomited only once; no tympanites or pain; sleeps enough; pulse good; skin moist and pleasant; bloody uterine discharge continues; urine dark, but less turbid.

Evening: Pulse, 96; temp., 101⅕° F.

January 30th.—Morning: Pulse, 96; temp., 100⅕° F. Per orem: Milk and lime-water, ℥xx.; whiskey, ʒiij.; mixture of potash and lithia. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., ʒiss.; mashed beef and pancreatine, ℥ij. General condition: Complains of nothing, and sleeps sufficiently; bloody uterine discharge less; urine clearer; dressings of wound found to be offensive; removed and sutures taken out; wound completely closed, except a small point at the lower angle. From this opening there had been a considerable bloody discharge, causing the offensive odor; but this was discovered to be from the line of incision, and not the peritoneal cavity. Adhesive strips and new carbolized dressings applied.

Evening: Pulse, 104; temp., 100⅘° F.

January 31st.—Morning: Pulse, 86; temp., 100⅖° F. Per orem: Milk and lime-water, grs. xx.; whiskey, ℥i.; beef-tea, ℥ij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒij. General condition: Vomited twice this morning, but is progressing well in every other particular; wound examined and dressing renewed; discharge only slight, and almost without odor.

Evening: Pulse, 100; temp., 100⅖° F.

After this nothing worthy of note occurred. The next day both the pulse and the temperature fell below 100, and only once or twice afterward reached this point. The quinine in five-grain doses, with the usual quantity of opium, was continued till the ninth day, and then discontinued entirely. During the week of active treatment 225 grains of quinine and 15 drachms of liq. opii comp., with one hypodermic, were taken, and the balance of the time 50 grains of the former and 3 drachms of the latter, making in all: quinine, 275 grains; and liq. opii, 18 drachms. Week's average of pulse, 105; of temp., 101°. Convalescence was uninterrupted.

CASE VI.—*Multilocular Cyst of Left Ovary—Ovarian Associated with Persistent Fever and Ague—Never Tapped—Present Incomplete Procidentia Uteri and Persistent Headache—But little Emaciation—The Value of Dulness on Percussion over one Loin as Diagnostic of the side of the Tumor Confirmed—Iron, Salicin, and Quinine given before the Operation—Ovariotomy with Antiseptic Precautions—Small Incision—Adhesions Extensive—Hemorrhage Moderate—No Drainage-Tube—Pedicle Ligatured—Early and Continuous Nourishing Diet by the Mouth and Rectum—Quinine with Opium Commenced per Rectum one and a half Hours after the Operation—Peritonitis Mild—Cinchonism at the End of Forty-eight Hours—Pulse and Temperature for the Week almost Normal—Speedy Recovery.*

Anna M., of this city, aged 22; German, unmarried; healthy looking; was admitted to the Woman's Hospital March 4, 1879, with an abdominal tumor and girth of thirty-nine inches. She stated that in the autumn of 1877 she contracted fever and ague, which continued to recur at intervals from that time until the following April (1878), and that associated with this there was "falling of the womb." She then noticed that the menstrual flow was becoming more and more scanty and light-colored. Soon after she began to have deep pelvic pains, and found it difficult to turn in bed or leave the recumbent posture. A month or two later she discovered that her abdomen was considerably enlarged. For this and her womb trouble she sought advice in one of our general hospitals. After leaving this institution and applying to my friend Dr. S. T. Hubbard, of this city, for further treatment, she was advised by him to consult me. Upon examination at the time of admission into my service, I found the tumor reaching considerably above the line of the umbilicus. It was more prominent upon the left than the right side, and indicated, by its uneven surface, that it was probably of a polycystic character. Flatness on percussion to the left of the lumbar spine, coupled with the indications mentioned, led me to conclude that probably the left ovary was the one involved. The uterus, three inches in depth, was found in a state of incomplete procidentia; that is, it lay across the perinæum and projected beyond the vulva about one-half its length—certainly a very unusual complication of an ovarian cyst. The tendency of the latter usually is to drag the uterus after it, and not to push it out of the vagina. The tumor had never been tapped. The patient stated that she had had constant headache ever since the tumor showed itself.

Some five or six days before the operation the patient was put upon the use of tinct. of iron, 15 drops three times a day; but it was soon discovered by her that her headache was greatly increased by the medicine, and it was thereupon discontinued. Salicin, in fifteen-grain doses thrice daily, was substituted, and continued up to the night before the operation, when it was stopped, and ten grains of quinine ordered. The following morning ten grains of the latter, with one grain of opium, was again ordered. This, together with daily tepid baths, inunctions, and the clearing out of the bowels, constituted the course of preparatory treatment. Careful measurement of the abdomen now showed a diminution in the girth of one and a half inches, and a proportionable increase of the mobility of the tumor itself.

Operation, March 21st.—At 2 P.M. the operation, under carbolic spray, was commenced. Small Incision. Extensive adhesions of the tumor to the omentum and abdominal walls. Only a small space, comparatively, to the right of the incision was found free, but nowhere were the adhesions very thick and resisting. The left ovary was found to be the seat of disease, and of the multilocular form, as diagnosticated. It was made up of a large number of cysts, containing jelly-like material of different consistencies, and even fluid almost limpid. Only three or four of the largest needed to be tapped in order to enable me to draw the mass through the wound. After tying and dropping the pedicle as usual, the peritoneal cavity was thoroughly cleared of blood and débris, and then the wound united with waxed carbolized sutures and dressed antiseptically. No drainage-tube used. Weight of the tumor and contents, fourteen pounds. Duration of the operation, fifty-five minutes.

AFTER-TREATMENT.

Per orem: Nothing. Magendie's sol., hypodermically, ℥viij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ʒi.; mashed beef, ʒij. General condition: About one hour and a half after the operation, took first portion of quinine and opium; has vomited twice from the anæsthetic; slept two hours; pulse good, and skin moist.

Evening: Pulse, 114; temp., 99° F.

March 22d.—Morning: Pulse, 92; temp., 99⅛° F. Per orem: Milk and lime-water, ʒv.; milk, ʒi.; milk porridge, ʒi.; Magendie's sol., hypodermically, ℥x. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., ʒij.; mashed beef and pancreatine, ʒviij. General condition: Passed a good night; has not vomited since the effects of the anæsthetic passed off; some pain; drowsy, and sleeps quietly; pulse good; skin soft; urine normal; no tympanites.

Evening: Pulse, 100; temp., 100⅛° F.

March 23d.—Morning: Pulse, 98; temp., 99⅛ F. Per orem: Milk and lime-water, ʒx.; milk porridge, ʒiv. Per rectum: Sulph. quinine, grs. lv.; liq. opii comp., ʒij.; mashed beef and pancreatine, ʒvi. General condition: Complains of nothing, and sleeps nearly all the time; one portion of the beef emulsion rejected by the rectum; thoroughly *cinchonized* at the end of forty-eight hours.

Evening: Pulse, 76; temp., 99⅜° F.

March 24th.—Morning: Pulse, 80; temp., 98¼° F. Per orem: Milk and lime-water, ʒij.; milk porridge, ʒiv.; milk, ʒxij. Per rectum: Sulph. quinine, grs. xlv.; liq. opii comp., ʒij.; mashed beef and pancreatine, ʒvij. General condition: Slept nearly all night; no febrile symptoms, except a little headache, and turbidness of the urine, but in every other particular the condition is entirely satisfactory; no tympanites.

Evening: Pulse, 86; temp., 101° F.

March 25th.—Morning: Pulse, 80; temp., 99¾° F. Per orem: Milk, ʒxxv.; milk porridge, ʒiij. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., ʒij.; mashed beef and pancreatine, ʒxi. General condition: Passed a comfortable night, and is progressing as satisfactorily as could be wished; *cinchonism* continues.

Evening: Pulse, 86; temp., 100° F.

March 26th.—Morning: Pulse, 79; temp., 99⅜° F. Per orem: Milk, ʒxl.; milk porridge, ʒvi.; beef-tea, ʒv. Per rectum: Sulph. quinine, grs. xxv.; liq. opii comp., ʒij.; mashed beef and pancreatine, ʒix. General condition: A little restless in the fore part of the night, but, excepting this, there is no unfavorable indication to note; no tympanites.

Evening: Pulse, 74; temp., 98⅛° F.

March 27th.—Morning: Pulse, 74; temp., 98⅛° F.

Per orem: Milk, ℥ xxix.; milk porridge, ℥ xij.; beef-tea, ℥ iv. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., ℥ ij.; mashed beef and pancreatine, ℥ viij. General condition unchanged.

Evening: Pulse, 78; temp., 99½° F.

March 28th.—Morning: Pulse, 78; temp., 98⅘° F. Per orem: Milk, ℥ xl.; milk porridge, ℥ xxxij.; beef-tea, ℥ xiv. Per rectum: At 9 P.M. last night all medication and alimentation by this mode were suspended. General condition satisfactory in every particular; bowels moved once; sutures removed, and union of the wound found throughout, excepting one small superficial point; not a particle of pus in the tracts of the sutures; adhesive strips applied, with renewal of antiseptic dressings and compress.

Evening: Pulse, 78; temp., 98⅘° F.

No further medication being found necessary, the treatment was reduced to simply watching the patient and attending to her diet. The quantity of quinine taken during the six days of active treatment was 245 grains, and of the liq. opii comp., 13 drachms, with two hypodermics of Magendie's sol. of morphia. Week's average of pulse, 92; of temp., 99⅗°. Recovery in the highest degree satisfactory. The procident uterus returned to a simple prolapsed condition, and called for a mechanical support.

Since the foregoing portion of this paper was in great part written I have performed two more ovariotomies in the Woman's Hospital, and from the very great interest attached to these cases I append their results,* believing that they largely contribute to the support of the views I have thus far endeavored to maintain. The first case recovered promptly without an untoward symptom; occurred in an unmarried woman, æt. 29; first abdominal enlargement noticed about one year ago; anæmia and emaciation marked, and cyst unilocular and firmly adherent. The second case was cancerous, and complicated with ascites and exhaustion; the patient died sixty-one hours after the operation.

In the two appended cases nearly the same general course was pursued as set forth in the above series. In the first case, owing to the complications present, the operation was more protracted than in any one of the series, the time taken being one hour and a quarter; but if it be correct, as shown by the report of Dr. Welch on the character of the tumor, that the origin was ovarian and not uterine, as was supposed, then there is no unusual importance to be attached to this circumstance. In the second case, however, the operation and its result stand in a light totally different from any one of the series given, since the disease for which the operation was performed was of a carcinomatous nature, and if its diagnosis had been clearly made out, I should not have performed the operation. But the diagnosis failing to a certain extent, the operation was performed, and the question now is, what disposition shall be made of the result? As viewed from a statistical standpoint it must be counted, but as regards the practical value of the general plan of preparatory and after-treatment for the operation of ovariotomy intended to be prominently brought out by this paper, the result in the case cannot, strictly speaking, be considered of any account. To make the most of the case, however, under the circumstances, it is claimed that even the final result of the operation, bad as it was, does not invalidate in the slightest particular the correctness of the principles of practice above mentioned. The value of this was just as clearly and satisfactorily demonstrated, up to within a few hours of the death of the patient, as it was in any one of the series presented. The failure recorded is not in the quinine and opium treatment in conjunction with nourishing diet, to prevent, to moderate, or to control high temperature, since this was actually accomplished by the treatment in a more or less marked degree; but in the existence of a malignant disease, for the cure of which the resources of our art have not yet provided an adequate remedy.

General Remarks.—An examination now of the histories of the series of six cases upon whom ovariotomy was performed shows the following: The age of the patients varied from 22 to 65, the average being 39¾ years. One was married without offspring, two were widows who had borne one and two children respectively, and three were unmarried. In four cases general anæmia and emaciation were marked, and in the other two these conditions were present, but less appreciable on account of the shorter duration of the disease. In five cases percussion over the loins materially aided in the establishment of the diagnosis of the ovary involved. In one case the method failed on account of the increased length of the pedicle and the peculiarity of the fixation of the tumor on the opposite side. In the first two cases no particular attention was paid to the preparation of the system for the operation, further than to use for a few days the warm bath followed by vaseline inunctions and to clear out the bowels the night before. In the other four cases there was more or less preparation; for example, nourishing and supporting diet was employed in one; the same and quinine in another; the same with tincture of iron and quinine in a third; and the same with salicin and quinine in the fourth. The time taken for the operations varied from twenty-seven to sixty-two minutes, the average being fifty-two minutes. In all the operations the antiseptic method of Mr. Lister was employed. The small incision was adopted in five, and the medium in one operation. In four cases the parietal, omental, and mesenteric adhesions were extensive, resisting, and difficult to overcome, but unimportant in the remaining two. In three cases both ovaries were found diseased and were removed. In one case an ovary had passed around one of the round ligaments of the uterus and was followed by several coils of the pedicle. In all the cases the pedicle was transfixed with a double waxed carbolized silk ligature, then tied right and left, cut and dropped. No drainage tube was used in any case, and in only one was a tent left in the lower angle of the wound. In five cases the abdominal wound was closed with waxed carbolized silk sutures made to include the peritoneum. Through mistake the abdominal wound, in one case, was closed with plain silk sutures, and although no harm followed further than suppuration in their tracks, they are not to be recommended. In three cases the resulting peritonitis was violent, in one moderate, and in the remaining two mild. In one of the first two cases there were evidences of inflammatory products in the peritoneal cavity, but with no other result than protracted recovery (this was the Case in which cold water affusions over the abdomen were employed for forty-four hours); and in the other there was suppuration and discharge of pus through the wound on the ninth day, which resulted, as a matter of course, in protracted recovery. In the remaining four cases the recoveries were all prompt. In all six cases the average of the pulse for the week of active treatment was 98; that of the temperature for the same time, 100° F. In five cases free nourishment both by the mouth and rectum was em-

* The [illegible] in the reprint.

ployed, and in one by the mouth alone. In four cases nourishment by the rectum was commenced during the first day, and in two, by the mouth. In all six cases quinine and opium were given in combination, and invariably by the rectum. The quantity of the former given per day varied from 18 to 40 grains, the average being 26¼ grains, and that of the latter (liq. opii comp.) for the same period, from 1½ to 2¼ drachms, the average being 1⅞ drachms. In two cases the remedies were commenced one hour after the operation, in one two hours, in one eighteen hours, in one thirty hours, and in one (the first of all) seventy-two hours; the changes in time, for the most part in the series, being in the inversed order here given. In four cases decided cinchonism was produced, and in two, if present at all, it was so slight as not to be perceived by the patient.

Of the eight results recorded, seven were complete cures, giving a mortality of 12½ per cent —7½ per cent. less than the average mortality attributed in the outset of these remarks to the practice of all operators. Again, counting the number of diseased ovaries removed, eleven, with only one failure by death,—which is a legitimate mode of presenting the subject—and the comparison is placed in a still better light. The failures would then stand at 9 per cent.

These eight cases, with one (successful) previously reported in this journal (Sept. 1, 1866), comprise my entire experience in the operation of ovariotomy, and altogether show a death-rate of 11.11 per cent. Prof. Nussbaum has said that if a surgeon could commence his career as an ovariotomist with the experience of twenty operations, he might expect in the course of time to record a respectable average of success. If the results here recorded teach anything, it is that a mere tyro may do this as well as the self-constituted ovariotomist with his twenty embodied experiences, if he will take the trouble to make himself familiar with the principles of the operation, and is patient and painstaking in all its requirements and details.

I think I have proven by my experience thus far that Prof. Nussbaum is in error, and that it is even possible for an ovariotomist to commence with a respectable average of success, if, as stated, he will only take the pains and trouble to do his work well, and above all, to bear in mind the time-honored maxim, credited to Sir Astley Cooper, "An operation done well, is done soon enough."

I know of no operator in this country who has cured eight out of nine of his first cases—88.89 per cent., the entire mortality being due to cancer; nor do I believe the records of the profession in Europe afford another example of an operator having secured in his *first* cases eight consecutive successes—100 per cent.

There are many eminent ovariotomists both at home and abroad who have had far greater success in a larger number of cases. To this fact I have already alluded. But their great success was not obtained at the beginning, nor can its superiority be used as an argument against a method which, so far as it has been tried, has yielded results quite as favorable, viewed from a scientific standpoint.

In conclusion, I wish to express my great obligations to my assistants, Drs. J. E. Janvrin and Henry Goldthwaite, for their full co-operation in carrying out the details of these operations. I am also under personal obligations to the house-surgeons, Drs. J. G. Perry, F. H. Hoadley, and Geo. E. Munroe, who deserve great credit for the patient faithfulness with which they watched these cases, and for the general accuracy of their observations and records of the after-treatment and its effects.

THE TREATMENT OF URETHRAL STRICTURE BY "SLOW" DIVULSION."

By GEORGE M. SCHWEIG, M.D.,

NEW YORK.

When I published a description of a new dilator (Medical Record, No. 443), I had under treatment quite a number of cases of stricture, while others, with whom active treatment had been suspended, were under observation. In support of what I then claimed for the new instrument, I am now in position to furnish ample clinical proof, in the shape of a number of cases from private practice, but all accessible. While I will be first to admit that in none of the cases has the period of observation been as yet sufficient with certainty to predicate permanence of results, still I do not feel justified in withholding from the profession, for an indefinite time, facts the general knowledge of which I believe will prove conducive to the welfare of a large class of sufferers. When the gravity of the disease and the insidious development of incurable sequelæ are considered, I cannot but believe that the profession will gladly welcome a method of radical cure that is safer and less heroic than any other, and at least equally reliable.

Thus far my therapeutic results compare very favorably with those claimed for any other method, or a like method with other instruments. In judging of final results, I think some weight should be accorded also to the manner of obtaining them. If, therefore, equally good results can be arrived at by various methods, in one of which pain, danger, and liability to accidents are reduced to a minimum, while the history of the others bristles with instances of more or less serious hemorrhages, shock, urethral fever, urinary infiltration, and deaths, the preference is obvious. I have used my instrument now between seventy and eighty times, often dilating to 40 and 43 Fr., with not a single one of the accidents that are so common with urethrotomy as well as over-distention by other instruments. In no instance was there any reaction that amounted to anything, the average reaction being in fact far less than that attending the use of the ordinary sound or bougie. Not one of the patients was even for an hour prevented from pursuing his ordinary avocations. The mildness and safety of the treatment, therefore, leave nothing to be desired. For the few aphoristic remarks relative to the procedure contained in the paper above referred to, I propose now to substitute a somewhat more extended elucidation.

The term "Slow Divulsion," which I have chosen to designate the method, explains itself. Yet it is, from an anatomical standpoint, not always correct. By divulsion is meant rupture of a stricture. This is ordinarily obtained by rapid and forcible over-distention to a degree sufficient to accomplish the object, and is by no means a mild proceeding. It will be readily conceded, however, that if a stricture can be distended to a sufficient degree to destroy its resiliency—even though the process stop short of actual divulsion, all that is therapeutically requisite will have been accomplished. The object is to widen the urethra at a certain point or points, and prevent its recontraction, and if this can be accomplished by the over-distention of fibres without their actual rupture, it is equally well. In such instances, then, the term divulsion would be inaccurate. Wishing, however, to avoid a complex term, I have chosen for my method the above designation, as more nearly answering for the majority of cases than any other

that occurred to me. For the *modus operandi*, I refer the reader to the article previously mentioned.

Leaving aside impermeable strictures, for which by necessity either external or retrograde internal urethrotomy must precede all other measures, my experience has led me to consider urethral stricture a very simple matter, and easily disposed of. The chief difficulties that have heretofore presented themselves in its treatment were, 1, resiliency, and 2, the usual disproportion between the meatus and the other portions of the urethral canal. The latter of these difficulties has of late years been surmounted at the hands of some surgeons by enlarging (cutting) the meatus, at the cost frequently, however, of not only a disfigurement, but a serious disturbance of the urinary function. Both difficulties are obviated by my instrument, which possesses so great a percentage of distending power, that its employment makes it unnecessary to cut any but an abnormally small meatus (*vide* description of instrument).

In dealing with urethral stricture I have altogether abandoned after-treatment. The continued use of sounds for an indefinite period after other radical cures, so-called, I have found entirely unnecessary; and it is reasonable that it should be so. The sole object of its practice is to prevent recontraction. And if we go farther, and inquire into the nature and causes of this dreaded recontraction, we find it is twofold, viz.: First, that due to resiliency; second, the cicatricial contractions that follow both urethrotomy and divulsion with unsuitable instruments—where tissues are lacerated. If my method—as I claim—destroys resiliency without producing traumatism, it is obvious that neither of these two causes can obtain. I consider this dispensing with after-treatment a very important factor, because, instead of spinning it out to an indefinite period, it reduces the treatment of stricture to a few days or weeks. I have thus far asked my patients to call on me at first once a month, and then every three or six months, for a time, in order simply to pass a bulbous sound. Of the cases discharged as cured, I have as yet to record a first relapse.

It is a well-known fact that a large number of men, well up in years, suffer tortures from incurable affections of the bladder, kidneys, prostate, etc., referable to long-existing stricture. To reduce these cases to a minimum by *curing* stricture in its early stages is therefore a great desideratum. Now, there is a circumstance, very ridiculous from a scientific, but very formidable from a practical standpoint, that stands in the way of curing stricture more frequently than one would imagine. As every physician knows, most people stand in great dread of being cut; and where the necessity of this is insisted on as a means of radical cure, a large percentage prefer the disease to the remedy.

I have thought it unnecessary to ask the reader to wade with me through the dry details of cases, deeming it equally sufficient to epitomize these in the shape of results. I will add my earnest hope that both the method and the instrument (and I consider them inseparable) will receive an extensive trial at the hands of the profession, and I have no fear as to the results or the verdict.

495 Lexington Avenue.

Relief of Itching.—Pilocarpine has been used with success for the relief of itching in jaundiced patients. One-third of a grain is given hypodermically every night.—*Brit. Med. Journ.*

Reports of Hospitals.

PENNSYLVANIA HOSPITAL.

A SURGICAL CASE OF UNUSUAL INTEREST.

A man of forty was admitted to the Pennsylvania Hospital, Philadelphia, on the 27th of April last, in the following extraordinary condition. There was a lacerated wound on the top of his head, three inches long by an inch and a half wide, and very deep. The integument had sloughed or been torn away, the bones were missing, the dura mater was exposed and sloughing, and the brain could be seen pulsating at the bottom of the foul mass. Strange to relate, the patient was perfectly rational, and gave the following remarkable account of himself: He was first officer in a three-masted schooner sailing from the West Indies to New York with a cargo of sugar. He had worked very hard at loading the vessel in the heat, and for two days and nights after sailing for home he was constantly on the watch. He suddenly became ill, and conceived the idea that the captain and crew were going to murder him and throw him overboard. To frustrate them he thought he would take his own life, and tried to jump overboard, but was prevented from doing so. On the fourth day out, when off Cape Hatteras, he got possession of an axe, and dealt himself several blows on the top of his head with the handle, fracturing his skull. He then, with the sharp edge of the axe, chopped out the softened mass, and picked away pieces of the bone. After this his head (mind) got better, he said. On the 25th of April, four days after inflicting the injury, the vessel arrived at New York. The patient walked to the cars and came to Philadelphia. He said that he was a temperate man; that he only took an occasional drink, and that he was not intoxicated when he injured himself. His appearance certainly did not indicate a man of intemperate habits. His story was so unlikely that it was, of course, doubted; but no cross-examination could elicit any contradictory statements, and he persisted in it to the last, bringing no accusation against any one—in fact, volunteering the declaration that the captain and crew were the best he had ever sailed with.

The patient remained in the hospital until May 31st, when he died. All pressure had been removed early in the treatment of the case, except where, as it was found, some pieces of bone had been driven down and buried under the sound part of the skull, and these did not produce any immediate paralysis. It was not until the thirteenth day after the injury that the man's left side became powerless. The pressure exerted by these pieces of bone was upon the anterior lobes. The case was regarded by the attending surgeon, Dr. William Hunt, as a fine illustration of the tolerance of these lobes. Both motion and sensation returned when the bones were removed, but the injury was too profound for the amelioration to continue.

The post-mortem examination proved the truth of the man's story. The calvaria showed twenty-five or more superficial slits and scratches, running parallel with the opening, which were exactly those that the edge of a sharp axe would have made. No murderer or set of murderers would have made such marks as these, and inflicted them all in one direction.

Progress of Medical Science.

Anatomy of Tetanus.—Within the last few years many observers have noted changes in the upper part of the spinal cord, the medulla, and the pons in cases of tetanus. In a case occurring in the New York Hospital, Dr. Amidon had an opportunity of verifying these observations, and he has endeavored to trace the origin of each set of symptoms to some central lesion. The inflamed pia mater surrounding the cord and including the anterior, posterior, and spinal accessory nerve-roots, explained the pain and stiffness in the back of the neck, as is shown by the existence of these symptoms in simple cervical spinal meningitis. On the vascular and cavernous lesions in the whole spinal accessory tract, and the inflamed pia mater about the spinal accessory roots, depended the dysphagia, spasm of the sterno-mastoid and trapezius, and spasm of the glottis, the excited state of the hypoglossal contributing to the production of the dysphagia. The lesions of the lower facial nucleus, considered by some as the centre for the muscles of the mouth, the only facial muscles implicated, gave rise to the "*risus sardonicus*." The lesions found in the pons, by their action on the origin of the fifth pair, are outwardly manifested by the trismus, the constant, and hitherto unexplained symptom of tetanus. The lesions consisted principally of vascular and perivascular dilatations, and changes in the nervous substance itself, varying from simple vascular engorgement to areas of disintegration and the formation of vacuoles; they were found in the tracts occupied by the trigeminus, part of the facial, spinal accessory and hypoglossal, while slight departures from the normal structure appeared in the glosso-pharyngeal and pneumogastric tracts.—*Archives of Medicine*, June, 1879.

Incomplete Retention of Urine.—Dr. Alfred Jean, whose paper on this subject took the Civiale prize in 1878, gives the following *résumé* of his work in the *Gazette des Hopitaux*, May 6, 1879:

Incomplete retention of urine should not be regarded as an exclusively local affection. It may, perhaps, for a long time involve only the organs concerned in the secretion and excretion of urine, but these are the exceptional cases. Sometimes the attention of the patient is directed to the digestive apparatus, disturbances of which may be the initial symptom; but, whatever may be the beginning of the affection, always, or almost always the greater part of the economy becomes involved. The most important vesical lesion is the general hypertrophy of the bladder walls, affecting the muscular elements of the different coats as well as the interstitial tissue. Prostatic obstruction acts principally on the circular and plexiform layers of the vesical walls, giving rise most frequently to horizontal bands, while urethral obstruction affects the external longitudinal layer. These changes are due to inflammatory processes. Subsequently the hypertrophied muscular fibres become constricted and paralyzed by a new formation of connective tissue, and imperfect contractions of the bladder result. The hypertrophic cystitis is followed by a true interstitial cystitis. In the kidneys are found interstitial and suppurative nephritis (surgical kidney). The principal symptoms are frequent and painful micturition, stagnation of urine, incontinence, polyuria, digestive troubles, fever, sometimes continuous, sometimes intermittent. Then follows uræmic poisoning and the cachexia. The prognosis is always very grave, except in cases of stricture.

Cataract following Typhoid Fever. As the etiology of cataract occurring in young adults is involved in considerable obscurity, the following observation of M. Trélat may prove interesting. He operated successfully for double cataract, on a robust peasant girl, twenty-five years of age. The most careful examination revealed none of the causes which are usually considered as originators of this evil. The age of the patient could not account for it; there was no interference with general nutrition; the urine contained neither albumen nor sugar, nor an excess of phosphates. Four years previously a sister of the patient, then about twenty-four years of age, was treated by M. Trélat for the same affection, and a similar want of ascertainable cause led him to examine the two cases together for some common cause. It was then found that in both cases, about three months before the commencing dimness of sight was first noticed, there had been an attack of typhoid fever, and this, M. Trélat thinks, was the curious cause of the cataract, the changes in the lens being analogous to those induced in the muscular tissue.—*Gazette des Hopitaux.*

Chest Mensuration in Phthisis.—The following are the conclusions arrived at by Dr. Porter, after several years' attention to this subject:

1st. In the normal chest the movements of the two sides are practically equal. This is especially true of the infraclavicular region, where the lungs are more nearly symmetrical, and the movements of the chest less affected by irregular muscular development. 2d. The relative expansion of the lungs is interfered with early in phthisis, by the loss of pulmonary elasticity, and the choking of the alveoli and bronchi. 3d. In phthisis, the antero-posterior diameter in the infraclavicular region after forced inspiration is greater on the healthy than on the affected side. Conversely, after a forced expiration, the diameter of the affected side is greater than that of the healthy side. 4th. Age, sex, and habit of life may modify the amount of chest-expansion, but only disease or deformity can make any marked difference in the movement of the two sides. 5th. Disease may be suspected when the difference in the expansion of the two sides is very small. This irregularity cannot be determined with sufficient accuracy by the eye, or even by the tape-measure, but a pair of calipers, with a graduated scale, are necessary.—*St. Louis Medical and Surgical Journal.*

Typhoid Fever.—Dr. Thorne Thorne's report to the Local Government Board on the extensive epidemic of enteric fever, which lately occurred in and near the towns of Caterham and Redhill, is of special interest in its bearings upon the question of the spread of the disease through drinking-water. All the houses invaded, with but few exceptions, were supplied by the Caterham Waterworks Co., and in the exceptional cases it was found that the patients were in the habit of using the company's water. The supply was derived from chalk wells over 500 feet deep, and no possible source of contamination could at first be discovered. In the course of construction of some work, however, the company had employed men in one of the wells, at a depth of 455 feet from the surface, and it was ascertained that one of them, who left work some time in January, was believed to have been ill. After considerable difficulty the man was found, and Dr. Thorne was led to believe that he had been suf-

fering from a mild attack of typhoid fever at the time of his employment in the well. At that time the diarrhœa was very bad, and he was obliged to use the buckets, in which brick, mortar, etc., were lowered, and débris raised, to such an extent as to cause loud complaints from the men stationed at the top of the shaft. He stoutly denied having ever been so pressed as to have been compelled to relieve himself without the use of the bucket, but while above ground he was scarcely able to contain himself while running for the closet, and it is but reasonable to suppose that during his work in the well the water became contaminated. This state of affairs continued from Jan. 5th to Jan. 20th, when he was obliged to take to his bed. During his sickness he had not had medical attendance, owing to his poor circumstances, but the history of the case rendered the dagnosis reasonably certain. He had spent Dec. 25th and 26th at Croyden, where he probably contracted the disease. These dates correspond very accurately with this theory of infection: on Dec. 25th and 26th he was exposed to the poison at Croyden, and on Jan. 5th was taken ill; from Jan. 5th to Jan. 20th the water was poisoned, and from Jan. 19th to Feb. 30th an epidemic appeared in Caterham and Redhill, limited by the supply of the infected water. The village of Warlingham, however, was also supplied by this company, but escaped the epidemic. To explain this it was found that during almost the entire period of poisoning, the company had been obliged to draw a supplemental supply of water from another source, which was pumped into the farther end of the Warlingham main, and it is extremely doubtful whether this village received a drop of the product of the Caterham wells during this period. This is rendered more probable by the fact that, owing to the freezing of the service-pipes, the consumption of the company's water in Warlingham, during this fortnight, was at its minimum The following suggestions, which Dr. Thorne laid before the Conference on National Water-supply, as combining the principal lessons to be learnt from this epidemic, were embodied in a resolution which received the unanimous support of the Conference:

"1. That the view, to the effect that even a comparatively minute quantity of the poison contained in the evacuations of enteric fever patients, may, when subjected to favorable conditions for the development of that poison, lead to the specific infection of very large volumes of water to which it has gained access, is fully borne out.

"2. That a special danger attaches to the mild—or as they have been termed 'perambulatory'—cases of enteric fever, by reason of the intensely poisonous nature of the diarrhœa which characterizes that disease.

"And, having regard to these facts:

"3. That all possible sources of excremental contamination, in the vicinity of water-sources, should be rigidly dealt with.

4. "That care should be taken, in connection with works for the conduction or storage of water, to exclude from employment all persons suffering from any diarrhœal affection."—*The Practitioner*, June.

Lymphatics of Muscles.—M. and Mme. Hoggan, in an article on the lymphatics of muscles, contend that lymphatic *culs-de-sac* without valves are found. There is a peculiar arrangement in the diaphragm, the origins of the culs de-sac being found on the peritoneal surface, while the pleural surface presents true lymphatic vessels, which have passed through the thickness of the muscle.—*Le Progrès Médical*, June 7th.

Passive Motion after Disease of Joints.—The movements of a joint after disease may be of two kinds, artificial or mechanical—made by means of various manœuvres and apparatus, or the natural or physiological movements produced by means of the muscles. The first are admissible when used to rectify malpositions of the limbs, and to treat confirmed anchylosis; but they should be rejected as useless or dangerous when proposed to prevent anchylosis. The second, on the contrary, are of great utility when employed at the proper time, restoring in a remarkable manner mobilization of the joints. Artificial immobilization at one time, natural mobilization at another, are the two principal therapeutic agents in the treatment of diseases of joints; one combats the anatomical lesions, the other restores physiological action. The first can be aided by topical, pharmaceutical, and hygienic agents; the second is favored by electrization of the muscles during the first stage, to prevent their degeneration. The best way to prevent anchylosis is to control inflammation. The only surgical means, strictly speaking, are continuous extension and, in extreme cases, resection.—*M. Verneuil, Le Progrès Médical*, June 7th.

Kava-Kava and its Blennostatic Properties.—In a recent thesis on this subject, Dr. Dupuy states that the Kava plant contains a resin, which seems to constitute its essential therapeutic principle. The following are his conclusions concerning its medicinal properties:

1. Kava-Kava is a sialagogue.

2. Its action on the stomach is that of a bitter tonic; it improves the appetite without producing either diarrhœa or constipation, and perhaps acts as a prophylactic to catarrhal affections of the upper part of the digestive canal. Its taste is agreeable.

3. It exerts a special stimulating effect on the central nervous system; this stimulation differs essentially from alcoholic intoxication, and is called by Dr. Dupuy, *kavaic stimulation.*

4. It is not a sudorific.

5. It increases very markedly the excretion of water in the urine, and may be classed among the most efficacious of diuretics.

6. It does not produce priapism, as has been stated, but, on the contrary, it prevents it.

7. It is endowed with remarkable blennostatic properties, which manifest themselves very promptly. A chronic urethral discharge is first rendered more profuse, and is then promptly cured.

8. It is very efficacious in cases of acute urethritis or vaginitis, calming the inflammatory condition, controlling the pain during micturition, and suppressing the muco-purulent discharge from the urethro-vesical mucous membrane.

These results are probably due to the combined diuretic and blennostatic actions of the drug.

The anti-catarrhal action seems to be due to the resin, and the diuretic effects to a neutral, crystallizable principle called kavaine, and perhaps also to an alkaloid not yet discovered, whose presence would explain more satisfactorily the phenomena excited in the central nervous system, as well as the alterations in the circulation and secretions of the uro-genital apparatus. It possesses over other blennostatic agents, according to Dr. Dupuy, marked advantages, inasmuch as it produces neither diarrhœa nor constipation, is taken with pleasure, increases the appetite, relieves or controls entirely the pain during micturition, changes completely the nature of the discharge, and produces a cure in a very short space of time—ten days.—*La Tribune Médicale*, April 13th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 2, 1879.

THE CAUSES OF DISEASE.

At present it must be confessed that the profession, although apparently satisfied as to the causation of the common diseases, are really much in doubt concerning the general subject. It is fashionable to ascribe to certain influences and conditions certain results. Theoretically, the connection can very readily, if not satisfactorily, be made out. For instance, the fashionable germ theory comes in to help us on almost all occasions; and by a certain habit of thinking into which we have drifted, and by yielding not a little to our imaginations, we mentally construct a superstructure which seems to explain everything. It is certainly very convenient to think we see what we cannot see, especially when we believe it necessary to account for what would otherwise be inexplicable. Plausible theories are always fascinating, and are, as a rule, generally accepted. In reality, however, few are based upon proper experience, thorough study, or indisputable facts. But this is the case the world over. The history of medicine is full of explanations of the causes of disease. Indeed, the profession has seemed to be as much interested in the various questions of etiology as in those of therapeutics. No one need be told that opinions concerning questions have been, and are still destined to change. Judging the future by the past, we are likely to be as much ridiculed in the next century for our blind belief in the power of unseen germs, as our forefathers were for their faith in the influence of spirits, of certain planets, and the like, in inducing certain maladies. It would seem almost like heresy to accepted doctrines to say that the germ theory does not explain everything, and that even the obnoxious sewer-gas may be innocent of the many grave charges which are constantly made against it. Still, we are willing to take the risks which such a position assumes. We are so apt to find, in a case of typhoid fever, that the well-water has been contaminated, that we are willing to look no farther. Even if such an apparent relation between cause and effect cannot be made out, we assume its existence by believing that the recognized cause is present, but that we are unable to discover it. This is very convenient reasoning, but very fallacious nevertheless. Contrariwise, how many cases of typhoid fever are known to occur in which the water has been perfectly pure, and in which all the usual sanitary conditions have been observed?

On the other hand, sewer-gas comes in as the father of almost all diseases. If a case of diphtheria occurs in a house, the sewer-pipe is looked after; if no leakage is discovered, the traps are declared to be imperfect, and the plumber rolls his eyes in thankfulness at being called thus early to save a family from certain destruction. Sewer-gas is pernicious, and too much care cannot be taken to exclude it from our dwellings; but when we consider that such a thing is impossible in a vast majority of instances, we naturally ask the question, why is not diphtheria more prevalent? We must admit that contaminated well-water is bad, that in certain persons, at least, it provokes grave, if not dangerous symptoms, but in the face of numerous facts, we are warranted in saying that such water is not the *sine quâ non* in the study of the etiology of typhoid, of summer diarrhœa, or of cholera. The same may be said for sewer-gas. There is no doubt that it intensifies many diseases and modifies their course, but we are still unwilling to believe that it is an ever-present factor in the estimation of the etiology of diphtheria or any of the numerous diseases which are named in the same category.

The recent investigations which have been made concerning the causation of yellow fever also strongly militate against the germ theory, and many observers are convinced that the disease depends upon a specific poison of animal origin, like small-pox, measles, and scarlatina. We throw out these observations as straws which show the direction of the wind. The indications appear to us to be, that the germ theory is losing ground with advanced professional thinkers, that the necessity for studying the causes of disease anew is being forced upon our teachers, and that the time is not far distant when we shall cease to pin our faith so exclusively upon the power of floating germs, the far-reaching influence of bad well-water, and the omnipotent subtleness of sewer-gas.

THE ACTION OF ANÆSTHETICS.

The third report on the action of anæsthetics to the Scientific Grants Committee of the British Medical Association has been made. The report embraces the results of investigating the condition of the blood-pressure in animals under the influence of chloroform, ethidine, and ether. The committee refer to a report of a committee of the Royal Medical and Chirurgical

Society (see Trans. for 1874, vol. xlvii.) to inquire into the uses and effects of chloroform, in which there is a brief, but very excellent record of the blood-pressure under chloroform and ether. That committee noticed that, on administering chloroform, there was at first a transient rise of the blood-pressure, followed by a gradual, but not a regular fall. It was also noticed that, when chloroform had reduced the force of the heart to the full extent, a rise of the mercury at once followed the respiration of fresh air.

With regard to ether, it was found that the primary rise was greater and more constant than with chloroform, and that the depressing effect was very slight or altogether absent.

By the experiments performed by the committee that has just reported, the above results have been amplified and more exact records obtained. The experiments were made upon rabbits and dogs. They make the general statement that on rabbits ether seemed to have no effect on blood-pressure, while ethidine reduced it to a considerable extent, but not to total extinction, like chloroform. The experiments seem to have been made with great care, and the facts obtained from the observations warranted the committee in reaching the following conclusions:

Ether, when administered to animals, has no appreciable effect in reducing blood-pressure; chloroform and ethidine have a decided effect in that direction.

Chloroform has sometimes an unexpected and apparently capricious effect on the heart's action. The occurrence of these sudden and unlooked-for effects are a source of serious danger, because the blood-pressure is with great rapidity reduced to almost zero, while the pulsations are greatly retarded, or even stopped.

The reduction of blood-pressure by ethidine is not, so far as has been observed, by sudden and unexpected depressions.

Chloroform may cause death by primarily paralyzing either the heart or the respiration. Although not free from danger on the side of the heart and the respiration, ethidine is, in a very high degree, safer than chloroform, inasmuch as the former does not compromise the heart as does the latter.

A legitimate deduction from the facts given is that ether is by far the safest of the three anæsthetics used, and that ethidine is much safer than chloroform, and equally efficient.

A MUSEUM OF HYGIENE.

The Parkes Museum of Hygiene was opened in London on June 28th, with good prospect of becoming a useful and interesting institution. It is designed to be a centre of instruction for the public, and is officered by men of such high reputation in sanitary science as to insure a prospect of its accomplishing the object it proposes. It is intended to include in its collections everything, from literature to machinery, which may be of sanitary value, or incite to sanitary study.

We hope that the success of this institution may lead to the establishment of a similar one with us. There are few cities the population of which has a greater need than ours to be thoroughly acquainted with the ways of preventing disease. A museum which would be a centre for the diffusion of such knowledge, and which, by its existence and the display of its collections, would call attention to the progress that is made in it, could not fail to benefit the city. We are now constantly exposed to infection from without, and the development of disease from within. It appears that we cannot have our streets kept clean, nor can we pull down the wretchedly built tenement-houses that inclose them. It is possible, however, to diffuse more widely the fact of the danger of living beside a garbage-heap, of being fanned by the exhalations from a sewer, and of being personally or domestically unclean. Besides, sanitary science has now reached such maturity in knowledge, such richness in literature, and can show such ingenuity and skill in its mechanical and architectural devices, that it deserves a place where it may record its work and display its successes.

Museums of all kinds seem to find ready support and appreciation among our citizens. We recall the fact that the fossil tracks of the Thick-Toed Birds are elegantly displayed, and not infrequently gazed upon in Central Park, and that the Two-Headed Nightingale warbles to large audiences in the Bowery. There are, in addition, plenty of places where our moral or æsthetic sense may be feelingly appealed to, and we ask, why not create a museum whose prosperity would indicate something more than love of pure science, a fine artistic taste, or a morbid fondness for freaks of Nature?

VOLUNTEER SURGEONS TO HAVANA UNDER AUTHORITY OF THE NATIONAL BOARD OF HEALTH.

Advices from Washington, bearing date July 26, 1879, bring the intelligence that Surgeons Walter K. Schofield and Thomas Hiland, of the U. S. Navy, have volunteered for duty under the National Board of Health on yellow fever service; that their services have been accepted; and that they have been ordered respectively to duty at the Consulates at Matanzas and Havana, Cuba, where they will act as inspectors on vessels leaving for the United States.

The appointment of these officers will materially aid the health officers of all the ports along our coast which receive vessels from those localities at the present time suffering from yellow fever. No time should be lost in getting these volunteers into practical work, and all honor is due to them for undertaking their perilous mission. Their duty is to inspect all vessels sailing for America from the ports at which

they are stationed; and no vessel should be permitted to depart without the surgeon's certificate as to its sanitary condition and the health of the crew and the passengers.

With the aid of such officers, faithful in the discharge of their duties, it is believed by those whose opinions are entitled to respect, that the appearance of a case of yellow fever in an American port may be made a rarity.

Reviews and Notices of Books.

American Health Primers. Hearing, and How to Keep It. By Charles H. Burnett, M.D. Philadelphia: Lindsay & Blakiston. Pp. 152. 1879.

This is the first of a series of Health Primers edited by W. W. Keen, M.D., and to be written by various prominent American physicians. The opening volume is somewhat larger than those of the similar series of English Health Primers, and is equally well printed and illustrated. In order to make a book out of the subject of aural hygiene, allied topics must of course be brought in, and the author has in this case introduced his subject with a very clear exposition of the anatomy and physiology of the ear. As regards the care of the ear, there are many valuable and practical hints. The use of sweet oil, glycerine, and ear-spoons, for cleaning the ear, is cautioned against, and the syringe is recommended as the only proper instrument for this purpose.

The danger to the ear from surf-bathing is mentioned, and that pastime is spoken of in a rather depreciating way.

The book is well and carefully written, and gives promise that the Primer Series thus introduced will compare very favorably with the English one, to which, however, the American issue will be as much a complement as a rival.

Elements of Modern Chemistry. By Adolph Wurtz, Professor of Chemistry in the Faculty of Medicine of Paris, &c., &c. Translated by Wm. H. Greene, M.D., Philadelphia: J. B. Lippincott & Co. 8vo, pp. 687. 1879.

This book is a translation of the fourth French edition, and embraces the latest facts in chemical science, including those of the liquefaction of gases, and the demonstration of the metallic character of hydrogen. There is a great number of text-books on chemistry in the field already, but we know of none that will fill the wants of the student so completely as this. It presents the facts of organic as well as inorganic chemistry, without being as voluminous as Fownes', as condensed as Barker, or as unsystematic as Roscoe. The theoretical part is clearly told, the progress of the exposition being illustrated by experiments. A larger proportionate space has been, very properly, devoted to the metalloids, a knowledge of these, as the author states, being not only indispensable, but also more attractive to beginners.

There is something of a preponderance also of organic chemistry over inorganic, and the array of formulæ will appear somewhat discouraging to the student. Such a prominence, however, is almost a necessity from the immense number of facts now accumulated in regard to the carbon compounds.

The book is excellently printed and fully illustrated.

A Treatise on Gout, Rheumatism, and the Allied Affections. By Peter Hood, M.D. Second edition revised and enlarged, with a chapter on Longevity. Philadelphia: Lindsay & Blakiston. 8vo, pp. 431. 1879.

The second edition of this work is a deserved indorsement of its value and interest. Dr. Hood, its author, writes not as an experimenter or theorist, but as one whom thirty years of practical experience entitle to be considered authority on the subject of which he writes. A large part of the work is devoted to the consideration of the cause and nature of gout, and in this connection the various theories of its pathology are discussed at much length. The vascular turgescence theory of Dr. Gairdner, the chemical theory of Dr. Garrod, and the combustion theory of Dr. Bence Jones, are each of them set forth very clearly, but none are accepted as embracing more than part of the truth. The author indeed, while destroying the systems of others, fails to present any very definite one of his own. He is inclined to lay much stress upon changes in the fibrin and other constituents of the blood, and to deranged function of the liver and nervous system. He seems to be most strongly impressed, however, with the idea that in gout there is a materies morbi in the blood which should be eliminated, and that then a proper nutritive equilibrium should be established in order to prevent future attacks. This idea cannot be considered strikingly new. Indeed, whatever be the refinements in the pathology of gout, the main idea can always be expressed broadly in the humoralistic terms of Sydenham, who says: "The quitting of bodily exercise of a sudden causes the excrementitious part of the juices, which was formerly expelled by means of such exercise, to lie concealed in the vessels and feed the disease."

As regards treatment, colchicum, though admitted to be a specific for the attack, is asserted to be a dangerous remedy, and one to be used with caution, if at all. The author uses, during the attacks, a cholagogue cathartic, and he follows this with alkalies and others. Locally, the use of laudanum and whiskey has pleased him more than any other remedies employed.

The chapters on rheumatism and longevity present the subject well, but furnish us nothing particularly new.

The book on the whole is an excellent one, and the author, in spite of a certain diffuseness of style, has made it interesting throughout.

An Introduction to Pathological and Morbid Anatomy. By T. Henry Green, M.D., Lond.; Fellow of the Royal College of Physicians, Lond.; Physician to Charing-Cross Hospital, etc., etc. Third American, from the fourth revised and enlarged English edition. With one hundred and thirty-two illustrations. Philadelphia: Henry C. Lea. 1878.

This manual of Pathology has passed through three editions, and has been well received by the profession. The fourth revised edition is before us, and in it the general high character of the work is maintained. It contains much new matter, the object of the author being to make it a more complete guide for the student. The arrangement and choice of subjects has made the book very satisfactory; and for the student of morbid anatomy, or the general practitioner who cannot spare the time to study extended treatises, the concise statements which it contains will be found very serviceable. It would be pleasing to give special reference to the various subjects which have been presented, but this seems to be superfluous, for the reason

that the general contents of the book are already well known to students and the working members of the profession. The recent additions are the chapters on tissue changes in pyrexia, on fibromata, and on leukæmia. The pretensions of the book are modest and meritorious.

PHOSPHATES IN NUTRITION, and the Mineral Theory of Consumption and Allied Diseases. By M. F. ANDERSON, L.R.C.P. Ed., etc. London: Baillière, Tindall & Cox. 8vo. pp. 200. 1878.

THIS book is rather a plea than a treatise. The author's theory is that there are two varieties of diseases of nutrition; one is due to *organic* innutrition, and includes starvation when organic food is insufficient or not assimilated, and fatty degeneration when there is deficiency of albuminates. The other variety is due to *inorganic* innutrition, and includes scurvy, rickets, scrofula, consumption, cancer, and leprosy. The supply of the proper organic food will prevent or cure these diseases. The author made many original experiments from which he deduced his theory. His work is evidently carefully done, and his conclusions deserve both study and trial, bearing as they do upon a class of obstinate or incurable diseases.

DIFFERENTIAL DIAGNOSIS, a Manual of the Comparative Semeiology of the more important Diseases. By F. DE HAVILLAND HALL, M.D. Philadelphia: D. G. Brinton. Pp. 205. 1879.

THIS is a book which will delight the student who is "cramming," and will be of much value to the general practitioner. It shows a very wide research among medical authorities for points in differential diagnosis, and the author and American editor have arranged their material with care and judgment. The work is essentially a compilation, but it is a reliable one, and we have found only a few points which are not as given by New York teachers. In addition to the differential diagnosis tables, are notes calling attention to pathognomonic symptoms, if such exist, and giving synopses of clinical history. With the increasing prominence which differential diagnosis is receiving, we predict a success for this manual.

A MANUAL OF PHYSICAL DIAGNOSIS. By FRANCIS DELAFIELD, M.D., and CHARLES F. STILLMAN, M.D. New York: William Wood & Co. Pp. 30. 1878.

THE special merits of this book are that it is simply and clearly written; it is bound interleaved, so that notes and additions may be made; and it has sets of superimposed colored plates which show very perfectly the position and relations of the thoracic and abdominal viscera. The conciseness of the book and the excellence of the plates will recommend it to the student. It does not attempt the theoretical part of physical diagnosis, and it omits some of the minor and less important signs.

ATLAS OF HISTOLOGY. Parts I. and II. By E. KLEIN, M.D., F.R.S., Lecturer on Histology at St. Bartholomew's Medical School, and E. NOBLE SMITH, L.R.C.P., M.R.C.S. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

THIS elegant work, which is now being issued in quarto form, is intended, as the preface indicates, to illustrate the minute anatomy of man and the other vertebrates. The drawings are nearly all by Mr. Smith, though a few are to be found in Klein's former works, such as his "Anatomy of the Lymphatic System." Blood is the subject of the first chapter; then follows Epithelium, Endothelium, and Connective Tissue, with which the second volume is closed. Each chapter is written with care, and generally is succinct and clear. One of the first things we notice is that the authors give in their adhesion to the idea that the protoplasmic substance of the corpuscles consists of a network, at the nodal points of which are enlargements, which are the "granules" seen in the colorless corpuscles, and whose supposed active movements we have called "Brownian." The nucleus is said also to contain a similar network (intra-nuclear) which is continuous with the intra-cellular. Still, it is admitted by the authors that there are other granules within the meshes. The advantage of coloring in a work of this kind is apparent from the way that particles of vermilion are represented in the interior of a corpuscle after they have been "swallowed." Other corpuscles that have gone through this stage are seen to be busy ejecting them. The same intra-cellular and intra-nuclear network is attributed to epithelium, endothelium, and the fixed connective tissue corpuscles. As for membranes, this vexed question is decided in a way that may give comfort to both parties in the conflict over its existence or non-existence. Some epithelial bodies have them, it is said; others do not; it is not a real membrane in any case, but simply a condensation of the otherwise soft material. Cilia are said to be prolongations or continuations of an intra-cellular network whose contraction gives rise to "ciliary movement." When upon the subject of connective tissue, we are not surprised to find that the connective tissue corpuscle is first relegated to the endothelial group, and then made to be synonymous with the endothelial bodies themselves. It renders our conception of the relation between connective tissue and lymphatic spaces a much more simple one, even if it is not wholly complete or satisfactory. There is a lack of clearness about this part of the work that is disappointing, especially as just now we are looking for a final solution of these interdependent subjects. An attempt seems to be made to reconcile the views of some of the older German writers, while no notice is given to what has been done in England or America.

If the book has assumed an advanced position that all modern histologists cannot defend, it has the charm of usually stating its position in round and distinct phrases.

The drawings are excellent, and indeed have not been surpassed in any histological hand-book.

OBSTETRIC PRACTICE IN SIAM.—Medicine, and particularly obstetrics, seem to be in the most primitive condition in this country. Labor cases are generally attended only by ignorant women. If there is an emergency, male physicians are called in, but these are quite as bad as the midwives, and rely chiefly on incantations and absurd compounds for producing relief. To hasten on the uterine contractions the abdomen is pounded and kneaded, or even jumped upon. After delivery a most curious and painful ordeal has to be gone through with. The woman is placed as close as possible to a hot fire, and she is obliged to continue beside it for thirty days, suffering the agonies of a scorching heat and being only allowed hot water to drink. The custom is very firmly rooted, and no amount of persuasion will make the women do away with it. It has a certain scientific basis, from the Siamese standpoint, for it is believed that after parturition there is a diminution of the fire element in the system which causes the evolution of all sorts of bad humors.—*Archives of Medicine.*

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 14, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

(Continued from p. 92.)

ADENO CYSTIC TUMOR OF THE OVARY KIDNEY WITH DOUBLE URETER.

Dr. Lee also presented a specimen of adeno-cystic tumor of the ovary, together with the portion of the uterus to which it was attached, and one of the kidneys with a double ureter, from the same patient.

Mrs. H., æt. 30, married, and had had one child stillborn five years ago. Was admitted to Woman's Hospital April 12, 1879. Menstruation regular since the time of her confinement, which occurred five years ago. After her confinement she noticed that her abdomen did not decrease in size, and consulted Dr. Budd, who told her she had an abdominal tumor. She had no pain, and her general health continued fair until three months ago, when she fell on her side, and had at once all the symptoms of acute peritonitis. That slowly subsided and left the abdomen altered in shape, although as large as ever. When admitted to hospital the abdomen measured 52 inches in circumference, and evidently contained a large, solid tumor, floating freely in fluid. Its character and origin were doubtful, but it was thought by Dr. Thomas to be an adenoma of the ovary. The tumor itself was not tapped, but the abdomen was, and the fluid obtained was doubtful in character. For ten days after admission to the hospital she did fairly well, when she suddenly had a succession of chills; the temperature ran up to 104° F., the pulse to 130, and, though little abdominal pain existed, all her symptoms pointed to the existence of septic peritonitis. The question of operation now became one to save life, and was done as a last resource. It was performed April 28th.

There were no anterior adhesions. When the base of the tumor was obtained it was found that it included the entire uterus. The pedicle, consequently, consisted partly of the uterus as well as of the broad ligament. An effort was made to separate the tumor from the uterus, but separation was found to be impossible, and it became necessary to include it with the tumor. The hemorrhage was very slight, amounting to no more probably than three ounces. The woman died from what seemed to be purely secondary surgical shock.

April 29, 1879.—Autopsy fifteen hours after death:

External Appearances: Body emaciated. Incision in linea alba 20 ctms. in length, and extending nearly to symphysis pubis.

Heart: Decolorized post-mortem clot in right ventricle.

Pleura: Extensive old pleuritic adhesions on right side. Lungs normal.

Spleen normal.

Kidneys: Left kidney had two ureters, which have a common opening into the bladder.

Liver normal.

Peritoneum: Acute general peritonitis. Thick fibrinous deposits on visceral and parietal peritoneum, firmly agglutinating the intestines. A glass drainage-tube extended from the external incision into the vesico-uterine pouch. There was a small quantity of brownish fluid in the peritoneal cavity. No blood.

Uterus: The uterine cavity measures from the fundus to the external os, 9 ctms.; from fundus to os internum, 6 ctms. Thickness of its wall in middle of body, 1½ ctms. Its right cornu was included by a ligature, which also embraced the uterine extremity of the right Fallopian tube and adjacent portions of the broad ligament. The uterus itself was essentially normal. A number of ligatures included the stump formed by the structures above mentioned. The circumference of the stump at its base was 13 ctms. The stump had been drawn out of the external incision and held there by a long needle (Peaslee's needle).

Ovaries: There were no traces of the right ovary. The left ovary was somewhat enlarged, about twice the normal size, its external surface peculiarly convoluted, resembling the convolutions of a child's brain. Its cut surface presented several small cysts.

Rectum, bladder, and vagina normal.

Tumor: The tumor removed had a smooth surface, and contained a large number of cysts, with a large amount of solid tissue. The largest cyst was about the size of a child's head, and presented on its external surface an opening about 3 ctms. in diameter, and with lacerated edges, as if it might have ruptured spontaneously. Some of the cysts contained a brownish, limpid fluid, hemorrhagic; others a transparent thin fluid, and many of the smaller ones a yellow, viscid fluid, such as was frequently obtained from ovarian cysts. Brownish masses, with glistening specks, were contained free in some of the cysts. These were found, under the microscope, to consist chiefly of free fat and cholesterine crystals. In the fluid obtained from the cysts the so-called ovarian corpuscles were present. Large granular bodies, inflammatory corpuscles of Gluge, were also present. The measurements of the tumor were, laterally, 37 ctms.; vertically, 25 ctms.; antero-posterior, 15 ctms. On the lower surface of the tumor was attached the Fallopian tube, with its fimbriated extremity, through which a probe could be passed along the tube. The tube had been divided close to its uterine termination. The Fallopian tube on the tumor had the remarkable length of 31 ctms. The tumor was therefore a multilocular adenoma of the right ovary.

Dr. Lee further remarked that such tumors could be distinguished from solid tumors: *first*, by the entire freedom of the uterus when the tumor was moved; and *second*, by tentative gastrotomy. The diagnosis, by the presence or absence of a certain form of cell, was unreliable.

DR. PUTNAM-JACOBI remarked that the condition of the left kidney in Dr. Lee's first specimen seemed to indicate destruction of renal tissue, by reason of pyelitis, produced by a direct extension of inflammation through the ureter from the bladder.

DR. LEE remarked that he used the term Bright's disease because examination of the urine showed the presence of casts, and the history seemed clear that the diagnosis of Bright's disease before she came under his observation was correct.

DR. BRIDDON remarked that the fatty condition of the right kidney indicated the existence of chronic Bright's disease.

DR. KEYES asked if relief of vesical tenesmus was complete during the time the patient wore the glass tube.

DR. LEE replied that relief was complete up to the time of death.

DR. HOWE asked why dilatation of the neck of the bladder would not have answered as well as the cutting operation for the relief of the cystitis. He thought that dilatation in a patient having Bright's disease

gave a better chance of recovery than the use of the knife.

Dr. Lee remarked that his experience did not enable him to answer the question. In the few cases, however, in which he had seen forcible or gradual dilatation of the neck of the bladder performed for the relief of cystitis in women, the success of the operation had been only temporary.

Dr. Howe regarded the cutting operation as more dangerous than dilatation.

Dr. Keyes asked if any deaths had occurred after cystotomy in the female.

Dr. Howe replied that he had had no experience in cystotomy in the female.

Dr. Briddon remarked that he regarded the cutting operation as the simplest and the safest. In a patient whom he saw, and who had both cystitis and pyelitis, the cutting operation was performed; not only without detriment, but with positive benefit.

Dr. Howe remarked that an essential difference between the cutting operation and dilatation was: in one instance, the risk attending exposure of a fresh and suppurating surface to urine must be taken; while in the other, no such risk obtained.

THE LARYNX OF A LEPER.

Dr. Louis Elsberg presented the larynx of a leper, and directed special attention to the change seen upon the tongue, upon the epiglottis, upon the arytenoid cartilages, and upon the aryteno-epiglottic fold.

Abraham Brown, æt. 45, born in the United States, widower, and a bricklayer, was admitted into Charity Hospital, July 5, 1878. His family history was excellent. His previous history was, that about twelve years ago he went to Cuba, and was in Santiago three years. While in Cuba he was attacked with yellow fever. He never saw a case of leprosy while there. After leaving Santiago he returned to New York City, where he has been ever since. He noticed nothing about himself until February, 1878. Formication on the forehead was the first symptom noticed. It was accompanied by a feeling of malaise and general languor, being drowsy, and having frequent chills, but did not interfere with his work. In April, 1878, an eruption, in the shape of small tubers, appeared all over the face. Soon after this his eyebrows and lashes fell out. He had a feeling of numbness in his fingers; noticed that he was losing sensation in tips of fingers; could not appreciate the shape of objects as formerly. This was followed by the same condition on legs. Had no alopecia but that above mentioned; his eyesight has been failing him. Has had no venereal trouble, save gonorrhœa. Has had no marked general systemic disturbance since onset of the disease.

Present condition.—April 1, 1879. The patient has a very savage appearance. The integument very much discolored, being of a leaden hue. Has several tubers on face and forehead; on left cheek there are several tubers clustered together, and the remains of an old ulceration. Nose and lips are rough from the infiltration beneath the skin. Both lobules of the ears hang down like immense earrings. Body has an eruption on it, being quite dark in color. Arms and legs are covered with fine scales. Hands and feet have been very œdematous, but at present are not much swollen. Both hands are very tender, and present the following appearances: skin dry and thickened; show remains of ulceration of finger-nails. The first two fingers of the left hand show a hyper-extension. The nails of little and ring-finger have undergone ulceration, and are almost gone. The joints of the finger are being rapidly absorbed, so much so that the last phalanx of the little overrides the second. Has general glandular enlargement. Ulnar nerves very thick and rigid. There is very little pain in them, and are not very tender. Right hand presents very much same appearance as left. Nails of the toes have undergone ulceration. Nasal passages affected; breath very offensive; voice very much impaired, and so husky that it is difficult to understand him. Tongue cracked, bleeds easily; saliva dribbles from his mouth. Gums are red and swollen. Following is a laryngoscopical examination, made by Dr. Elsberg last autumn:

"Palato-glossal and palato-pharyngeal folds have been ulcerated through and become adherent in several places. Inner sides of cheek and posterior wall of pharynx are dotted with small papillary excrescences. One large ulcer on hard palate. Patient has ozœnic catarrh, and although pituitary membrane seems to be injected, no tuberosities are present. Epiglottis tumefied. Its free edge thick and irregular, with angular lateral boundaries; hangs over larynx; ary-epiglottic folds congested and uneven, covered with a few large and small tuberosities. The lumps partially hide and give to the arytenoid cartilages an ill-defined and shapeless appearance. Posterior halves of vocal cords masked beneath the growth. Two large lumps are seen—one anterior, the other posterior to the left arytenoid. On its inner side vocal cords are of a dirty yellow color. In interarytenoid space one large tubercle stands out prominent into larynx."

Patient complained very little. His general condition was good up to April 1, 1879. Complained then of a general soreness all over body. Has tenderness of lips and gums. Appetite fair. Emaciated. A temporizing prescription was ordered by the attending physician.

April 11th.—Ulcerations improving, and showing a tendency to heal, but no marked improvement over previous condition.

April 15th.—Feeling good, but wished a change of diet.

April 18th, P.M.—Complained to orderly of a feeling of oppression over chest.

April 19th, 8 A.M.—Was called down to see patient; said he felt badly, but could give no definite symptom. Slept very little during the night.

April 19th, 10 A.M.—Patient died suddenly. Heart and lungs not examined.

Autopsy made by Dr. Maxwell, Curator to the Hospital, twenty-eight and a half hours after death: Body of medium size, emaciated, rigor mortis present. (For external appearance, see description above.) Left leg and right arm atrophied.

Head: *Calvarium*, *dura*, *sinus* normal. There is only one vertebral artery (left). Pia mater and brain substance pale, otherwise normal.

Spinal cord and roots of spinal nerves: The latter on the right side, corresponding with the cervical and lumbar enlargements, show an increase in size equal to twice that of the roots on the opposite side. The nerves have almost completely disappeared, and the nerve-sheath is distended with a firm, yellowish, shining connective tissue. The nerves on the opposite side corresponding, show in some instances a slight degree of the same change. The lumbar nerves show nothing abnormal.

Cord: There is slight adhesion between the opposed surfaces of the arachnoid in the upper cervical region—posterior surface. The pia mater and cord substance anæmic. In the cervical and lumbar regions the lateral columns are firmer and grayer than normal (lateral sclerosis—localized). This was not

noticed in the dorsal region; the cauda equina shows nothing abnormal.

Thorax: Slight pleuritic adhesion on left side posteriorly.

Lungs: Right lower lobe, about two-thirds its surface and the whole of the middle lobe covered with a thin layer of fibrinous exudation. Base of its lower lobe shows an infarction about two inches in diameter, in yellow stage. The branches of the pulmonary artery on both sides, except the smaller branches, show at their points of bifurcation firm thrombi, yellowish in color, and quite intimately attached to the coats of the vessel. The largest of these thrombi are centrally softened. The only result of this thrombosis, with above exception, is collapse of the lungs. Surface of lungs pale. A small amount of vesicular emphysema in upper portions. Muco-pus in bronchi.

Tongue and larynx: Upper surface of tongue shows a row of tubers on either side of the median line spreading out at the base, and at this portion a few are superficially eroded. The palato-glossal folds and the pharynx show a few nodules.

Epiglottis: Its tip for half an inch is thickened to extent of one-fourth inch; presents at its very tip an oval ulceration. On its anterior face a white, and at one point a puckered, cicatrix. Whole tip of epiglottis thickened, and the thickening seems to be in the mucous membrane, the latter sliding freely over the underlying cartilage. In median line is infiltration of the mucous membrane; at base of epiglottis, more yellow than normal, and in centre of this infiltration a superficial erosion. Orifice of glottis presents an oval, puckered appearance. The ary-epiglottic folds are irregularly thickened at their posterior attachments. The mucous membrane covering the vocal bands presents an almost uniform nodular thickening. The ventricular fold on the right side and the left vocal band present this condition most markedly. Below this, the mucous membrane of the larynx, trachea, and bronchi shows nothing worthy of note.

Heart: Pericardium normal. Weight of heart eleven ounces. Right side contained a post-mortem clot. The walls of about normal thickness, yellowish brown color, the trabeculæ flattened. Valves: slight thickening of free margins of mitral and tricuspid, and a few scattered patches at the base of the aortic and on the anterior leaflet of the mitral valves. The aorta is thickened, its intima corrugated from chronic endarteritis. This condition extends most markedly throughout the thoracic portion, with a few calcareous patches. Blood thin, and has cherry-juice appearance.

Abdomen: Liver measures eleven inches in length, seven inches broad, and three inches thick. Weight fifty-three ounces. Cirrhotic. No amyloid reaction.

Spleen: Five inches in length, four inches in breadth, and one inch and a half thick. Weight nine ounces. No amyloid reaction. Shows in its upper border two old infarctions. Parenchyma pale, firm.

Kidneys: Chronic diffuse nephritis. Measure three and seven-eighth inches in length, two inches in breadth, and one and three-eighths inches in thickness. Weight four ounces. Somewhat diminished in size, capsules adherent, and when stripped leave a granular surface. An old infarction noticed on surface of right kidney. On section find cortical portion markedly atrophied, pyramids deformed. Columns of tubules cannot be traced above the bases of pyramids. Cortex has reddish-yellow color.

Pancreas and stomach normal.

Intestines: Mucous membrane shows patches of congestion.

Lymphatic glands: Mesenteric and retro-peritoneal glands normal. Deep inguinal glands enlarged and pigmented. Subcutaneous fat tissue, deep yellow color, and softened.

Muscles of body have dark red color, and the affected portions atrophied.

Nerves: Right ulnar above the elbow shows a fusiform enlargement two inches in length, and of almost stony hardness. Below this point the nerve is atrophied, and of yellowish color. The left ulnar shows only a slight fusiform enlargement at the elbow.

Left popliteal shows enlargement and hardness; the peroneal and sciatic are atrophied. The atrophied nerves are flattened, of dirty-yellow color, the nerve appearing to be more firmly attached to its sheath than normal. The nerve-fibres very much smaller than normal, of yellowish color, and seem to be bound together by a firm connective substance. The enlarged and firm portions of the nerves do not show so much atrophy of the nerve bundles, and the latter project beyond the level of the anterior surface, and have a gelatinous appearance.

The lumbar and sacral plexuses within the body show nothing abnormal.

CHRONIC VALVULAR DISEASE AT THE AORTIC ORIFICE, WITH FATTY AND WAXY KIDNEYS; DEATH FROM ACUTE CATARRHAL PNEUMONIA.

Dr. Beverley Robinson presented the heart, removed from a patient, aged 34 years, teamster, who died under his care at Charity Hospital, April 22, 1879. The patient had had syphilis several years before his death, and had suffered from intemperate habits.

The interest of the specimen related mainly to the condition of the leaflets of the aortic valve. The posterior and middle leaflet were fused together and at their point of fusion a hard, rough, and prominent calcareous mass could be seen and felt. The mitral valve and orifice were tolerably free from disease; a little thickening of the anterior leaflet and the attached cordæ tendinæ being the sole morbid lesions observed. At the post-mortem the walls of the heart were firm and of dark red color. Its weight was 14 ounces. There was evident hypertrophous dilatation affecting both sides. By hydrostatic test there was free regurgitation at the aortic orifice. Both kidneys presented distinct evidences of advanced fatty and amyloid disease.

As a clinical fact, it should be noted that the murmur heard during life was more intense with the first sound and near the apex than elsewhere.

CHRONIC LOCALIZED PLEURISY (R); CHRONIC INTERSTITIAL PNEUMONIA (RIGHT UPPER LOBE); ACUTE CATARRHAL PNEUMONIA (RIGHT MIDDLE AND LOWER LOBES); EMPHYSEMA, ACUTE OEDEMA AND CONGESTION (LEFT LUNG); PARTIAL CARDIAC HYPERTROPHY; CHRONIC DIFFUSE NEPHRITIS.

Dr. Robinson also presented the right lung, removed post-mortem, from the body of G. W., aged 40 years, pianist, who died April 29, 1879.

Upon admission, April 24th, to the hospital, a few days before death, the patient was suffering from cough, dyspnœa, and abundant yellow expectoration. How long he had had these symptoms could not be determined, as he spoke an unintelligible German patois. He had not apparently lost much flesh and his strength was sufficient to permit him to walk freely about the ward. His appetite was fair; his legs œdematous; micturition frequent; upon examination no albumen was found in urine; the quantity passed was about normal. Physical examination revealed signs

of consolidation at apex of right lung, and those of emphysema at apex of left lung. Posteriorly and on the right side pneumonia was the diagnosis made by the house-physician.

On the day of patient's death, and only nine hours previous, he was suddenly attacked by a marked chill, followed by increased fever, notable pain in the chest, and excessive difficulty of breathing.

Pulse 134; respirations 47; Temp. 104¼° Fahr.

About three hours after the commencement of these accidents he saw the patient, and detected, as he believed, acute consolidation at the left apex, and at right apex and below this seat on either side in front, the signs of an older inflammatory lesion. He inferred that the actual aggravation of symptoms was caused by the extension of the acute pneumonic process.

The patient's condition was obviously so critical that he did not consider it advisable to raise him and make an examination of his lungs posteriorly.

The autopsy, made fifteen hours after death by Dr. E. A. Maxwell, showed the following:

Pleural cavities: Right shows bands of adhesion extending to costal layer from boundary line of upper and middle lobes; above this the cavity is filled with the fluid of chronic pleurisy. Below this portion both layers of the pleura show considerable thickening. Left pleural cavity normal.

Lungs: Right upper lobe consolidated by chronic interstitial pneumonia; lower lobe and lower portion of middle lobe consolidated by acute catarrhal pneumonia in gray stage. The left lung shows inflation overlapping the anterior mediastinum. There is general emphysema, congestion, and œdema. Both lungs show intense bronchitis.

"From the foregoing history and the morbid lesions revealed at the autopsy I wish to draw an analogy between this case of ambulatory pneumonic consolidation with chronic pleurisy of the right lung, followed by very rapid and intense generalized œdema and congestion of the entire *left* lung, and resulting in a speedy death, and those instances of sudden œdema of a relatively healthy lung, which occasion death after the operation of thoracentesis for large fluid effusions of the pleura.

"I believe the chill in the present case, which occurred the same day the patient died, was due to cold, which likewise occasioned the œdema in the left lung. After a like impression of cold we may have cases of rapidly fatal œdema in pleuritic patients from whom fluid has been aspirated. I do not believe, however, that the aspiration itself, as it has been stated, should be made accountable for that immediately dangerous complication."

FIBROUS PHTHISIS—LARYNGEAL PHTHISIS (SO-CALLED)—WAXY LIVER, SPLEEN, STOMACH, AND INTESTINES—OLD ULCERATIONS OF LARGE AND SMALL INTESTINES.

Dr. Robinson also presented the larynx removed from a patient who had come under his care the day he died, for the purpose of having tracheotomy performed as a prophylactic measure of relief against excessive dysphagia and urgent dyspnœa. The lungs were already much altered by fibrous phthisis, and the apices were riddled with large and small cavities. The prospect of an ultimate cure was therefore almost hopeless. A laryngoscopic examination was not made, and, owing to the advanced condition of the intra-laryngeal disease, as it is now visible, it may be doubted whether in this instance tracheotomy would have availed much, even so far as the mere relief of symptoms is concerned. As a general fact, however, it is known tracheotomy does relieve very markedly advanced conditions of intra-laryngeal disease, and should therefore be performed when practicable, or unless there be some very formal contraindication. The condition of the larynx was as follows, according to post-mortem record made by Dr. J. F. Holmes:

"Lower half of laryngeal face of epiglottis is studded with nodular elevations (enlarged follicles). Mucous membrane of larynx quite pale; vocal cords appear to be considerably thickened and swollen, more especially the left; ventricular bands are also much hypertrophied. No evidences of ulceration in the larynx." To this description I would add that the epiglottis, ary-epiglottic folds, and arytenoid cartilages are all very much thickened and infiltrated. In fact, the entire larynx presents a typical case of so-called laryngeal phthisis. Are tubercles present? I do not believe they are.

This is the third case of similar nature shown by me to the members of the Society, and I am desirous that it should be examined carefully by the Microscopical Committee, and a report of what they shall find made at a later meeting.

Dr. Putnam-Jacobi asked Dr. Robinson if he held the view that pulmonary œdema occurred after death?

Dr. Robinson replied that he had entertained that belief.

Dr. Putnam-Jacobi remarked that she had always regarded œdema as a vital condition.

Dr. Lee remarked that the clinical point of interest in Dr. Robinson's case was the fact that extensive lung consolidation was not incompatible with considerable activity and vitality, and at the same time sudden death might occur in just such cases.

Dr. Robinson remarked that he presented the specimen chiefly because of its interest in one point of view; it enabled us to draw an analogy between the cases of sudden death after thoracentesis from pleurisy, and sudden death from œdema of the healthy lung in a case of pneumonia. He attributed the sudden development of the œdema to taking cold.

Dr. Lee asked Dr. Robinson whether he considered it worth while to perform tracheotomy in a recognized case of laryngeal phthisis?

Dr. Robinson believed that all the symptoms could be relieved by the operation, and that it could be performed with a possible hope of effecting a cure. His conviction was that, in a majority of cases of so-called laryngeal phthisis, there were no tubercles in the larynx. He thought the profession should look upon the operation of tracheotomy as one almost demanded.

Dr. Elsberg remarked that, so far as he knew, he was the first to suggest and perform tracheotomy in laryngeal phthisis. He did not agree with Dr. Robinson with reference to the extreme rarity of tubercle in the larynx, but he was satisfied that tubercle was not present so frequently as some were disposed to think.

Scarification of the upper part of an enlarged and phthisical larynx, with the view of reducing its size, was of no service whatever.

A DIVERTICULUM.

Dr. J. Lewis Smith presented specimens, accompanied by the following histories and remarks:

The first was a diverticulum from the ileum. It was removed from the body of an infant that died in convulsions, at the age of five months. The convulsions and death seemed to be due entirely to a severe broncho-pneumonia. There were no appreciable symptoms referable to the diverticulum. The point at which the diverticulum was attached to the ileum was just one foot from the ileo-cæcal valve, and

to that part of the intestine which was directly opposite to the attachment of the mesentery. At its attachment it had nearly the diameter of the adjacent gut. It gradually tapered from its base to its distal extremity, so that its shape was that of a symmetrical cone, which pointed forward when the abdominal walls were opened in the dissection. The entire length of the diverticulum when fresh was two and three-fourths inches. It was filled with gas, except the terminal half inch or the point, which was solid, and of a fleshy color and appearance; that portion had a cartilaginous feel, and communicated the sensation of a gritty substance when touched with the scalpel.

HERNIA OF THE CÆCUM.

The second specimen was removed from the body of a male infant, who died at the age of eight months. He was well nourished, and in good health till Friday, May 9th, when he became very fretful, as if in pain, and during the day the nurse observed unusual prominence in the right inguinal region. One healthy stool occurred on the 9th. On the 10th he continued fretful, had no stool, and several times vomited a greenish substance. A dose of castor-oil was administered, which was, however, vomited. The inguinal tumor continued as before, unless somewhat more prominent. On the 11th the condition was the same, except increasing weakness. Lime-water was administered by the attendants to relieve the frequent vomiting, but with no effect.

On the 12th he was rapidly sinking, and the nurse, now fully alarmed, brought him in the latter part of the day to the Dispensary of the New York Foundling Asylum, where Dr. Wilson, who was in attendance, at once recognized the nature of the malady, and sent him into the institution. Dr. Chadbourne, the resident physician, immediately examined the case, and made the following record: "Infant in collapse; limbs cold, face cool, features pinched, and eyes sunken; the tumor extends from the right inguinal region to the lower part of the scrotum. It has a dusky color, from the congested vessels underneath the skin; pulse feeble and quick; rectal temperature, 104°; respiration, 80; the vomiting has ceased, and there is apparently but little suffering in consequence of the collapsed state." At 8 P.M., at the time of my visit at the institution, the patient was lying quietly on his back, the extremities cold, the pulse with difficulty counted on account of its rapidity and feebleness, but numbering about 180; rectal temperature, 105½°, respiration, 80; the features pinched, presenting the moribund appearance. The tumor could be handled without apparent pain on account of the low vitality. Having elevated the hips of the infant, an attempt to reduce the hernia by taxis was made. The testicle could be felt in the bottom of the scrotum, and the displaced intestine could be made to recede from it to the distance of perhaps one and a half inches; but manipulation and pressure to the extent which seemed prudent, although it diminished the apparent size of the tumor by crowding it against the ring, did not seem to produce any effect on the constriction. The displaced intestine could be felt within its scrotal covering, soft, flabby, and without contents. It was deemed best, in the prostrated state of the patient, to apply cold to the tumor, and to stimulate actively by brandy during the night; but three hours later, at 12 P.M., clonic convulsions occurred, which terminated fatally at 5 A.M. During the night the patient had five stools.

At the post-mortem examination, made a few hours after death, the small intestines were found distended chiefly with gas, and there was a small amount of serum in the abdominal cavity. The protruded portion of the intestine was the entire cæcum, and nothing else. The attached end of the appendix vermiformis was drawn within or against the ring, the body of this *cul-de-sac* lying above in the abdominal cavity. The ileo-cæcal valve was also drawn down, so as to lie against or perhaps just within the ring. The cæcum had a dusky red appearance in consequence of the congestion, and one portion of the size of a ten-cent piece was dark, as if from commencing gangrene. Subsequent examination, however, showed that there was no gangrene, nor was any offensive odor noticed. There was no fæcal substance or gas in the cæcum. The points of interest were the following:

1st. This was obviously a case of acquired hernia. The fact that no protrusion occurred till the age of eight months certainly forbade our regarding the hernia as congenital. In hernia, which we may properly regard as congenital, the escape of the intestine through the ring occurs in the first weeks of life; and from cases of this kind, which have been observed, even those much neglected, it appears that strangulation is rare. For, if the aperture is so patulous as to allow protrusion at this early age, when there is little expulsive effort, and the position is usually recumbent, the return of the intestine by taxis is also easy. Dr. Smith had not met a case, which seemed to be congenital, which he could not reduce. On the other hand, acquired hernia in the infant, like that in the adult, is liable to strangulation, and it therefore requires prompt treatment. The cause of the unsuccessful result of taxis in the above case was apparent at the autopsy. The large size of the cæcum, its feebler peristaltic and vermicular movement, as compared with that of the small intestine, which movement greatly aids in the reduction when the hips are elevated, and the impaction of the end of the appendix vermiformis, and perhaps also of the ileo-cæcal valve in the aperture, through which the protrusion occurred, afforded sufficient explanation of the persistence of the rupture and its strangulation.

2d. From the few post-mortem examinations which he had made in cases of infantile hernia, which had been chiefly congenital, death having occurred from other causes, Dr. Smith believes that the large intestine is much more frequently the part which protrudes in infantile than in adult cases.

3d. Constipation was not so prominent a symptom as it usually is in strangulated hernia. Total constipation was present only during two days, and on the last day after the manipulation there were five stools. This was explained by the fact that the ileum was free, and the ileo-cæcal valve was barely engaged. The five stools in the last hours of life might, it was true, have occurred from fæcal matter which was already in the colon, or the ileo-cæcal orifice might have been raised sufficiently above the ring by the taxis to allow fæcal matter to pass. We could see by this case how strangulation and gangrene might occur in hernia, without obstructing the passage of fæcal matter, provided that only the cæcum is engaged.

Dr. Smith also presented a specimen of *spina bifida* from an infant that died at the age of three weeks, which was referred to the Microscopical Committee. He also presented

A LUNG TAKEN FROM AN INFANT THAT DIED OF EMPYEMA.

Dr. Smith remarked it was a common belief that pleurisy with effusion, especially empyema, was a rare disease in young children. He had regarded it as quite the opposite; and as evidence of the correctness

of that view, he mentioned the fact that within five weeks he had seen three cases in which the diagnosis was verified by post-mortem examination. Within the same time he also had seen three cases in which the exudation was sero-fibrinous. At the present time, while scarlet fever was prevailing epidemically, quite a proportion of the children affected by that disease were attacked by pleurisy, and it was very apt to be suppurative in character.

Dr. Briddon thought Dr. Smith's statement incorrect with reference to the frequency of protrusion of the cæcum in hernia occurring in children. It was generally the small intestine that was involved, and the occurrence of that form of hernia was also rare.

Dr. Smith remarked that he wished to say, that if comparison were made between inguinal hernia in the infant and in the adult, the large intestine constitutes the contents of the hernial sac in a larger proportion of cases in the infant than in the adult.

Dr. Elsberg asked Dr. Smith whether in such cases he considered attempts at taxis as effective as an operation.

Dr. Smith replied that in the present instance no advantage would have been gained by an operation, for the child was nearly moribund when it first entered the asylum. He hesitated to advise an operation, as he would to advise tracheotomy for a child cold, and nearly pulseless with membranous or diphtheritic croup. Besides, it must be confessed that in this case the return of the stools gave rise to a doubt as to the exact anatomical state.

Dr. Elsberg thought that under such circumstances an operation certainly could do no harm.

Dr. Briddon remarked that he was not able to conceive of any condition that contraindicated an operation in a case of strangulated hernia.

The Society then went into Executive Session.

Correspondence.

A REMARKABLE CASE OF SEMI-CONSCIOUS EPILEPTIC AUTOMATISM.

By C. H. HUGHES, M.D.,

FORMER SUPERINTENDENT AND PHYSICIAN OF THE ST. LOUIS, MO., STATE LUNATIC ASYLUM, ETC.

To the Editor of The Medical Record.

Dear Sir:—The season is too hot in this latitude to justify a lengthy discussion of the question as to whether *unconsciousness* is an absolute essential of epilepsia and epileptoid.

But a recent very able lecture in your columns, by that most able lecturer and writer, Allan McLane Hamilton, asserts that "epilepsy is a malady which in all cases implies a recurring loss of consciousness," etc.; and the writer does not "believe that any act of violence which has been done while the individual is said to be epileptic or suffering from an attack of epileptic mania, can be excused unless there is at some time *absolute unconsciousness.*"

As this is the sunstroke season, you will, I am sure, and so will Dr. Hamilton, pardon me for treating the subject with such brevity as will soon be apparent.

A large experience with epilepsia, and especially in the observation of epileptiform disease, has forced me to abandon, along with Mr. Hughlings Jackson, the criterion of unconsciousness as an absolute essential of the *status epilepticus.*

For the typical *grand mal*, unconsciousness is an unvarying characteristic; but in *le petit mal*, while a brief period of unconsciousness is almost the universal rule, it must be conceded that there do sometimes occur cases clearly attributable to this disease when an element of real consciousness, usually, however, a sort of dreamy consciousness, such as one sometimes feel just before waking exists.

Dr. Hughlings Jackson, in the fifth volume of the "West Riding Asylum Reports," 1875, in an interesting article "on the temporary mental disorders after epileptic paroxysms," sheds a flood of light upon the medico-legal aspects of epileptic states. Momentary lapses of memory—and acts of cerebral automatism after epileptic seizures are supplementary of them, as is often seen among the insane—are indeed very common.

I have seen some of these automatic acts come on as the precursor of the subsequent undoubted *grand mal.*

A medical friend of this city consulted me in regard to a gentleman who was first led to seek his advice, on finding that he had, without knowing it, while standing at his desk (he was the bookkeeper of his firm), filled up and signed his firm's note, tearing the note from the note-book and filling in the stub unconsciously, without attracting any one's attention by any convulsive or other singular movement.

This was unconscious cerebration, due to incipient epileptic disease; the case having left the city, and since developed into one of well-marked epilepsia.

The following case, however, is one of conscious automatic cerebration, due to undoubted epilepsia, and is the most remarkable case on record:

The case was referred by Dr. Rumbold, the editor of the St. Louis *Medical and Surgical Journal*, to Dr. Chas. W. Stevens and myself, and a careful inquiry elicited the following facts, which possess a medico-legal significance too obvious to require comment. I conclude this hasty prelude to the case with the remark that an extensive observation of epileptic and epileptoid states have gradually forced upon me the conviction that their mental possibilities are infinite—their vagaries being such as no man can yet number. We cannot be too cautious before courts in our estimate of the volitional element in the acts of epileptics and epileptoids. If a man may reveal his disease in so simple a thing as tearing up or eating a prescription blank just handed him by his physician, or wiping his nose on a piece of paper, or spitting on the floor when not accustomed to doing so, he may pull a trigger or cut a throat, and be, seemingly, conscious, or, as in the following case, do as he has often been wont to do, with the exception of not realizing that what he is doing, while it is not unnatural, is out of time and place.

In the fall of 1867 Dr. N. got up after midnight, dressed himself, walked a quarter of a mile to a certain place on his farm to look at his "stock." After he had been there a while, seemingly to him a very short time, he awoke to a realization of the fact that it was not the proper time for him to be at such a place; although conscious of every step he took to get there. He went back to his house, undressed himself, and again retired to bed.

He was conscious of all that he did from the time of rising to dress himself, but did not realize the incongruity of his position, and that he ought then to have been in bed.

In 1875 he again did about the same thing, getting up and dressing himself, putting on his boots, clothing, cravat, collar, and hat, and taking his watch from under his pillow and looking at the time, every

act being remembered in the order in which it was done. He this time walked out into the street.

When he fully came to a realization of the fact that he ought to have been in bed, he was standing by a fence looking over into a vacant lot. He knew he had come to the lot, but not that he ought not to have been there at that hour of the night, until after a time it occurred to his mind that he ought to have remained in bed, whither he immediately returned.

The patient had had many real epileptic seizures preceding these somnambulistic displays, his paroxysms being so violent that they so alarmed his second wife, to whom he had lately been married, that she has parted from him.

1313 Chouteau Avenue, St. Louis.

AN AURIST'S EARLY DISCOVERY OF THE ANÆSTHETIC PROPERTIES OF ETHER.

To the Editor of The Medical Record.

Dear Sir:—The profession has shown an interest in every step that led to the final adoption of ether as a general anæsthetic, from Sir Humphrey Davy's experiments with nitrous oxide gas at the beginning of this century, and Pereira's allusion to the use of ether in 1839, down to Morton's final triumph in 1846.

But not to my knowledge has reference been made to the near adoption of ether as a general anæsthetic in 1829, and the fact is of such interest that I beg you will allow space in the Record for an account of it.

Having occasion to consult some of the older works on aural surgery in my library, my attention was arrested by the following line in a table of contents:

"*Vapor of Æther inhaled (as assisting in the Examination of the Ear).*"

The book I was consulting is entitled, "On the Varieties of Deafness, and Diseases of the Ear, with Proposed Methods of Relieving them." By William Wright, Esq., Surgeon Aurist to her late Majesty Queen Charlotte. London, 1829.

Turning to page 38 of this work, as indicated in the table of contents, I found the following paragraph:

"Vapour of Æther Inhaled.

"It often happens, that there has been considerable herpetic eruption in the auditory passage, and the mere introduction of a piece of cotton wool, or even externally touching the ear to examine it, will produce a violent fit of coughing, through the irritation given to the fine fibres of the hard portion of the auditory nerve, which communicate the sensation to the nerves of the throat, etc.

"I have in these cases put a teaspoonful of ether into a cup, or evaporating dish, floating in a basin of warm water, and caused the patient to inhale the vapor, by merely breathing over the dish, which in almost every case will allay the irritation; and the cleansing of the ear can be proceeded in without difficulty. Some persons troubled with habitual cough, from chronic affection of the trachea alone, are peculiarly liable to have it excited by the slightest touch given to the lining of the tube of the ear; and having discovered that the above plan prevented the fit coming on, they have since constantly resorted to it with success, whenever the cough became troublesome."—(See *Aurist*, p. 79.)

Dr. Wright had, it appears, published this discovery even prior to 1829, in the *Aurist*, a serial which he edited.

Although the aural affection for which an operation was required at the hands of Mr. Wright was not one of great magnitude, it was sufficiently painful to suggest the use of a quieting agent, and his description cannot now be read without exciting our wonder that he did not push the matter further and thus obtain more practical results.

We are led to the reflection, however, that many important discoveries are not the result of sudden inspiration, but that they emanate from the labors of many. For the final and uniform introduction of anæsthesia we are indebted to the peculiar art of Morton, who, when seized with the idea, never ceased to push it forward until successful.

Samuel Sexton, M.D.

New York, July 18, 1879.

POISONING BY RHUS RADICANS.

To the Editor of The Medical Record.

Dear Sir:—I wish to call the attention of the profession to the use of the liq. chlo. soda, or Labarraque's solution, in all cases of rhus poisoning. The acid poison requires an alkaline antidote, and this solution meets the indication fully. When the skin is unbroken it may be used clear three or four times a day, or in other cases diluted with from three to six parts of water. After giving this remedy a trial no one will be disposed to try anything else. It is one of the most valuable external agents known to the profession, and yet seldom appreciated, and but rarely employed. It will sustain its reputation as a local application in erysipelas, burns, and scalds.

Respectfully,

J. M. Ward, M.D.

Cornelia, Mo.

A CONTRIBUTION TO THE SCIENCE OF ACOUSTICS.

To the Editor of The Medical Record.

Dear Sir:—This case, possessing great interest for the profession in general, is especially notable for being associated with a discovery which further explains the physiology of the voice, and on that account is of value to the science of acoustics:

A Case of Multiple Papillomatous Growths in the Larynx, extirpated by complete Laryngotomy; Removal of the whole length of both true and false Vocal Cords; Preservation of the Voice; Co-existence of Thoracic Aneurism. J. Burney Yeo, M.D., and Joseph Lister: Transactions of the Clinical Society of London, 1878.

The title of the paper explains the operation, as well as the disease for the removal of which it was performed.

The patient made a good recovery from the operation, which was performed by Mr. Lister, and it was found that he retained considerable phonetic power. His voice, however, was harsh and hoarse, still it had the characteristics of voice. He easily pronounced vowel sounds—of course at a low pitch—and he could read so as to be heard at some distance. Dr. Yeo found on laryngoscopic examination after the operation that the normal intra-laryngeal structures were entirely absent. The arytenoid eminences were seen, and also the ary-epiglottic folds stretching from them. When the patient spoke, while still under examination, these folds approached each other in the median line, and their vibrations gave rise to the sounds of the voice.

Mr. Lister was much surprised to find that this patient still retained his voice, although he expected he would be able to cough as well as other people.

Mr. Lister stated that he joined in bringing this case before the Society on account of its interest in connection with the physiology of the larynx. Mr. Lister had long ago observed that the stertor which sometimes occurs in patients under chloroform could be arrested by drawing the tongue out, not merely until the tip was well beyond the teeth, but until firm traction, or an additional pull, had made the organ even more tense. Further observations convinced Mr. Lister that the stertorous breathing was not owing to the action of the vocal cords, but to the vibrations of the pulpy, vascular portion of mucous membrane which surmounts the summits of the arytenoid cartilages—the posterior parts of the aryteno-epiglottidean folds. Mr. Lister regarded these cartilages as not only rotating upon their vertical axes, by means of which the vocal cords are approximated or separated, but that they have also a lateral movement, by which their summits, with the mucous membrane that clothes them, can be brought into mutual apposition in the middle line, or withdrawn from each other. The summits of these cartilages are also liable to an antero-posterior movement, by means of which the soft folds above them can be carried forward and applied to the base of the epiglottis, so as to constitute a secure valve of the entrance to the respiratory passage. Mr. Lister has discovered in his own person that when he made sounds, the portions of mucous membrane referred to passed forward to the base of the epiglottis, and were seen to vibrate in that position, producing what he has termed *laryngeal stertor*. The stertor could be made to pass into complete obstruction to the entrance of air when the pulpy masses were made to press more closely forward. When he drew his tongue firmly forward, sufficiently to occasion uncomfortable stretching of the frænum linguæ, the position of the epiglottis was not changed, but the mucous valve, independently of the will, retired backward, and a way was opened for the entrance of air. Mr. Lister further ascertained that these folds constituted the obstructing agent by which the exit of air is prevented during the expiratory effort which precedes coughing. The strain of coughing is thus removed from the delicate true vocal apparatus.

Mr. Lister himself produced the voice peculiar to stertorous phonation, and likened it to the sentence "Get away with you," which he had heard uttered by one little boy to another in the street, in a voice far too deep and gruff to have been produced at his age by the chordæ vocales.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

To the Editor of The Medical Record.

Dear Sir:—The tone of discussion on electro-therapeutics, assumed by the members of the American Neurological Association at their last meeting (as reported in Record of 12th inst.), is very much to be deprecated, for the following reasons:

First. It gives the idea to the profession at large that electricity can be applied in a hap-hazard way, with good *chances* of success.

Second. It shows them that those supposed to have *most* experience in the use of this powerful remedial agent, disagree as to the manner of its use.

Third. It gives them the admission of at least *one* of the instructors in this branch of medical science, that he treats without knowing which pole he uses.

They disagree so *very widely* in the most important points.

Dr. Grey could *see* a *physiological* difference between the poles, but no *therapeutical* difference.

Dr. Hammond *knew* there was a *therapeutical* difference, as witnessed in the treatment of ulcers.

It was admitted that the *positive* pole was more beneficial in treating ulcers than the negative, but why? I have used electricity many times a day for the past ten years, and have proven to *my* satisfaction that the *pole* used, the *direction* of the current, and the battery employed are of great importance. This can be demonstrated beyond quibble or doubt, by any physician of ordinary intelligence, by trying the different poles on the following diseases: insomnia, neuralgia, rheumatism, nervous prostration, painful dismenorrhœa, paralysis, strychnia-poisoning, cramps, etc. I believe many text-books extant on electro-therapeutics *muddle* more than they enlighten the general practitioner, and this discussion shows that the muddle is not confined *alone* to those who *learn*, for those who *have* and *do teach* seem to make muddle doubly muddling.

We ought at this late day to *know* something of electricity as a therapeutic agent, and if our best minds are as far at sea as this discussion would seem to imply, it is high time to appoint an investigating committee with power to send for persons and papers.

Respectfully,

J. D. S. Smith, M.D.

Bridgeport, Conn., July 15, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 20 to July 26, 1879.

Moore, Jno., Major and Surgeon. Granted leave of absence for one year, with permission to go beyond sea. S. O. 171, A. G. O., July 24, 1879.

White, C. B., Major and Surgeon. Granted leave of absence for six months on Surgeon's certificate of disability. S. O. 171, C. S., A. G. O.

Semig, B. G., 1st Lieut. and Asst. Surgeon. Having reported in person at these headquarters, assigned to duty at Ft. Fred. Steele, Wyo. T. S. O. 61, Dept. of the Platte, July 15, 1879.

Storrow, Sam'l A., Major and Surgeon. Died at San Francisco, Cal., July 12, 1879.

Chronic Bright's Disease.—Dr. N. L. Guice, in a communication to *The American Bi-weekly*, gives the history of a case of chronic Bright's disease apparently cured by the use of iodide of potassium. The patient, aged 50, had suffered from malaria, but no history of syphilis was given. He became affected with Bright's disease, with all the characteristic bad symptoms. His urine contained a large amount of albumen, together with granular and hyaline casts. Iodide of potash was ordered in doses of gr. v. three times a day, and this was gradually increased to gr. xij. during the course of treatment. The symptoms slowly improved, and by the end of six months the patient appeared in every respect well. Iron and bitter tonics supplemented the potash. Five other cases of the successful use of the iodide in this disease have been reported.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 26, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 19, 1879.	0	8	69	4	53	22	3	0
July 26, 1879.	0	4	49	1	36	24	3	1

THE YELLOW FEVER.—There seems to be a public opinion that the disease in Memphis has been kept within certain limits by the general depopulation of that city. At all events, the fever has prevailed extensively during the last week, and has reached in mortality nearly the ratio said to be required to make it allowable to call it epidemic. To be declared epidemic the number of deaths during the week must exceed those from all other causes, and the President of the Board of Health thinks it doubtful if it can be declared so this season, because the latest week's death-roll showed thirty-four for yellow-fever and thirty seven for all other causes, and all that will remain in the city after camps have been established are considered yellow-fever proof.

From New Orleans one death is reported; no new cases.

In neither New York nor Brooklyn have any new cases developed.

DEATH OF DR. WILLIAM COOPER.—Dr. Cooper died at New Albany, Indiana, July 10, 1879, from cholera morbus, after an illness of only twenty-four hours' duration. He was born in Chambersburg, Pa., in 1809, graduated from Jefferson Medical College in 1833, moved to New Albany in 1835, where he practiced medicine until his death. He was the oldest physician in that city.

THE NEW YORK ACADEMY OF MEDICINE.—DR. ABRAHAM DU BOIS, of this city, has increased his donation to the Academy to $8,000, for the erection of a fireproof extension to the building now the property of the Academy, No. 12 West Thirty-first Street.

THE AMERICAN OTOLOGICAL SOCIETY held its annual meeting at Newport, R. I., on the 23d of July, 1879, Dr. Albert H. Buck, of New York, President, in the chair.

The attendance was large, and the papers read more than usually interesting. The following were presented: "On the Progress of Otology, Anatomy, and Physiology," by Dr. J. J. Vermyne, of New Bedford; "On the Progress of Otology, Pathology, and Therapeutics," by Dr. David Webster, of New York; "Clinical Remarks upon 1,500 Consecutive Cases of Ear Disease," by Dr. C. R. Agnew, of New York; "On a Case of Ménière's Disease Produced by Metastasis of Parotiditis," by Dr. H. D. Noyes, of New York; "A Contribution to the Pathology of the Temporal Bone," by Dr. Thos. R. Pooley, of New York; "On Facial Paralysis Accompanying Purulent Inflammation of the Middle Ear," by Dr. Clarence Blake, of Boston; "On Trephining the Mastoid in a Case of Acute Suppurative Otitis Media," by Dr. H. Knapp, of New York; "Exhibition of a Cochlea Discharged from the Ear of a Child Two Years Old," by Dr. John Green, of St. Louis, Mo.; "A Case of Sarcoma of the Auditory Nerve," by Dr. George T. Stevens, of Albany, N. Y.; "A Case of Supernumerary Auricle of Rudimentary Development," by Dr. H. Knapp, of New York; and a paper on "The Treatment of Certain Forms of Diffuse External Otitis."

The society elected officers for the ensuing year as follows: *President*, Albert H. Buck, M.D., of New York; *Vice-President*, Chas. H. Burnett, M.D.

Dr. J. Orne Green, of Boston, who has served continuously as Secretary and Treasurer since 1870, and has contributed so largely by his ability and labor to the success of the Society and the complete arrangement of the Volume of Transactions, declined a re-election, and Dr. J. J. B. Vermyne, of New Bedford, was elected to that office.

Committee on Publication.—Drs. J. Clarence Blake, J. Orne Green, and J. J. B. Vermyne.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.—The annual meeting of the American Ophthalmological Society was held at the Hotel Aquidneck, Newport, R. I., beginning July 24, 1879, Dr. H. D. Noyes, of New York, President, in the chair.

There was a large attendance, and an unusually large number of papers were read and discussed at the morning and evening sessions of the first day.

At the morning session of the second day the following officers were elected for the ensuing year: *President*, H. D. Noyes, M.D., of New York; *Vice-President*, W. F. Norris, M.D., of Philadelphia; *Secretary and Treasurer*, R. H. Derby, M.D., of Boston; *Corresponding Secretary*, J. S. Prout, M.D., of Brooklyn; *Publication Committee*, E. G. Loring, M.D., and D. B. St. John Roosa, M.D., of New York.

The next annual meeting will be held in Newport.

The following papers were presented: "Extirpation in Panophthalmitis," by Dr. George C. Harlan, of Philadelphia; "The Diffusion Circles of Ametropia," by Dr. A. G. Heyl, of Philadelphia; "Ischæmia of the Retinal Vessels of both Eyes Following Facial Erysipelas," by Dr. David Coggin, of Salem, Ohio: "Case of Atrophy of the Optic Nerves in which Recovery of Vision followed the Injection of Strychnia;" also "Prolapse of Retina following Iridectomy for Glaucoma," by Dr. David Webster, of New York; "Demonstrations of Drawings of Some of the Rarer Forms of Eye Diseases," by Dr. W. F. Norris, of Philadelphia; "Paresis of the Inferior Oblique Muscle," by Dr. H. D. Noyes, of New York; "Presentation of a Tumor of the Optic Nerve of the Choroid," by Dr. H. Knapp, of New York; "Plastic Operations at the Inner Canthus," by Dr. H. D. Noyes, of New York; "On Operations for Entropion," by Dr. John Green, of St. Louis; "Notation of the Angle in Astigmatism," by Dr. J. S. Prout, of Brooklyn; "Description of a Perimeter," by Dr. Peter A. Carmalt, of New York; "Exhibition of a Trial Case of Glasses," by Dr. John Green, of St. Louis; "Statistics of Cataract Extractions," by Dr. H. D. Noyes, of New York; "Black Opacity on the Cornea and Toleration of Foreign Bodies in the Iris," by Dr. L. S. Dixon, of Worcester; "A Case of Intraocular Tumor of Rapid Growth which Resulted Fatally," by Dr. J. F. Noyes, of Detroit; "A Case of Foreign Body in the Posterior Pole of the Lens," by Dr. T. R. Pooley, of New York; "Color Blindness, Tests and Visual Standards," by Dr. B. J. Jeffries, of Boston; "Enucleation of an Eyeball, followed by Immediate Recovery in a Case of Epileptiform Disease Associated with Diabetes Insipidus," by Dr. G. T. Stevens, of Albany; "Ophthalmic Notes, a Clinical Contribution," by Dr. C. R.

Agnew, of New York; "On the Operation of Complicated Cataracts," by Dr. H. Knapp, of New York: "On the Use of Atropine in the Treatment of Strabismus,"—"A Cosmetic Application of Glasses," by Dr. Green, of St. Louis; "Influence on the Refraction of Four Years of College Life," by Dr. R. H. Derby, of Boston; "Dacrocystitis of Nursing Infants," by Dr. C. J. Kipp, of Newark, N. J.; "Case of Sarcoma of the Conjunctiva," by Dr. E. Dyer, of Pittsburg, Pa.

The American Dermatological Association will hold its third annual meeting in the city of New York on the 26th, 27th, and 28th of August, 1879.

Bellevue Hospital.—Dr. Lewis A. Stimson has been appointed Visiting Surgeon to this institution, to fill the vacancy caused by the death of Dr. John T. Darby.

The State of Michigan now takes the lead in the matter of Boards of Health. A recent law creates practically such a Board in every city, town, and village in the State.

Dr. W. B. Carpenter has resigned his position as Registrar of the University of London after a service of twenty-three years. In recognition of his work it has been resolved by the senators, graduates, and examiners to raise a fund for the purpose of procuring his portrait and presenting it to the University.

Treatment of Gonorrhœa.—At the meeting of the Nashville Academy of Medicine, April 19th, the following propositions were put forward and accepted:

1st. That gonorrhœa, in spite of the greatest care, rarely yields to treatment within from three to six weeks.

2d. That the cause of failure is due to neglect on the part of the patient to observe the rules of hygiene and diet laid down by his attendant.

3d. That the best treatment is the internal administration of alkalies, the use of bland injections, and the exclusive milk and bread diet.—*Nashville Jour. of Med. and Surg.*

Treatment of Acne.—The treatment of acne punctata with glycerine and sulphur, as first proposed by Mr. Erasmus Wilson, is indorsed by Dr. J. G. Parsons, in the *British Medical Journal*. He thinks, however, that a far more efficacious way of applying the sulphur is to dust it upon the face every night. This will often effect a cure in one or two weeks.—*Brit. Med. Jour.*

Aconite in Pneumonia.—Four cases are related in *The Practitioner* in which aconite appeared to cut short pneumonia. The drug was given on the first day, when there were crepitant râles, cough, and rusty sputa. The tincture was given in minim doses every half hour for four hours, and then in minim doses every four hours. It seemed to have a sedative as well as abortive effect. It was considered especially useful in the first stage of pneumonia.

Liability in Catheterism.—Dr. T. Chas. Wilson, of Dewittville, N. Y., writes regarding the liability of the Jacques soft catheter to entirely slip into the bladder, and suggests that the liability can be removed by the addition of a rim or flange or other simple device to make it more safe to entrust to the care of the patient.

Detection of Fragments of Stone in the Bladder.—Dr. Wooster Beach of this city suggests the following contrivance for detecting stone or fragments of stone in the bladder:

Take a piece of ordinary iron wire and bend it so that at two points in its length it shall touch the ears, and at another point shall be in contact with a sound inserted in the bladder for exploration. A stone struck by the sound will announce its presence to the ears by means of the conductive power of the wire with great clearness.

The contrivance, in this form, although simplicity itself, and costing but the merest trifle, yields results, he thinks, fully as good as the complicated and expensive microphone.

"Spina Bifida" Treated Successfully.—Dr. N. B. Slade, of McConnellsburg, Pa., writes as follows:

"Mrs. M. gave birth to a male child with an aqueous tumor attached to the lumbar region of the spine. I immediately (before the child was washed) applied a stout silk ligature around the base or pedicle of the tumor, and with my bistoury evacuated it by a free incision. I then ordered the parts to be dressed once daily and oiled well to protect the skin. In eight or ten days the dead mass dropped off and the stump healed kindly without any further trouble.

"The boy is now four years old, and is stout and hardy, and well developed. Whether operating at once had anything to do with the cure I am unable to say. But suffice it to say, if another case of 'spina bifida' falls into my hands, I shall not hesitate to repeat that which gave such happy results. If an operation is intended, why not perform it immediately?"

The Hahnemann Medical College, of Chicago, has been solemnly rebuked by the State Board of Health for conferring degrees upon persons who have not actually attended upon two courses of lectures at least six months apart. The College Faculty deplores its past, and promises a more conscientious future.—*Med. and Surg. Journ.*

Atropine in Opium Poisoning.—In a case of opium poisoning reported in *The Lancet*, atropine was given in doses, first of one-tenth of a grain, then, one hour later, one-quarter of a grain. The patient recovered, but as various other measures of stimulation were used, the recovery could not be laid to the atropine. The case showed, however, that Dr. John Harley is not correct in saying that all doses of atropine larger than one-ninety-sixth of a grain are depressing and injurious.

BOOKS RECEIVED.

A Text-Book of Physiology. By J. Fulton, M.D., M.C.R.S., etc., etc. London. Second edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson. 1879.

The Diseases of the Stomach: Their Diagnosis and Treatment. By S. O. Habershon, M.D., London. Third edition. Philadelphia: Lindsay & Blakiston. 1879.

Laboratory Teaching; or, Progressive Exercises in Practical Chemistry. By Charles Loudon Bloxam, of King's College, London. Fourth edition. Philadelphia: Lindsay & Blakiston. 1879.

Memoranda of Poisons. By Thomas Hawkes Tanner, M.D., F.L.S. Fourth American, from the last London enlarged and revised edition. Philadelphia: Lindsay & Blakiston. 1879.

Manual of the Principles and Practice of Operative Surgery. By Stephen Smith, A.M., M.D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood & Co. New York: 21 Astor Place. The Riverside Press, Cambridge. 1879.

Syphilis of the Brain and Spinal Cord. By Thomas Stretch Dowse, M.D. New York: G. P. Putnam's Sons. 1879.

Original Lectures.

LACHRYMAL CATARRH.

A Clinical Lecture delivered at the Medical Department of the University of the City of New York.

By D. B. ST. JOHN ROOSA, M.D.,

Professor of Ophthalmology.

(Reported for The Medical Record.)

Gentlemen:—When a man or a woman gets a cold in the head it is spoken of and thought of as a very trivial affection. In the ordinary course of events I have no quarrel to make with that statement. But, after all, a cold in the head is a fruitful source of very serious evils. The person who keeps himself, or herself, in such a condition that he or she infrequently has cold in the head, is safe from a great many dangers. The style of argument indulged in, in order to show that there is no danger from doing this or that dangerous thing, exposing one's self to this or that dangerous influence, is about as logical as if a soldier were to say that there is no danger upon the field of battle because he had never been shot. Thus people will tell you that they have colds in the head, have them in the summer and in the winter and at various times; sometimes, as they think, the result of imprudence, sometimes they hardly know why, and that they have never suffered from any specially evil consequences. A great deal of such statements rests upon *inexact observation*. For example, a great many people think they see perfectly, when their vision is only one-half what it should be. Again, I have very frequently seen persons who thought they heard well, when they were unable to hear ordinary conversation unless the person addressing them was near, and spoke with great distinctness. So that many of the statements about no harm having come to them rest upon inexact observations. Yet a great many people go through life without suffering from serious disease, frequently have a cold in the head, and die octogenarians. I grant all that, and yet, at the very outset of what I am about to say with regard to this case of double lachrymal catarrh, I will tell you that I am to lay great stress upon the etiological factor termed getting cold, and I shall attempt to show you that it is the source of most of the lachrymal catarrh with which we have to deal. I saw this patient for the first time yesterday, and the surgical operation which I then performed has so improved her appearance that you cannot have a full idea of how she looked at that time. Her eyelids were very much reddened along the margin—the ciliary margin—a term which I dislike because it is liable to be confounded with the ciliary region of the eyeball—and there was adhering to them a large quantity of dried secretion. In the corners of the eyes there was the same appearance which is now presented. In addition, there was a tumor upon the right side, over the lachrymal sac, and the eyes were overflowing with tears. These are the symptoms of chronic lachrymal catarrh. What I then did for her was to slit up the little canal which you all know passes from the lower eyelid into the nasal duct. You can easily see the punctate opening of that canal in the healthy eyelid by drawing the eyelid down, and there will be no excuse if you do not know *exactly* where that punctum is from this day on. I introduced vertically a delicate probe-pointed knife, such as you here see, into the punctum, and slit the canaliculus well up into the lachrymal sac. I had much difficulty in getting into the lachrymal sac, because the disease had gone on to such an extent that it had dilated the walls of the sac; it had encroached upon the lachrymal bone beneath, and produced caries. I had difficulty in finding the opening into the nasal duct upon both sides; indeed, I did not find it upon one side on account of the large amount of carious bone.

Now let us hear her own story. She is thirty years old, and married. She says that when a small girl she had some trouble with her left eye, and recollects that there was an almost constant running of tears from it. The present trouble, and that which has given her more marked inconvenience, has existed about four or five years. There is free overflow of tears whenever she uses her eyes closely in sewing or other work, or reading, and especially when they are exposed to the wind. It is usually the fact, in connection with this trouble in the eye, that the overflow of tears is much greater when the organ is exposed to the wind than when exercised at work, even when considerable strain upon the accommodation is produced. There are many persons who have lachrymal catarrh that does not give them much inconvenience so long as they remain in the house, but the moment they go out into the air it becomes very troublesome. But in this case, it appears, it was troublesome both in the house and in the air, and, therefore, a well-grounded case of lachrymal catarrh.

Sometimes the general practitioner may mistake lachrymal catarrh for conjunctivitis, and it is very important that this error should not be fallen into, for you may treat lachrymal catarrh by the use of astringents from now until all your patience and patients are exhausted, and you will never cure it. The astringent will not get into the punctum or into the canaliculus; it will not go where it is needed; it will not do any good; and no man is justified in giving an astringent prescription for lachrymal catarrh. You might as well rub the astringent upon the outside of the cheek as to place it in the eye, for the opening is not large enough to allow it to enter the canaliculus in any sufficient quantity. Besides, there is usually stricture of the canal, there is always considerable swelling, and an astringent solution cannot enter in sufficient quantity to be of any radical service whatever.

When a patient comes to you with lachrymal catarrh, and you are sure of your diagnosis, and yet do not feel competent to either probe the puncta or slit the canaliculus and introduce a probe into the nasal duct, do nothing, but tell your patient that there is an imperative necessity for an operation which you do not feel competent to perform, if radical benefit is to be obtained. But how are you to tell whether the case is one of conjunctivitis or of lachrymal catarrh? I remember the great Von Græfe had a habit which all of us would do well to imitate, and that was, whenever a patient with red eyes sat in front of him, he at once put his thumbs over the lachrymal sacs and pressed upon them, to see whether or not muco-pus could be made to pass from the puncta. If it did, he immediately knew that, whatever else there was, lachrymal catarrh existed. Not that there was no lachrymal catarrh when he was not able to do that, for a patient may have emptied the sac and canaliculi, from force of habit just before entering the room; at all events, the important questions to be decided in every case of conjunctivitis are, the condition of the punctum, the canaliculus,

the sac, and the nasal duct. This is not a disease of the manufactory of the tears, but a disease of the conducting apparatus through which they are transmitted from the eye to the nose. If by pressure upon the lachrymal sac you can satisfy yourself in relation to diagnosis, very well; but, if you cannot, make a close examination of the conjunctiva, and see whether or not it is reddened throughout its entire extent—whether or not it is slightly more intense toward the lachrymal passages, and also look carefully at the edges of the eyelids. In this manner you will soon be able to satisfy yourselves as to whether the patient is probably suffering from lachrymal catarrh. So much stress has been laid upon this subject, that at the last meeting of the ophthalmologists of this country a paper was read upon lachrymal conjunctivitis, the writer supposing that even experienced oculists might sometimes make the mistake and diagnosticate conjunctivitis when they should have diagnosticated lachrymal catarrh. It is therefore worth your while, as general practitioners, to be upon your guard against such a mistake.

I did not give this patient an anæsthetic, and she suffered considerable pain; but she has exhibited her confidence in the treatment by coming here today and allowing us to examine her eyes. Let us return for a few moments to the history of her case. She says that after suffering for a short time, when a small girl, she entirely recovered from the trouble in her left eye. Some three or four years ago the trouble reappeared, but we do not obtain any history of its having been excited by cold in the head, and indeed the only apparent cause we succeed in reaching is the fact that she was just then taxing her eyes severely upon fine sewing.

I will now return to my starting-point, and will give my opinion regarding the origin of lachrymal catarrh. I believe that it originates chiefly in naso-pharyngeal catarrh, and I believe that naso-pharyngeal catarrh originates chiefly in persons who are not very vigorous, and who live under improper hygienic conditions, and in persons tolerably strong, but who also live under improper hygienic conditions. No person in a physiological state of health, unless exposed to extraordinary influences and severe changes of temperature, will get naso-pharyngeal catarrh. Let me name over, as my memory suggests, the kind of people who have naso-pharyngeal catarrh. Any person whose system is tainted with syphilis is liable to naso-pharyngeal catarrh upon the slightest provocation. For, you must not forget that syphilis is a blood-poison, and it is also a disease which may be excited into action by improper hygienic conditions, and often by slight exposures. A man working in a damp cellar, for instance, who has syphilis in his system, may have a sudden outbreak of symptoms indicating the development of gummy tumor or syphilitic deposit at the base of the brain, about the auditory nerves, or along the origin of the third pair; the provocation being the exposure to cold while at work. This is the reason why the practitioner should look upon syphilis as a disease that may manifest itself in any part of the body, and should take great pains with regard to the general condition and surroundings of his patient. The reason why many get well of syphilis without much special treatment is found in the fact that they have abundance of good food and live under proper conditions after the poison enters the system.

Again, little children who are improperly fed and clothed, and perhaps inherit a consumptive diathesis, get naso-pharyngeal catarrh upon the slightest provocation.

Again, those people who live improperly with reference to food and drink are very liable to this affection. The man who drinks a great deal of alcohol necessarily does not care for much solid and nutritious food, and in consequence his system becomes depreciated, and he is apt to get naso-pharyngeal catarrh.

Again, the class of persons who live and work indoors most of the time, who do not get a proper amount of physical exercise, who do not bathe themselves sufficiently with cold or lukewarm water and groom themselves properly—whose skin does not react quickly after sudden exposure, those people are very frequently suffering from naso-pharyngeal catarrh. You scarcely ever, probably never, hear of an athlete, or a country gentleman who superintends his own farm, and at the same time taking the greatest personal care of his general condition, having naso-pharyngeal catarrh.

The fundamental thing is to have a sound body by all the rules which you or I can or do learn. After I was away from maternal care I was not brought up to take a cold bath daily, but I soon began to appreciate what it will do for a man slightly built and obliged to live indoors a large part of the time. Since I have seen what attention to the skin has done for me and can do for others, I never can sufficiently impress upon medical students that, under ordinary circumstances, the natural condition of every human being demands that he should have his skin well groomed every day. Not with much soap necessarily, nor necessarily with a large quantity of water, but he should be well rubbed in order that his skin may be kept in a proper condition. I am confident that a great deal of lachrymal catarrh can be avoided in that manner. In some cases, however, the disease advances from the other direction, and a conjuntivitis goes on until it develops a lachrymal catarrh. The same remarks which I have made regarding naso-pharyngeal catarrh are to a certain extent applicable to conjunctivitis; not so much, however, for, as I have already told you, a man may get conjunctivitis from overworking the eyes, or from exposure to wind and dust when he is in a good condition of health.

How shall we treat these cases when they have the condition which was present in this woman's case yesterday. She is anæmic. I might have said to her, you had better go home, take cod-liver oil, iron, etc., and do so and so, all of which would be proper for a patient in her condition; but all that would not cure her lachrymal catarrh. The surgeon must interfere. A condition has been reached which cannot be cured by general medication. There must be positive dilatation of these parts; these obstructed passages must be so relieved that they can carry off the natural secretion. That is done by a simple procedure, which I propose to do before you as far as possible. The history of the steps which have led us to this procedure is very interesting. The old style of treatment was to cut into the lachrymal sac from the outside, introduce a probe or canula, and leave it permanently. In that manner a permanent disfigurement was caused, which, particularly in females, was regarded as so great that many of them preferred to suffer the lachrymal catarrh rather than to submit to such a permanent blemish. Besides all that, it did not cure the people in probably more than fifty per cent. of the cases. No longer ago than sixteen years, when I was house-surgeon in the New York Hospital, it was the general opinion there that treatment of lachrymal

catarrh was one of the opprobriums of the profession. I do not say that such was the advanced opinion, for probably at the Eye and Ear Infirmary at that time the surgeons were treating the disease rationally. But if we go back as far as twenty-five years, I think a period will be reached when the treatment of lachrymal catarrh was pre-eminently unsatisfactory among all kinds of surgeons. At the present time my individual experience is such as leads me to believe that it is pre-eminently satisfactory. There are certain cases that come to my office which I dread to meet. But I am always glad to see a patient enter who has lachrymal catarrh, because I feel more or less sure that I can do a great deal, except in extraordinary instances, to relieve his condition. I think that something has already been done for this woman in the last twenty-four hours by the surgical operation which I performed yesterday. It is an operation which every one of you who is fit to open an abscess can learn to perform.

How was this method of treatment reached? Mr. Bowman, of London, the physiologist of former days, suggested that the canaliculi be opened, that it be converted into an open canal. He did that with scissors, having first probed it, and then passed a probe into the nasal duct. We now use a knife to open the canaliculus, and we do not resort to the preparatory probing in the ordinary cases. Yet, the principle which Mr. Bowman enunciated is still carried out in all places where ophthalmic disease is treated according to the advanced opinions of the nineteenth century. You will hear of Stilling's method of cutting through the stricture, and you will hear of destroying the lachrymal sac and other procedures which become necessary; but it is my conviction that in a very large percentage of cases—so large as to render the others completely exceptional—you will do very well if you learn to dilate the canaliculus and probe the nasal duct. If you will patiently and persistently treat cases in that way, you will get very good results indeed. Children should be put under the influence of ether before the operation of slitting the canaliculus is performed; but you may learn to probe children's eyes without an anæsthetic. Lachrymal catarrh in children is usually recovered from very rapidly. One probing is frequently sufficient in very young children to effect a cure of a mild case of lachrymal catarrh.

It will be observed that I have not said anything about lachrymal abscess or concerning the formation of lachrymal fistula. These are the consequences of lachrymal catarrh; they are the second stage in the inflammatory process, exactly as purulent conjunctivitis is the second or third stage of catarrhal conjunctivitis, and the treatment is essentially the same as in the catarrh. Get the passages into such a condition that nature can do the work of carrying off the tears, and the abscess will take care of itself. I would like to speak of acute lachrymal abscess, but my time is now too limited. I will simply say that you must be upon your guard lest you consider acute lachrymal abscess, supervening upon a natural catarrh, as it usually does supervene—you must be careful, I say, lest you regard it as a case of facial erysipelas, and proceed with local applications, such as lead and opium, or, with constitutional ones, iron, and so forth. Please to remember that the history of the case is an important factor in diagnosis in those instances, and you should determine whether or not the patient has had a weeping eye for some time previous to the acute attack—for there will be no lachrymation when the parts are greatly swelled—and you can usually make a correct diagnosis.

[The patient was then placed in position, and Bowman's probes were introduced into the nasal duct.]

So much dilatation has been made by the progress of the disease, that probe No. 5 can be introduced quite readily. I introduce it first vertically, then horizontally, and then again vertically, and as you see it is now in the nasal duct.

In the left eye I yesterday reached a carious cavity, but did not succeed in passing the probe into the nasal duct; but I have now reached the duct, the probe has entered it, and the patient is in the condition of being treated. These probes may remain in from *ten* to *thirty* minutes, and I do not think much is to be gained by allowing them to remain longer at any single sitting. The principle of treatment is dilatation of a canal whose calibre is filled by a swollen mucous membrane. The gentlemen at the hospital often ask, "How much force do you use in introducing the probe into the nasal duct?" It is impossible to answer that question. I cannot answer that question any more than I can by words teach a man how deep to cut in order to get into an abscess. It requires the *tactus eruditus* of which the ancients spoke so much. It is simply a matter of experience, and it is in that way only that you will learn how much force to employ. The only principle I bear in mind in probing these passages is to be sure that my probe is in the canal, and then I use as much force as is necessary to go through. It all resolves itself into the advice given by David Crockett: "Be sure you are right, and then go ahead." Be sure your probe is in the nasal duct, and then go ahead. The canal is not like the urethra. If you have had experience in sounding the urethra, you know there is no care which should not be exercised, nothing which you can neglect unless at the expense of safety. But in this instance you have a different condition of things. You are here dealing with a bony canal, except as to the outer side, and if your probe is once in that canal you can go on with comparative safety. Now and then, I know, we treat stricture of the urethra differently; but if you propose to treat such strictures by gradual dilatation, you know you must be very careful with reference to the exact course in which your instrument is moving.

One point further. How many of these cases go about without treatment! A case of lachrymal catarrh which has persisted for weeks or months should be treated, not only for the present relief, but also to prevent the formation of lachrymal abscess, which is extremely painful, and which may lead to very considerable personal inconvenience, not only to the physician, but to the person suffering from it. Therefore I say, that if you feel sure you have a case of lachrymal catarrh, and it is established that it is not a case in which the condition will pass away within a few days, treat it, and by the method just described.

Women in Harvard Medical School.—A meeting of the Board of Overseers of Harvard University was held some time ago to decide as to whether they should accept a bequest of ten thousand dollars on condition that women be allowed admission to the medical school. It was voted to decline this proposition. At a subsequent meeting, however, a resolution was passed asserting that, under suitable restrictions, it would be expedient to allow women to be instructed in the medical school. Harvard is thus put on record both for and against the medical co-education of the sexes.

Original Communications.

A CASE OF OSSEOUS TUMOR IN RIGHT ORBITAL CAVITY SUCCESSFULLY REMOVED, WITH PRESERVATION OF THE SIGHT.

By VAN S. LINDSLEY, M.D.,

PROFESSOR OF PHYSIOLOGY AND DISEASES OF THE EYE AND EAR, UNIVERSITY OF NASHVILLE AND VANDERBILT UNIVERSITY, NASHVILLE, TENNESSEE.

Mr. Bills, of Verona, Marshall Co., Tennessee, consulted me last February about his eye. I found exophthalmos of the right eye existing to a very marked extent, the left being normal. Two years ago he noticed that the eye seemed more prominent than the left, and some months afterward he suffered intense pain behind the globe, which continued for, as he expressed it, "one hundred hours." During the pain a swelling occurred at the upper and inner side of the orbital cavity, and finally broke, emitting matter. The pain then ceased and swelling apparently receded. Again, in a few months, his friends noticed that the eye was getting prominent. It has been steadily and gradually pushed forward up to the present time, May 1, 1879, and presents the following appearance and condition:

The exophthalmos is very great, the ball being pushed beyond the circumorbital ridge, so that the lids do not entirely cover it. The cornea is bright and healthy, and also the general conjunctival covering, except the lower half, which is redundant and highly congested. At the junction of the roof and inner side of the orbital cavity there can be seen and felt a distinct nodular swelling about the size of a forefinger knuckle. When traced as far as the finger can explore, it is found to pass back far into the orbit behind the ball, and to become larger as it goes. The skin is loose over the tumor, and, excepting some enlarged veins, healthy.

The sight of the eye is good, considering the amount of tension and pressure so long exerted on the optic nerve. The patient says it is as good as that of the other eye, but on examination I found he could only read No. 12 Jaeger's types, for distance Snelling's No. 40.

The movements of the eyeball are somewhat impeded, and he sees double only at certain times.

Dr. Nowling, now of this city, and formerly of Marshall County, having been Mr. Bill's family physician, was consulted also in reference to the case. After examining the case carefully we determined on an operation for removing the tumor, which was accordingly done, with the assistance of Drs. Nowling, Drake, Rogers, and Sharber, of Columbia. Ether was selected as the anesthetic, and Squibbs' preparation used freely and faithfully for one hour and fifteen minutes, without producing the proper effect. There being no prospect, apparently, of securing anesthesia by this mode, chloroform was substituted, and soon the patient was breathing stertorously after inhaling about one drachm.

An incision was made with scalpel in the crease of the upper lid, commencing at the inner upper orbital angle about half an inch long and over the tumor. After the division of the various layers down to the tumor, the finger was passed down, separating the tumor from the eyeball and surrounding parts, and tracing it back as far as the upper border of sphenoidal fissure, where it seemed to have its original attachment. The neoplasm was so firmly attached to the periosteum of the orbital roof, that the periosteum had to be ruptured and peeled back in order to force it from its upper attachments. It was found now that the neoplasm was far too large to be removed through the opening already made in the lid, so that by means of an ordinary steel elevator and the finger, I ruptured the tumor and removed the anterior half by piecemeal. The remaining portion was cut loose from its attachment to the bones by means of long curved scissors. The bleeding was very profuse, and although there had necessarily to be considerable pressure on the ball, the muscles and optic nerve were preserved intact.

A few minutes after removal of the tumor the eye was easily replaced in its natural position, but soon afterward such swelling took place as to cause the eye to protrude worse than ever, and the only way we could repress it was to put several stitches in the margins of the lids. This, with a well applied roller-bandage, held the eye in place and controlled the swelling.

After a few days the stitches were removed from the lids and the ball found to be movable, free from inflammation, and sight as good as before operation. The wound through which the tumor was removed healed by first intention and gave no further trouble. The patient has written since returning home that the eye continues to improve.

The tumor we found to be of an elongated form antero-posteriorly, and compressed above and below by the eyeball and roof of the orbit. It consisted of a strong investing membrane resembling periosteum both in texture and strength, and was loosely connected with its surroundings excepting the roof of the orbit, where the periosteum and membrane of the tumor seemed continuous, or one and the same. The interior of the tumor was a friable cancellated bony tissue, which was capable, as stated before, of being broken to pieces by the elevator, used in removing parts of the growth. Bone tumors occur occasionally in the orbit as outgrowths from some portion of the lining periosteum, and may be either of the spongy character as related above, or of the hard eburnated kind.

REPORT OF A CASE OF HYDROPHOBIA (RABIES) SUCCESSFULLY TREATED WITH CURARE.

By Dr. AD. OFFENBERG,

ZWICKRATH (RHEINPREUSSEN.)

(Translated by S. W. Williams, M.D., Bellevue Hospital.)

Anna Heitmann, a servant-girl in the employ of a peasant named Hense, while passing the yard of one Jürgens, a neighbor, on the 28th of July, 1874, was bitten in the left heel, through the stocking, by a spitz dog.

The dog had been, during fourteen days, chained near the highway, for the protection of linen which was bleaching in the yard. The girl was in the habit of passing the house several times daily, and had won the friendship of the dog by throwing to him pieces of bread. It seemed strange, under these circumstances, that the animal should have bitten her without the slightest provocation.

Overlooking the account given by the servant-girl of the subsequent behavior of the dog as possibly exaggerated, we have the statement of the owner, supported by several neighbors, that the dog was not

naturally ugly; that upon the same forenoon, and shortly after he had bitten Anna H., he was seen to be very uneasy and to run round in circles as wide as his chain would permit. He pulled at and bit the chain, and was constantly springing up against the neighboring wash-house. At mid-day, the condition of the dog being much worse, the owner sent for a veterinary surgeon, who, upon the mere statement of the animal's condition, pronounced him to be mad, and advised that he be immediately shot.

This unusual and striking behavior of the dog raises the strongest suspicions of hydrophobia—a suspicion which is justified by the fact that, in the summer of 1874, the village was repeatedly thrown into excitement concerning dogs that were either suspected of being mad or were so in reality. In the very beginning of the summer a strange dog, showing signs of hydrophobia, had wandered about the place, and had bitten a number of other dogs, which were straightway killed by order of the police. At the end of June the dog of Wessels (a peasant of the place) grew sick and restless, ate nothing, wandered about in the neighborhood, bit some of the cattle and several of the residents of the farm. Schulter Wessels, a man thirty-four years of age and proprietor of the estate, was bitten in the right hand. The dog was caught and confined, and a few days later died. The veterinary surgeon who made the autopsy pronounced the death of the dog to have been the result of hydrophobia.

Wessels was persuaded by the surgeon to have the wound in his hand cauterized with nitrate of silver, and to take for several days, as a prophylactic, a remedy the composition of which was unknown. When Wessels learned that Jürgens's dog had bitten Anna Heitmann, he determined to procure for her the remedy by means of which he believed himself to have been secured against all danger of an attack of hydrophobia. On the 29th of July, while writing a letter for this purpose, he was taken suddenly very ill, and was unable to finish the letter. From this time the signs of hydrophobia went on developing, and he died early upon the morning of July 31st.

A few days later it was found necessary to kill a jackass belonging to Wessels's farm. He had been bitten by the same dog, and had grown very uneasy, and disposed to bite every one who came in his way. He was especially inclined to bite the calves.

In view of the facts now stated, there seems to be no doubt but that Wessels's dog was suffering from hydrophobia; and, since the courtyards of the two men—Wessels and Jürgens—were separated by only about 300 paces, it is altogether probable that Jürgens's dog, four weeks before his sickness, came in collision with the other dog as he was wandering about, and was by him bitten and infected.

As already mentioned, Wessels was taken sick on the 29th of July—that is, upon the day after Anna H. was bitten. Upon the 30th of July the two physicians of the neighborhood, Drs. Hölker and Wilkinghoff, attended Wessels at his house. Anna Heitmann availed herself of this opportunity to consult them in regard to her own injury. When it became known that the master of the house was suffering from hydrophobia, the servants were thrown into the greatest consternation, and many of them immediately left; thereupon Anna H. consented to remain for a while and assist in the housework. She was thus a witness of the severe convulsions and delirium of the sick man, and also of his death.

On the 30th of July, two days after the servant-girl had been bitten, Dr. W. found upon her left foot, between the tendo-Achillis and outer malleolus, an excoriated place about the size of a ten-cent piece, of a reddish, bloody appearance, from which oozed a reddish fluid. The doctor ordered a warm foot-bath for the purpose of cleansing the wound, which had thus far received no treatment beyond simple dressing with a piece of linen. He also prescribed a concentrated solution of caustic potash, and directed that with this the girl should herself cauterize the wound.

The apothecary was at a considerable distance, so it was not until the lapse of several hours that she was able to apply the caustic. This she did in the following way: having soaked a piece of linen in the solution, she laid it repeatedly upon the region of the wound, in this way producing on the outer side of the foot a deep eschar almost as large as the hand.

A few days later she tried a course of treatment very highly esteemed in that region as a preventive to the outbreak of hydrophobia. The treatment consisted in going twenty-four hours without food, drink or sleep, and at the same time taking a mixture composed chiefly of a concentrated solution of chloride of sodium, to which were added certain acrid juices of plants. According to the statement of the patient, her mouth and throat were sore when she began to use this remedy, and the acrid fluid therefore caused severe burning pain. The girl said her tongue was swollen so that she could scarcely move it, and that the acts of speaking and swallowing were attended with great pain. Since all attempts to drink caused great distress, she objected to taking the proffered medicine, and gave expression to her aversion by gestures. The people of the house, who had grown timid and suspicious on account of the recent death of their neighbor, thought the actions of the servant-girl betokened dread of water and convulsions, and sent for the nearest doctor, in the belief that hydrophobia was already developed. The true state of the case remained unknown to the doctor, since the patient could not make herself understood, and the inmates of the house, intentionally or unintentionally, remained silent concerning the remedy which the girl had been taking. Dr. Hölker, who did not make a careful examination of the mouth and throat, saw in her actions only signs of dysphagia and convulsions. These appeared whenever she attempted to drink. The doctor prescribed for her a preparation of morphia. Four or five days later all these unpleasant symptoms and the gastritis, which had existed at the same time, had completely disappeared. The girl was very nervous in regard to her condition, and returned to her home. The wound upon her foot was at first treated with carbolic acid in solution, and then with basilicon ointment, since Dr. W. proposed to keep it suppurating for at least three months. This mode of treatment, however, was incomprehensible to the pastor of the place. He declared the physician a quack, and, fearing lest the girl should lose her foot, and in order that she might come under more "intelligent" treatment, brought about her reception on the 8th of October, into the Franziskus Hospital, in Münster, i. W.

Anna Heitmann, unmarried, 24 years of age, comes of a peasant family in the parish of Herbern. The nine grown-up brothers and sisters and the parents enjoy the best of physical and mental health. No disease of the nervous system was ever known in the family. She herself has never been seriously sick. The catamenia began in her fifteenth year, and although, during the last year and a half, more abundant and more frequent than formerly, they have run

their course without any difficulty worthy of mention. She is a well-nourished, strongly built person, and appears to be in vigorous health. Her educational acquirements are below the average for persons of her condition in life. She displays a clear mind and good disposition, and her genial manner obtains for her the good-will of all who come in contact with her. She says she is in constant dread of the outbreak of hydrophobia, and that by thinking so much about the disease which threatens her, she is frequently startled from her sleep at night.

On the outside of the left foot, extending from the tendo-Achillis over the dorsum, is a reddish granulating wound surface about the size of the palm of the hand. Here and there the edges are undergoing cicatrization, and near the borders of the wound are a few pustules and superficial ulcerations. On account of the size of the wound it was considered unadvisable to continue the use of irritating applications; and by the 16th of October, under a simple dressing, the granulating surface had become much smaller. On the 10th of October the menstrual flow began; it was not accompanied by any disturbance of the general health, and by the 16th of October it had nearly ceased. She passed the 16th of October in her usual way; was up and about the ward most of the time; neither by the physician, nurses, or neighboring patients was any change observed in her manner until evening. At 6 P.M. she ate her supper with a fair appetite; about seven o'clock she seemed rather nervous; a jesting remark, intended to soothe her, not only failed of its purpose, but also caused her to cry, although, as she herself later admitted, there was no sufficient reason for this in what had been said. The other patients of the ward were astonished at her behavior, and rebuked her for it. In addition to this abnormal sensitiveness she was suddenly seized, about 8 P.M., with an attack of dyspnœa, directly caused by an attempt to drink. She was unable to swallow any of the water, and now convulsions followed one another in quick succession. At their first appearance it was inferred that the patient was suffering from hydrophobia, and this suspicion being confirmed by nurses who had already seen cases of hydrophobia, she was at once isolated from the other inmates of the ward. I reached the patient at 10.45 P.M. She suffers from extreme uneasiness and anxiety; cries and moans constantly; is fully convinced that she has hydrophobia, and that there is no hope of recovery. She complains of pain in the upper mammary and anterior cervical regions, especially severe in the region of the larynx and of the hyoid bone; pressure at these places seems to increase the pain. She also has severe pain in the throat, yet nothing abnormal can be seen—neither redness nor swelling. In making the venturesome experiment of inserting my index-finger deeply down her throat, I observed a marked decrease of sensitiveness in the soft parts, for, when I irritated these parts with my finger, no reflex movements were aroused. The secretion of saliva is not increased. There are no vesicles of Marochetti under the tongue. The temperature of the body is only slightly raised. Not the slightest change can be detected in the wound on her foot, yet she sometimes has pain in it which extends as high as the knee. Extreme muscular restlessness pervades the whole body; the muscles of the extremities especially are the site of slight unremitting convulsive movements. The pulse at the wrist cannot be counted, owing to the jumping of the flexor tendons. At intervals of one or two minutes occur inspiratory spasms and general clonic convulsions. These spasms are ushered in by short, groaning sounds, produced by the forcible passage of air through the narrowed glottis. The chest, at the same time, assumes the position of inspiration and becomes more fully expanded; the shoulders are drawn upward, the head backward; the sterno-cleido-mastoid muscles stand out as thick and firm bands; other muscles of the neck are quite prominent. The thorax remains fixed in the position of inspiration for ten or fifteen seconds, during which time the rest of the body is in a state of severe clonic convulsions; the arms are tossed wildly about, or are fastened convulsively upon the proffered hand. During these convulsions she suffers from great dyspnœa; constriction in the breast; a feeling as though the larynx were drawn together; there is also pain in all the limbs.

If the convulsion remits a little, the breathing, at first superficial and rapid, becomes more quiet. A short time before a convulsive attack begins, she is warned of its approach by an increase of her uneasiness. Every attempt to drink arouses a feeling of constriction in the throat, and it is only with the greatest effort that she is able to swallow a little fluid, and these attempts to swallow are always followed, in a few seconds, by an inspiratory spasm.

10.30 P.M.—Subcutaneous injection of 0.02 (gr. $\frac{1}{3}$) morphia, and inhalation of chloroform.

10.45 P.M.—Within the last half-hour the patient's condition has in so far grown worse that the above-mentioned convulsive attacks are more severe and frequent, that great photophobia has developed, and that the symptoms of real hydrophobia now exist. Her thirst is extreme. She is now utterly unable to drink; heretofore she has been generally able, although with the greatest effort, to swallow a little liquid. As the glass touched her lips she trembled, stared confusedly around, and, having been raised up that she might more easily drink, threw herself back with great force upon the bed. This difficulty in drinking she attributed to the odor of the fruit-juice that had been mixed with the water; but the same symptoms were aroused by every attempt to drink clear water. Indeed, the mere approach of the glass to her mouth caused her to shudder, and called forth gestures of the strongest opposition. Generally, every such attempt was followed immediately by a severe convulsion.

During the intervals the anxiety and precordial uneasiness had markedly increased. She requested to have the prayer * of the death-bed read to her.

After one very severe and painful attack she cried aloud for different members of her family, and asked bewildered, "Where am I?"

The injection of morphia had exerted no sedative influence; on the other hand, the disease had grown worse. The dose of morphia was therefore not repeated. The inhalation of chloroform, carried to the point of stupefaction, gave great relief, yet each time the anæsthetic was thus used it seemed to me that the next respiratory effort aroused a fresh attack of convulsions.

Considering the diagnosis of hydrophobia established, I believed there should be no further delay in using curare. There happened to be in the hospital a solution of this drug 0.5 : 10.0 aq. dest. filtered (gr. $7\frac{1}{2}$: ℥ ijss.).

I had proved the effectiveness of this solution not only upon frogs, but also a year previously in two cases of traumatic tetanus. These cases ended fatally, but the observations then made urge to an active use

* Sterbegebet.

of this poison. In the first case 0.002 to 0.02 (gr. $\frac{1}{30}$ to $\frac{1}{3}$), curare was injected at intervals of five hours without the slightest apparent effect. In the second case 0.015 to 0.06 (gr. $\frac{1}{4}$ to $\frac{9}{10}$) curare was injected at intervals of three or four hours. After the last dose of 0.06 there was a brief relaxation of the tetanic symptoms.

Having now determined upon the use of curare, at 10.45 P.M., about three hours after the sudden outbreak of the attack, 0.02 (gr. $\frac{1}{3}$) curare was hypodermically injected; fifteen minutes later, there having been no appreciable effect, the dose was repeated. The general muscular tremor, which had existed all along during the intervals between the convulsions, became gradually less, and finally almost disappeared, The pulse at the wrist was now easily felt and counted. It was generally 80 or 90 beats per minute; after a convulsion 100 to 104; beyond this there was nothing remarkable about it.

12 P.M.—The intensity of the respiratory spasms continues the same, but the duration of the intervals between them seems to increase. The intervals average about two minutes in length.

The photophobia is intense. The patient says, when she sees the flame of a candle it seems as though she were looking directly at the unclouded sun. Notwithstanding that all bright light was kept away by means of screens, she said the light was too bright. Even after all lights had been removed she complained bitterly if a ray of light reached the darkened room through the open door.

The auditory sense seemed very acute; words spoken in the neighboring room, intentionally in a low voice, which one would not have thought it possible for her to hear, she fully understood.

Repeated efforts to drink were not only unsuccessful, but caused severe convulsive attacks.

12 P.M.—Subcutaneous injection of 0.03 (gr. $\frac{5}{3}$) curare. The hypodermic injections were dreaded by the patient on account of the pain caused by the puncture; but she was easily persuaded to allow it to be done. It became more and more evident that the pauses between the convulsions were increasing in length. She now complained of severe lancinating headache, which was alleviated by cold compresses.

October 17th, 1 A.M., 0.03 (gr. $\frac{5}{3}$) curare was injected. The intervals between the convulsions are longer, extending to five minutes; the convulsions, however, are as severe as before. Her anxiety and uneasiness is much less intense. She herself perceives the improvement in her condition, and no longer refuses to believe that there is hope of recovery.

2 A.M.—0.03 (gr. $\frac{5}{3}$) curare injected subcutaneously. During the intervals between the convulsions the patient feels tolerably well, complains only of headache. She is less irritable and emotional. The sensation of constriction in the chest has disappeared. The pain in the throat and neck is much less severe. She is cheerful, and thinks that she will completely recover.

2.30 A.M.—0.03 (gr. $\frac{5}{3}$) curare injected. She is unable to swallow pieces of ice, and every attempt to do so is immediately followed by a severe convulsion. The intervals are now sometimes ten minutes long. She is remarkably communicative, indeed, loquacious. She gives long acounts of her early life. She told in a sprightly tone how she had cured herself and other persons of scabies by a salve which she prepared from fat oil and snuff. She joked about her own condition, and, if interrupted by a convulsion, would pick up the conversation when it had passed and go on in the same lively manner. Urged by her great thirst, she was always anxious to make one more attempt to drink, and was always unsuccessful.

3.10 A.M.—No convulsion having occurred during the last fifteen minutes, one was observed, which in severity and duration, was much less severe than any that had previously occurred. Ten minutes later, in compliance with her earnest entreaty, a glass of water was given to her, but it had scarcely touched her lips before she shuddered and passed into a severe convulsion.

3.20 A.M.—0.03 (gr. $\frac{5}{3}$) curare was injected. Shortly before this the patient had complained of a peculiar weakness in her right shoulder; immediately after the injection she said all her limbs were growing lame. Intense symptoms of paralysis were now very rapidly developed—within one minute. She was no longer able, unassisted, to raise herself in bed. She could not move the upper extremities at the shoulder or elbow, nor the lower at the hip or knee. Voluntary movement of the fingers and toes was possible only in a slight degree. Respiration was not involved. She continued to be cheerful and talkative. The extremities were rubbed with spir. sinapis, and compresses soaked in this were placed upon the throat and breast.

3.30 A.M.—A mild convulsion occurred, the thorax expanded as in the earlier attacks, but remained in this position only a few seconds; meanwhile there were slight spasmodic movements in the fingers, then respiration again became normal.

3.45 A.M.—There occurred a short, feeble convulsion which lasted but a few seconds. After it had passed, and she had breathed superficially a few times, the respiratory movements ceased altogether and without the occurrence of a convulsion. Respiration was, however, at once restored by strong pressure upon the abdomen and thorax.

4.15 A.M.—There occurred a short convulsion which seemed to have been cut short, and the patient thinks she arrested it by force of will. After this convulsion the same complete arrest of respiration occurred, and rhythmical compression made three or four times on the chest and abdomen sufficed to restore normal breathing.

At twenty-three minutes past four occurred the last convulsion that she had; it was scarcely more than an irregular convulsive inspiration. For several hours the paralytic phenomena continued, and extended to the organs of speech. The patient, who had been so talkative, could now answer questions only in a weak voice. Movement of the eyelids was difficult, and they opened and shut slowly. The respiratory movements now became weaker and more superficial, but were not interrupted.

When the extremities were touched, pressed upon, or moved, she felt severe pain. Especially painful were the places where the hypodermic needles had been inserted. There was still severe pain in the head and in the region of the larynx and hyoid bone; she could not move her limbs; there was no tendency to sleep. Toward 7 A.M. the skin became moist, and, by means of hot bottles and thick covering, profuse diaphoresis was induced.

7.30 A.M.—The paralytic phenomena having become somewhat less severe, she drank a glass of water without difficulty or bad results. From this time on she was able to drink whenever she desired to quench her thirst, which was extreme.

8 A.M.—The patient was carefully placed in a warm bath in which she remained ten minutes. The bath was well borne. The paralytic phenomena still continue in part.

About mid-day the paralysis became less marked, and during the afternoon disappeared almost entirely; a feeling of extreme weakness alone remained. The pain in the head and the sensitiveness of the arm continued. The tissues immediately surrounding the places where the hypodermic needle had been inserted were swollen and painful on pressure.

At noon the temperature was 38.6° C. (101½° F.); in the evening, 38.3° C. (101° F.); pulse, 84; moist skin; moderate thirst. No difficulty in speaking; state of mind more cheerful. At 6 P.M. there began to be noticed spasmodic twitchings of the muscles of the arms, at first isolated, later more general. The patient herself drew attention to the fact that immediately after drinking an involuntary spasmodic inspiration occurred; this phenomenon she intentionally reproduced several times. The chest now expanded, just as it had done in the mild convulsion on the preceding night, and remained several seconds in the position of inspiration. The muscular movements became more marked. There was a slight feeling of constriction in the chest.

At 9 P.M. these convulsive phenomena ceased, and she fell into a sound and quiet sleep, out of which she awoke at 1 A.M., October 18th, in a severe chill. This lasted three-quarters of an hour, and disappeared after she had taken some hot drink. She slept no more during the rest of the night. No further paralytic or convulsive phenomena were observed. Late on the morning of October 18th occasional convulsive movements were noticed in the muscles of the arm. Patient complained of headache and photophobia. About 11 o'clock, without any special cause having been discovered, she suddenly came into a condition of very complete paralysis, ushered in by a feeling of extreme weakness. She was scarcely able to move a finger. With the eyes shut or half open she lay there quiet and motionless. To questions, she either made no reply, or did so, hardly moving her lips, in a voice almost inaudible. Respiration was very superficial. Temperature, 38.1° C. (100⅔° F.); pulse quiet and normal; skin moist. She recognized relatives who came to see her, but was unable to talk with them. This paralytic condition, after continuing an hour with undiminished intensity, disappeared completely in the course of the afternoon.

Redness and swelling had become more widely extended on the dorsal side of both forearms, and the skin in the upper two-thirds seemed erysipelatously infiltrated. Similar infiltrations, about the size of a silver dollar, existed in the lower extremities at the points where the hypodermic needle had been inserted. The patient avoided, as far as possible, all movement of the body, and especially of the arms. She had taken pills of aloes and pulv. glycyrrh. comp., and toward evening there occurred free catharsis. Since noon there had been developed, in addition to the pain in the head and neck, pain also in the sacral and dorsal region.

About 7 P.M. the subsultus began again, at first isolated, soon more general and severe. Attempts to drink aroused afresh the inspiratory spasms. After nine o'clock these occurred at intervals of two or three minutes. The subsultus was more severe, and there was greater uneasiness, thirst, and photophobia. In order to prevent further unfavorable change in the patient's condition, 0.03 (gr. $\frac{6}{10}$) curare was injected at 9.30 P.M., and it was ordered that, for the present, she should have nothing to drink. In fifteen minutes the effects of the curare were apparent. Her anxiety disappeared, she became once more cheerful and talkative; the subsultus ceased; the inspiratory spasms occurred less frequently, and in the course of an hour disappeared entirely. At midnight, in compliance with her earnest request, she was given something to drink. An inspiratory spasm occurred; and, just as had happened on the forenoon of October 18th, was immediately followed by extreme paralysis of voluntary movements. Respiration was only slightly affected—it became a little less energetic. The paralysis continued for an hour with unabated intensity, and then disappeared.

In the early morning of October 19th the patient slept three hours; a little later she complained of headache, pain in the abdomen (aloes), and sensitiveness to bright light; temperature, 36.7° C. (98.06° F.); pulse, 80. Subsultus was occasionally observed during the forenoon. Twice after drinking there was spasmodic retching.

At 4 P.M. the paralysis, already several times observed, again occurred, and it was also upon this occasion ushered in by a convulsion, which was the result of fright caused by a heavy thunder-storm. Two hours later patient was again in the condition in which she had passed the forenoon.

8.30 P.M.—Temperature, 37.0° C. (98.6° F.); pulse, 70. Having slept quietly from this time till 1 A.M. she was seized with a chill, which lasted half an hour, and was marked by severe chattering of the teeth. During the next few hours spasmodic retching occurred repeatedly after drinking. From five till six she slept quietly.

The morning of the 20th brought no change in her condition. Headache and occasional convulsive movements still continued, except during two hours while the patient was sleeping. In the afternoon there was slight headache, but no muscular tremor. She declared herself to be better than she had been at any time during the last ten weeks. Having taken since the 16th nothing but water and occasionally a little wine, she now, October 20th, ate bread and milk with relish. She attempted to read from a prayer-book, but discovered that she was unable to make out a single word; the letters seemed to move about in circles. The superficial redness and swelling of the extremities due to the hypodermic injections is diminishing.

With the exception of a chill, which lasted about ten minutes, the patient slept quietly nearly the whole night of the 20th and 21st, and on the following day her condition was very satisfactory. There was no pain; no sick feeling; the appetite was good; she was cheerful; in short, she complained alone of general weakness; a certain sensitiveness of the eyes to bright light, and a scintillation of the letters before her eyes whenever she read.

In the afternoon she ventured to get up, but was compelled, after a few hours, by a severe headache, to return to bed; cold compresses applied to the head relieved the pain. On the night of the 21st and 22d she slept quietly five hours, until one o'clock, when she had a short chill. After the chill had passed she again went to sleep, and awoke in the morning with moderate headache, which disappeared during the afternoon; otherwise she felt quite well.

Isolated spasmodic movements were observed in the fingers and arms. In the evening she received gr. viij. quin. sulph. The night of the 22d and 23d, passed without a chill, but the patient was kept awake by coughing, having sat by an open window upon the previous day and taken cold.

On the 23d and 24th there were isolated convulsive movements, and slight headache. On the 26th, only headache. She had, however, to contend with

an acute catarrh of the respiratory tract. After the 28th the catarrh gradually decreased.

From this time on the patient seemed rapidly approaching complete recovery. Her complaints now had reference especially to the sensitiveness of the eyes to light, to diminished power of vision, and to a general feeling of weakness. The healing of the wound on the foot progressed favorably, and on the 28th the wound was about the size of a silver half dollar.

Nov. 4th.—Patient complains of pains in the dorsal and sacral regions, of a tired feeling, of uneasiness, and of loss of appetite. The menses set in on the next day, the flow was slight and lasted but a few hours.

24th.—Angina faucium has developed, and to-day the patient remained in bed from general indisposition.

26th.—The angina is diminishing, patient complains of sacral pains.

27th.—Slight indication of the menses.

Dec. 3d.—The wound on her foot is completely cicatrized, and, her general health being good, she was allowed to leave the hospital and return to her home.

19th.—Patient returned to the hospital. In general, she felt well, but her former health and strength was not fully restored. She moved about slowly and without energy. The eyelids were often only half raised, and their movements were slow. She said that to read was difficult for her and made her very tired; that she could not see by lamplight, and that bright light was disagreeable to her eyes.

In January, 1875, she entered once more upon the duties of servant-girl. Further improvement in her condition was very slow; she was somewhat anæmic. The menses stopped completely; fluor albus appeared, and it was not until six months later that the menses became regular again. Finally, only a slight fluor albus and a dull expression in the eyes remained. Although, when she left the hospital, her fear and anxiety in reference to hydrophobia had departed, they were again aroused by the thoughtless assertions of friends, that it was possible for the disease to relapse. Her unhappiness was still further increased by the fact that a young man, toward whom she entertained the tenderest feelings, was induced to cease his attentions through fear of a renewal of her malady.

In January, 1877, I received from her a letter informing me that she no longer felt any uneasiness, and that for several months past she had enjoyed the most perfect health.

A CASE OF OPIUM HABIT CURED BY GALVANISM.

By WILLIAM F. HUTCHINSON, M.D.,

PROVIDENCE, R. I.

About the first of January of the present year, I was requested by Dr. O. C. Wiggin, of this city, to see with him a lady supposed to be suffering with cerebral congestion in an advanced stage.

A visit to Mrs. S. revealed the following history: Age 39, married; one child aet. six, and has had one miscarriage. Weight, about 150 pounds, and general appearance of contour and skin good. Patient kept up a low moaning, answering most of my questions intelligently, then relapsing into a semi-unconscious condition. Pulse 100, compressible. Temperature 99°. No loss of control of evacuations. Conjunctivæ congested, and pupils contracted closely. Perspiration starts upon the smallest exertion, which also causes pain in abdomen and excites vomiting, which has lately become persistent, accompanied with intense thirst. Hands and feet cold, with shrivelled palms and plantar surfaces. No difference in temperature of head and axilla.

Ophthalmoscopic examination gave retinal and choroidal congestion, with venous enlargement, slight optic neuritis, and choked disk.

There was constant pain, and sense of fulness in frontal region.

The only family history that could be obtained bearing upon the case was the death of one sister a year ago, from acute brain inflammation, the remainder of the immediate family being still living and in good health; and the present condition appeared to be the culmination of six years of almost constant pain and general nerve exhaustion, following the birth of the child, aggravated by the subsequent miscarriage.

At this visit no suspicion was entertained by me of any opium habit, and the case was diagnosed as passive cerebral congestion, dependent upon general neurasthenia.

The next day Dr. Wiggin called and gave me the following additional items, which at once placed the case in its proper light, and gave the key to many of the symptoms before cited. After her confinement, which was a long and painful one, she suffered severely from wandering pains in back and hips, for which her attending physician at the time ordered tincture of opium applied externally, giving at the same time ten drops by the mouth, and the ground was broken for the building of the habit. The dose steadily increased until she came under the charge of Dr. Wiggin, some six months previous to my seeing her, when she was taking four ounces of laudanum daily internally, besides continuing external applications as before. Attempts were made to stop the pernicious habit, but it was too late for wise counsel to avail, and the usual cunning of opium-eaters procured for her the drug in spite of every effort of both husband and physician.

All forms of concurrent medication had been faithfully tried, but nothing was of use except the opium, to which it became absolutely necessary to resort occasionally, as, without it, the poor lady would arouse the neighborhood with agonizing screams and cries.

At this juncture, and as a forlorn hope, it was decided to essay galvanism, hoping that its great vitalizing power might aid in restoring tone to the exhausted nerve-centres. At my suggestion Collis Browne's chlorodyne was given in place of laudanum, and produced the same effect with an ounce per diem that the four ounces of the former had done.

Central galvanism was applied with a twenty-four cell Bartlett battery, using six cells from the cilio-spinal centre to the forehead with a downward current; then from the cervical vertebræ to the solar plexus with an ascending current, each lasting six minutes, or until the skin was thoroughly reddened under the negative carbon point. For the first few days applications were made morning and night. In a week the vomiting had ceased and consciousness returned, and the evening sitting was omitted. After a month the dose of anodyne was gradually decreased, but with every diminution the nausea returned, and nothing but a return to the old dose would avail. But her condition was very much improved. She slept better, the eyes were normal as to color, and the palms were no longer dry. At the close of the second month she was able to sit up, and the dose of anodyne

dyne was steadily cut down without the patient's knowledge, by adding to the chlorodyne a sufficient quantity of flavored treacle to replace each dose taken, until at that time an ounce would last three days.

Her general condition was greatly improved, and she began to take some interest in her surroundings. In two months more she commenced to go out, and came to my office for treatment when I changed the current to the Siemens and Halske cabinet cell, which, with its low tension and perfect capability of control, I regard as the ideal battery for central galvanism. There was no further trouble, and to-day, June 21st, the lady is quite well, attending to all her household duties, not having tasted opium in any form for seven weeks, and expressing unbounded delight at being free from the terrible habit which had so long been her master.

The *rationale* of the action of galvanism in this case is difficult to fully understand. When the circuit was closed over the superior cervical sympathetic ganglion, Dr. Wiggin and myself distinctly observed a sudden wavelike contraction of the distended retinal veins, which resumed their size in a few moments after the stimulus was removed. But, after some weeks' treatment, these veins became normal, and the intraocular congestion had disappeared *pari passu* with the cerebral symptoms, and having repeatedly witnessed the same phenomenon in other cases, I am led to believe that the galvanic current has a direct tonic influence upon the vaso-motor system, which accounts for the occasional surprising results obtained in cases of cerebral congestion. With the advent of increased nerve circulation came an absolute horror for the drug, and it is not easy to know to what to attribute the increase of strength of will up to the point of totally dispensing with it of her own accord, unless it be to some change in mental power, due to increased nerve tone, the direct result of what I have before termed the vitalizing power of the galvanic current. Faradism was not at any time employed.

Dr. Wiggin gives full credit to the special treatment for the cure of the case.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL.

Observations in General and Cerebral Thermometry in a Case of Tumor of the Brain.

(Prepared for The Medical Record.)

By CHARLES K. MILLS, M.D.,

Neurologist to the Philadelphia Hospital.

In the *Philadelphia Medical Times* for March 29, 1879, is published an account of a case of tumor of the brain, which was presented to the Philadelphia Pathological Society. Observations in general and cerebral thermometry were made on this case, but were not included in the paper. In the present communication I will give these, with a few remarks. The following is a brief history of the case, condensed from the published account:

The patient was a white woman, aged thirty-five years, who in 1875 had secondary syphilis. During 1876 she suffered with vertigo and headache. In January, 1877, after an attack of terrible headache, she became paralyzed on the left side. In January, 1878, she had marked left facial paralysis, the upper as well as the lower fibres of the nerve being affected. The left arm and leg were paralyzed. She had also left internal strabismus. Farado-contractility was retained, but lowered, on the paralyzed side. Sensibility was diminished in the left leg only. Hearing was impaired on the left side; taste was preserved; smell was defective. She was excitable and irritable. She had full control of her bowels and bladder at this time. The right half of the body gave no evidences of true paralysis, but she seemed a little deficient in strength in the right arm and leg. She improved under the use of iodide of potassium. On the 26th of August, however, she began to suffer with headache and vomiting. On the 29th she became semi-conscious, and lost control of her bowels and bladder. She perspired very freely. On several occasions, after August 30th, right unilateral sweating was observed. At this date, August 30th, her left eye began to inflame. Dr. E. O. Shakespeare, early in September, noted that she had paralysis of the orbicularis palpebrarum and external rectus, and great congestion of the bulbar and palpebral conjunctiva, with a mucoflocculent discharge. The conjunctiva and cornea were insensitive, and there was necrosis of the lower part of the latter. The right eye presented a normal appearance, its movements being unimpaired. Vision, as roughly tested, was good in this eye. She had perception of light in the left eye. The ophthalmoscope showed atrophy of the right optic nerve. The fundus of the left eye could not be seen. When she passed into the semi-conscious state, on the 29th of August, the left motor paralysis became more pronounced. Early in September she had some difficulty in swallowing; and on several occasions during the same month she had spells of slight convulsive twitching or spasm of the muscles of the mouth, and of the hands and arms. For four weeks she remained in a low, helpless condition, sometimes rallying a little. Some paralysis seemed during this time to take place on the right side of the face and body. On September 27th she showed signs of amendment, but complained greatly of pain in the left arm and leg. She continued somewhat better for four weeks, but varying considerably in her mental and physical condition from day to day. On the 30th of October she became much worse, losing power on both sides of the body, and having involuntary passages. From this time she sank, and died November 18, 1878.

On post-mortem examination, just in front of the optic chiasm the ends of two hard, pinkish-white nodules were seen, constituting what might be termed a twin-tumor. These masses were cuboidal in shape, and of about the same size, the sides of each measuring about two-thirds of an inch. They extended across the median line. They apparently more or less involved, in their growth, the basal termination of the corpus callosum, the peduncles of the corpus callosum, the lamina cineria, and anterior perforated spaces. They also probably encroached upon the roots of the olfactory nerves, the optic nerves and commissure, and the anterior portions of the circle of Willis, which seemed to have been broken in front. The base of the brain, from the posterior line of the tumor backward to the pons, was markedly softened; the softening included the visible portions of both crura cerebri, the inner portion of the floor of the right Sylvian fissure, and the inner two-thirds of the island of Reil.

A specimen from the tumor was examined by the

Committee on Morbid Growths of the Pathological Society, who reported it to be a syphilitic new-formation (gumma).

The temperatures were carefully taken, in the right and in the left axilla, from August 30th to the date of her death, November 18, 1878. They are given, for both morning and evening, in the following table:

		Morning.		Evening.	
		Right axilla.	Left axilla.	Right axilla.	Left axilla.
August	30....			101.5°	101.6°
"	31....	100.6°	100.5°	100	100
September	1....	99.6	99.8	99.9	99.9
"	2....	99	98.8	99.9	100
"	3....	99.5	99	99	101
"	4....	100.6	100.5	102	102
"	5....	101.5	101	101.8	100.4
"	6....	101.2	101.4	100.6	100.5
"	7....	100	99.8	100	100.6
"	8....	98.6	99	100.6	100.5
"	9....	100.6	100.4	100.6	100.5
"	10....	100.5	100.4	100.4	100.2
"	11....	99.5	100.2	101.3	101.3
"	12....	100	100.6	101.4	101.4
"	13....	99.8	99.9	100	100
"	14....	99.7	101.4	101	101
"	15....	100.5	100.5	100.5	100.4
"	16....	100.4	100.4	100.5	100.4
"	17....	100.6	100.3	100.3	100.2
"	18....	100	100	100	100
"	19....	99.8	99.7	100.4	100.4
"	20....	100.4	100.3	102	102
"	21....	101	101	101	101
"	22....	101	101.4	101	101
"	23....	101.5	101	101	101
"	24....	100.5	100.5	102.2	102
"	25....	100.5	101.5	101.2	101.3
"	26....	100.5	100.6	102	102.1
"	27....	99	99	99	99
"	28....	99	99	99	99
"	29....	98	98	98	98
"	30....	98.5	98.5	101.2	101
October	1....	98.6	98.6	101.4	101.8
"	2....	100	100.2	101.6	100.2
"	3....	100.5	100.6	101.5	101.4
"	4....	100.3	101	100.1	100.7
"	5....	98.5	98.5	100	100
"	6....	99.5	99.2	101	100.5
"	7....	98.6	98.6	100	100.7
"	8....	98.4	98.7	100	100.6
"	9....	99.6	100.5	100.2	101
"	10....	99	99	100.5	100.5
"	11....	99.7	100	99.6	100.4
"	12....	99.8	99.8	100.6	100.5
"	13....	99.7	100	100.1	100.7
"	14....	98.5	99.5	99.5	100
"	15....	99.3	100	100	100.7
"	16....	98.6	98.5	99	100
"	17....	98.5	99.5	99	100.5
"	18....	99	99.5	99	99.6
"	19....	99.4	100	100	100.5
"	20....	99	99.6	99.6	100.2
"	21....	99	99	99.5	99.4
"	22....	97.7	98	99	99
"	23....	98.5	98.5	100	100.5
"	24....	99	99.5	102	102.6
"	25....	99.6	99.8	100.6	101
"	26....	99.5	100	100	100.5
"	27....	99.5	100	101	101
"	28....	98	98.5	100	100.7
"	29....	100	100.4	101	101.5
"	30....	100.5	101	101.6	102
"	31....	99.7	100.5	101.1	101.5
November	1....	99	100	102	102
"	2....	100	100.5	100.6	101
"	3....	98.6	99.6	99.5	100
"	4....	98.5	98	99.6	100.6
"	5....	96	96.5	99	97.6
"	6....	95.5	96.5	98.5	98.5
"	7....	96	96	97.7	97
"	8....	95.5	97	96.6	97.5
"	9....	96	95	97	96
"	10....	95.5	96	97	96.5
"	11....	97	98.5	98.5	98
"	12....	97.5	97	97	99
"	13....	96.5	97.5	95.5	97.5
"	14....	99.5	99	99.5	100
"	15....	98	97	99.8	99
"	16....	94	96	98	96
"	17....	99	99.6	99.4	98
"	18....	103	104		

I will recapitulate the prominent points brought out by this table.

Observations were made on eighty-one days; eighty records were taken for each axilla in the morning, and eighty for each in the evening. The evening temperature was usually higher than that of the morning; in only twenty-one instances was the latter higher than the former. On forty-four days the morning temperature was higher in the left axilla than in the right; on nineteen it was higher in the right than in the left; on seventeen it was the same in both. On thirty-six days the evening temperature was higher in the left axilla than in the right; on twenty-two it was higher in the right than in the left; and on twenty-two it was the same in both. The following are the averages of the different observations for the entire time:

	Right Axilla.	Left Axilla.
Morning	99.1°	99.4°
Evening	100 °	101.4°

During the two days of August, the whole of September and October, and the first three days of November, the temperature usually ranged between 99° and 101°, only occasionally going above or below these figures. After November 3d, until a few days before her death, it was on both sides almost constantly below the normal; toward the last it again began to show an upward tendency. On several days the fall of temperature was very remarkable; on the morning of November 9th, for instance, it was as low as 93°, and on the 16th as low as 94° in the right axilla; on a number of occasions it was 95° and 96°. On November 18th, the day of the patient's death, it shot up from 99.6° to 103°. The temperature was taken in each axilla half an hour after death, and was found to be, in the right, 107°; in the left, 106°.

I will next give the observations in cerebral thermometry. Broca, in 1877, made some investigations into head temperatures (*Progrès Médical*, 1877, and *Lancet*, October 20, 1877). In the New York *Medical Journal* for August, 1878, Dr. Landon Carter Gray published a paper on "Cerebral Thermometry," read before the American Neurological Association June 20, 1878. An abstract of this paper appeared in the *Journal of Mental and Nervous Diseases* for July, 1878, and the article in full was reprinted in the same journal for January, 1879. In the *Philadelphia Medical Times* for January 18, 1879, I published a communication read before the Pathological Society of Philadelphia, on a case of tumor of the frontal lobe of the brain. This, in addition to some axillary observations, contained investigations in cerebral thermometry. The case was, I believe, the second on record in which the thermometer had been used to locate a cerebral growth, the first being given in Dr. Gray's paper.

The stations selected for the observations were those given by Broca and Gray, as follows: Frontal stations on each side, somewhat back and above the external angular process of the frontal bone; parietal stations above each ear; occipital stations on each side of the occiput; anterior vertical stations just in front of the line of the fissure of Rolando; and posterior vertical stations just posterior to this line. The average distance of the fissure of Rolando from the junction of the nasal and frontal bones is put down by Gray as 6¼ inches.

A modified Seguin thermometer was employed. The observations were made late in the afternoons of seven successive days, with the valuable assistance of Dr. Brown, resident physician at the Philadelphia

Hospital. The results expressed in the Fahrenheit scale are given in the following table:

	Right frontal station.	Left frontal station.	Right parietal station.	Left parietal station.	Right occipital station.	Left occipital station.	Right anterior vertical station.	Left anterior vertical station.	Right posterior vertical station.	Left posterior vertical station.
October 29	96 8	94 1	100	1 95.9	96 4	94 1	97 7	94 1	97.2	94.6
" 30	98 6	94 6	99	92.3	97.7	97 7	97.6	95	97.2	93.2
" 31	96 8	94 1	97 7	95	98 1	95	96 8	93.2	96 8	94.1
November 1	96.7	94.4	96.8	95	95.9	97.2	95	94	95 9	95
" 2	99.5	95.9	99	94.6	99 9	96 8	99.2	96 8	98 6	94.5
" 3	96 8	94 4	95	91 4	95.9	93.7	95.8	92.8	95.9	95 5
" 4	95	95 9	95.9	91.4	96.5	91.4	97.2	92.3	95	93.2
Average temperat's	97 1	94 7	97 6	94	97	94 5	97	94	96.6	94.3

The temperature of the room during the observations ranged from 60° to 70°.

Before making any remarks upon this table, for the sake of comparisons and clearer study, I will first give some of the results obtained by Gray, and also briefly refer again to my former case.

The normal average temperatures, as determined by Gray, were as follows:

Left frontal station	94.36°
Right " "	93.71°
Left parietal "	94.44°
Right " "	93.59°
Left occipital "	92.66°
Right " "	91.94°
Left side of the head	93.83°
Right " "	92.92°
The whole head, exclusive of the vertex	93 51°
Motor region of the vertex	91.67°
The whole head, inclusive of the vertex	92.66°

In his case of tumor the temperatures at different stations were as follows:

	Left.	Right.
Frontal	96.75°	98.33°
Parietal	95°	99.75°
Occipital	96.75°	100.50°

The average of the left side was 96.16°; of the right, 99.52°; of the whole head, 97.84°.

On post-mortem examination, a soft, jelly-like tumor the size of a hazel-nut was found between the horizontal or posterior branch of the fissure of Sylvius and the first temporal fissure, while the whole of the right occipital lobe was converted into a colloid, extremely vascular mass, which gave way under examination; this degeneration also extending anteriorly to the tumor as far as the fissure of Sylvius. There was no apparent disease except at these points. The tumor was ascertained to be a glioma.

In my case of frontal tumor, reported in the *Medical Times*, the average temperatures of the different stations taken were as follows:

Middle frontal station	96.5°
" occipital "	95.5°
Right frontal "	95°
Left " "	94.7°
Right parietal "	94.7°
Left " "	94.4°

In Gray's case it will be seen that all the stations on the head showed a marked rise of temperature above the normal averages. In my former case the middle frontal and occipital stations—taken in the centres of the forehead and of the occiput—and the right frontal station gave decided elevations, the other stations showing a slight increase. In the present case we have for all the right-hand stations a striking elevation, the average for these being about 97°, against a normal average of about 92.9°, a difference of 4.1°. The average of the stations on the left side of the median line was 94.3°, only about .5° above the normal. In the three cases the temperatures of the right side of the head were much higher than those of the left; while in health, it is generally admitted, and has been determined by Broca, Brown-Séquard, Gray, and myself, that the left side gives a higher temperature than the right. Between the various stations on the right side, and also between those on the left, the variations of the averages are not very marked. The average of the temperatures taken at the right parietal station was, however, from a half to one degree higher than that of any other location, and the highest single record (100.4°) was obtained here. Between the lateral and vertical temperatures the differences were not great; the lateral were, however, higher. The rise of temperature on the right side was more positive over the anterior than over the posterior half of the head.

In this case, as in the others, surface thermometry, I think, afforded some aid to regional diagnosis. It assisted at least in excluding such regions as the occipital lobe, the cerebellum, and the pons varolii as probable seats of the growth. As I have remarked in my former paper on this case, it simulated in many respects one of tumor, or other limited lesion, in the anterior part of the upper half of one lateral region of the pons. The local cerebral temperatures, however, indicated a lesion low down in the right anterior half of the cerebrum. Autopsy revealed a tumor in the anterior portion of the brain, and one visible at the base, but it was located in the median line. The probabilities are, that it chiefly exerted pressure on the ganglia and internal capsule of the right side.

The bodily temperatures taken in the axillæ, during the week that these cerebral observations were made, ranged for the right axilla from 99.5° to 102°, averaging 100.7°; for the left axilla they varied from 100° to 102°, averaging 101.2°.

Progress of Medical Science.

On Melaleuca Paraguayensis and its Therapeutic Action.—At a recent meeting of the *Académie de Médecine*, M. Planchon read the report of the commissioner appointed to consider a paper with the above title, which was presented by the children of Aimé Bonpland as a tribute to the memory of the companion of Humboldt. Bonpland discovered in Paraguay a plant analogous to the melaleuca of Molucca, and instituted a series of experiments with it to determine its therapeutic properties. He made a tincture from its flowers and leaves, and extracted from the plant an active principle in the form of a resin. He found that these preparations possessed a decided sudorific action. He employed them in the treatment of rheumatism, gout, syphilis, yellow fever, and cholera, and believed that his observations were sufficiently conclusive to determine that the melaleuca is a valuable therapeutic agent.—*Le Courier Médical*, April 19, 1879.

A Monument to Pinel.—The initiatory steps have been taken in Paris towards the fulfilment of the desire long felt by alienists of all countries, that some enduring memorial should be erected to commemorate the humanitarian labors of the illustrious Pinel. The *Société medico-psychologique* appointed a special committee to consider the subject, and its report suggesting the erection of a statue of Pinel at the Salpêtrière was unanimously adopted. The *Conseil général de la Seine* has voted a contribution of $400 to the fund for the erection of the statue, and the municipal council of Paris, in which the medical element is strong, will probably do as much or more. The *Gazette des Hopitaux* has opened a public subscription list, in which it is hoped that American names will not be entirely wanting.

Changes in the Renal Epithelium in Bright's Disease.—In a paper read before the *Académie des Sciences*, M. Cornil has described a peculiar alteration of the renal epithelium, which he met with for the first time at the autopsy of an albuminuric patient last March. The patient had suffered from albuminuria not quite two months; during this period he had passed very little urine, and at times there had been almost complete anuria. He died in uræmic convulsions. Portions of the kidneys were treated with osmic acid, and when examined under the microscope, the greater part of the epithelial cells that had remained in contact with the walls of the convoluted tubules were found to present voluminous vacuoles, most of which contained a globule of albuminoid matter that had been solidified by the osmic acid. Often a cellule contained two or three of these vacuoles. The isolated cellules, with their cavities surrounded by protoplasm in which the nucleus could be seen, presented the aspect of the physalides of Virchow. The lumen of the uriniferous tubules whose cellules were affected contained large quantities of these globules, the substance of which was slightly tinged by the osmic acid, and presented a few fine proteic granules. The tubules were distended by these products. As the kidneys were greatly congested, there were also a few blood-globules in the capsules of the glomeruli and the lumina of the tubuli. M. Cornil thought there could be no doubt that these globules of albuminoid substance had been derived from the cellules, as epithelial cells with empty cavities were often met with. By combining and fusing together, the globules formed hyaline or colloid casts in the straight tubes.

In this case of Bright's disease, then, the renal epithelium elaborated in their protoplasm and discharged in the urine droplets of proteic matter, which could readily be seen by the help of osmic acid. This pathological function of the cells possesses considerable analogy with the secretion of mucus by the calciform cells of the digestive mucous membrane. In two other cases of Bright's disease, M. Cornil found in the kidneys, when treated with osmic acid, analogous lesions of the cellules, consisting in the development of small proteic masses in their protoplasm. Some of the uriniferous tubules contained also globules of albumen. The observations, however, are not yet sufficiently numerous to justify the deduction of a general conclusion. In the later stages of the disease the cells undergo fatty degeneration, but contain the proteic globules until they are disintegrated. M. Cornil found the same lesion of the cellules in a case of cystic kidney. The patient had died in uræmic coma. In this case the cysts were formed at the expense of the urinary tubules. In the dilated tubes that were in process of cystic transformation, the cells lining the walls presented in their interior vacuoles and globules of albumen. The cavity of the tubes was filled with globules that had escaped from the cells. M. Cornil states that the lesion can be recognized in fragments of the kidney treated with Mueller's fluid, but that it is rendered much more distinct by the use of osmic acid.—*Gazette Médicale de Paris*, May 3d.

Experimental Investigations on the Action of Inhaled Substances.—M. Schottelius reports the results of two series of experiments on dogs, which were undertaken with a view to determine the action of inhaled dust on the lungs. In the first series a single insufflation through a tracheotomy canula was practised, the substances employed being, in one set of cases, inorganic dry bodies, viz., vermilion, Berlin-blue, and magnesia usta, and in another set, dried and powdered organic substances, such as fæces, pus, etc.; in the second series the animals were compelled to inhale various substances for a prolonged period. The experiments with vermilion and Berlin-blue produced lesions resembling in many respects those of anthracosis pulmonum. The colored particles were found in the epithelium of the alveoli, in the lymph-canals and lymphatic glands, and later in the stellate connective-tissue cells. Here and there also, the pigment granules were found in the epithelium of the bronchi, and in the lymph-passages situated in the deeper layers of the bronchial mucous membrane. Dr. Schottelius could not demonstrate the existence of stomata leading directly from the lymph canals into the alveoli. These inorganic substances never excited any severe or destructive inflammation. On the other hand, the insufflation of the different organic substances, which, it must be noted, were all either already involved in, or ready to enter upon the process of decomposition, produced broncho-pneumonia with special tendency to ulceration.

In the second series of experiments the dogs were confined in large, well-ventilated boxes, and were made to inhale at regular intervals finely divided organic particles. One dog inhaled for an hour a day during eight weeks, the dissolved and atomized sputa of tubercular patients; another inhaled during the same period the sputa of non-tubercular patients; a third inhaled Limburger cheese rubbed up in water, and a fourth the brains of different animals. All the dogs when killed presented the same lesions: tubercle-like nodules in the lungs and pleura, which Dr. Schottelius divided anatomically into three groups. The nodules of the first group proved to be miliary hepatizations. Those of the second group were formed by accumulations of cells in the adventitia of large and small bronchi and of the blood-vessels, and resembled closely the inflammatory foci developed after insufflation of inorganic substances. The third group comprised nodules formed by the closure of small bronchi.

Dr. Schottelius claims that the similarity of the lesions in these cases proves that tubercular sputa is not the only substance which when inhaled will produce tuberculosis, and hence that it is not a specific infectious agent.—*Allg. med. Cent. Zeit.*, No. 33, 1879.

School Ventilation.—The subject of the better ventilation of schools is at length being agitated in London. There seems to be there, as with us, room for great improvement in this direction.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 9, 1879.

MEDICAL INSPECTION FOR SICK CHILDREN.

THE Medical Corps, appointed by the Board of Health to visit tenement-houses, inquire for, and give general directions—if need be, prescriptions—for the relief of sick children, is thus far doing its work satisfactorily and with good results.

The rate of mortality during the heated season, since the employment of such a corps of medical visitors, has not increased, notwithstanding the yearly increase of our population.

In the year 1877—that following the inauguration of the plan—the highest mortality for a single week in the months of July and August was 825; the next highest was 756.

In the year 1878 the highest mortality for any single week during a corresponding period was 820. The present outlook is, that the mortality for the months of July and August of this year will not exceed what it was for the years 1877 and 1878.

To show that notable benefit has followed the present plan of inspection, we give the mortality reached in corresponding weeks within the same months—July and August—for the years 1875–74–73–71–70 and 68. In 1875 the highest mortality was 934 and 939; in 1874, 824 and 861; in 1873 it was over 900 twice, and over 800 once; in 1871 it reached 820 but once; in 1870 there was one week in which it reached 980; and in 1868 the highest mortality reached in any single week during the same months was 1,142. All these were years in which the heated season was of average severity, and the inhabitants had an ordinary immunity from summer diseases. Besides, so far back as 1870, the population was nearly 100,000 less than at the present time. No increase in the rate of mortality for the year 1878 as compared with the year 1877, with a steady increase of population, is good evidence of itself that the work instituted by the Board of Health has not been barren of good results; but when the comparison is made with the rate of mortality for the years from 1868 to 1875 inclusive, this becomes much more apparent.

The figures we have given include the number of deaths from all causes; but, when the investigation was restricted to diarrhœal troubles among children, about the same proportion was found to exist. The work, then, which this medical corps is doing under the immediate supervision of the Board of Health, is of vital importance to the city, and should be well sustained.

THE RATE OF MORTALITY IN THE CITY OF NEW YORK.

IT will not be out of place in this connection to lay before our readers some of the influences which have a special tendency to increase the death-rate in the city of New York.

The statement has been made that in other cities—for example, in Brooklyn and in Philadelphia—the rate of mortality is far less than in New York; hence, the former, so far as human existence is concerned, are much more desirable localities in which to live.

Externally it may appear so, but the inner aspect of the subject, we think, proves that the city of New York is not altogether a whited sepulchre full of dead men's bones.

The rate of mortality in all the three cities mentioned has had for its basis the estimated population, and, of course, it is easy to understand that when estimation becomes over-estimation, the rate of mortality will correspondingly decrease.

When we look at the estimated increase in the population of the city of New York for nearly five years, it is found to be 6,000; while for the city of Brooklyn it reaches 86,000; and Philadelphia has reckoned her increase during the past three years as 84,000. These, however, are mere estimates; yet they are such as give for Philadelphia the lowest rate of mortality. But it must not be forgotten that the three years for that city embrace the Centennial, in which a large representation of the population of the world took up their abode within her borders.

Within the last five years there have developed within the city of New York certain improvements which render it very probable that its present population has been under- rather than over-estimated. For instance, our system of flats has made it possible for many, who previously were unable to be residents of the city, to now make their homes within its limits. Again, our elevated railways have undoubtedly kept among us as residents many who formerly visited us only for social entertainment or for business purposes. In the first place, then, the estimated population of a city may materially change the rate of mortality among its inhabitants.

In the second place, the rate of mortality for the city of New York is affected from a source which is

felt in Brooklyn and Philadelphia only to a very limited extent—namely, deaths among foundlings. This city has a foundling asylum, and to it are taken not only the city's own foundlings, but foundlings from Brooklyn, from Philadelphia, and from all parts of the United States, and that for the reason that no special provisions have been made in other places for this class of unfortunates. Every year about 600 foundlings die in the city of New York, and thus become a special source from which the rate of mortality for the city is increased.

In the third place, in estimating the rate of mortality, we must take into consideration the number of deaths which occur in county institutions. Between five and six hundred deaths occur annually in the public institutions belonging to Kings County, but they are situated outside of the limits of the city of Brooklyn. These institutions in the county of New York add their mortality to that which obtains in the city proper, and therefore exert a special influence upon the death-rate not felt by many other large cities in our country. More foundlings die in New York annually than in all the county institutions for the county of Kings, and the one increases the rate of mortality for the city of New York, while the other leaves the rate of mortality for the city of Brooklyn unaffected.

In all the public charitable institutions for the city and county of New York the mortality for the years 1876, 1875 and 1874 was in round numbers one-sixth of the total mortality for the entire city and county, which are one and the same with reference to mortuary statistics.

In the fourth place, death among emigrants is a special source from which the mortality of the city is increased. Sick emigrants are taken to Ward's Island, where about 100 die annually and are added to the city's mortality.

Again, New York is a rendezvous for certain classes which derive their support largely from the country and from other cities, and their habits and mode of living give rise to an abnormal degree of mortality.

Besides, New York has been regarded by some institutions within the borders of neighboring States as a sort of general receptacle for all that is diseased and likely to die early, after being shipped hither, and the alertness of the managers of some of our own institutions has been called into requisition to prevent themselves from being made the subjects of imposition.

From what has been said and the figures given we think it will not be difficult to see that New York is subject to special influences which tend to increase its rate of mortality, but which do not, at least to nearly such an extent, affect the rate of mortality in other cities.

The simple fact that the rate of mortality in the city of New York is higher than that in other cities is not positive evidence that other cities are healthier than is New York.

TRICHINOUS PORK.

The recent fatal cases of trichinosis in the city of Brooklyn, and the threatened action on the part of the British authorities to make stringent regulations in regard to the importation of American pork, naturally direct attention to this subject. From such facts and statistics as are at command to this date, the question stands as follows:

Professor Richard Heschel, of Vienna, recently said, that an examination of American hams had been made in North Germany to test how far they were infected with trichinæ. No particulars are given regarding the manner in which the search was made, but the results published state that one in from five to ten hams contained trichinæ, whereas the average in Westphalian hams was one in 2,000 to 2,500.

More recently two physicians at Chicago, Ill., Drs. H. F. Atwood and W. F. Belfield, made an examination for trichinæ among 100 hogs, and of these eight contained the parasite; some were badly infected, while others contained but few. This result, showing that twelve per cent. of hogs are infected with trichinæ, is an alarming average, for it indicates that every twelfth time pork is eaten probably the consumer partakes of trichinous meat. An examination, however, made in Chicago in 1866, showed that about two in 100 hogs were trichinous.

We are not at present prepared to accept such sweeping conclusions as the first two, for the following reasons. In the first place, no systematic investigation in regard to trichinæ in hogs has been made by competent men. Before this has been done, we do not wish to draw general conclusions derogatory to the porcine family throughout the United States.

Admitting the correctness of the Chicago examination, we decline to allow a single local investigation to be accepted as a standard. The very nature of this parasitic disease suggests that its existence is probably local and confined to certain districts. German hogs are troubled but little with trichinæ, and in England pigs are said to be free from this parasite; but probably careful examination would show its existence. It was in England that the *Trichina spiralis* was first discovered in 1833.

It is highly probable that, in some parts of the United States, trichinæ in hogs exist to a greater extent than in other localities, and it is, therefore, not just to select a single consignment, which probably came from one district, and from its examination deduce general statements.

Professor Heschel made all his observations upon American hams, and states that from 10 to 20 per cent. were infected with trichinæ. Drs. Atwood and Belfield, in the one hundred hogs examined in Chicago, did not find a single trichina in the hams, but met them in other parts of the bodies, particularly the "psoas muscle." On the other hand, in the two fatal

cases occurring in Brooklyn, the disease was contracted by eating uncooked American hams. Here are discrepancies showing that the microscopical examinations so far made are not satisfactory, and it may be suggested that those interested in the sale of pork, ham and bacon have systematic examinations made of the meat passing through their hands. This would probably lead to valuable results, and perhaps show that trichinæ in pork, hams, etc., do not exist to the extent the statistics we have given indicate. On the other hand, the parasitic disease might, in that way and to some extent, be localized.

As trichinous meat is rendered practically harmless by thorough cooking, we cannot condemn too strongly the practice, still prevalent among certain classes, of eating raw ham. The trichina is so little known in Europe, that it is possible only few who come from there here, and thus eat raw meat, are aware of the risk they run in continuing the practice.

The fact that this parasite is now constantly met with in the dissecting-room appears to indicate that the number of those who are involuntarily acting the part of its host is largely on the increase, while few are aware of the acquisition they have made. Fatal cases are so rare that they may be probably attributed to eating such samples of trichinous meat as are referred to by Leuckart, who counted 160,000 trichinæ in a single ounce. If we suppose a ham to be thus infected and six ounces to be eaten, nearly a million trichinæ would pass to the intestines; within forty-eight hours these would be sexually matured, and in six days afterward a countless brood of larval trichinæ would be set free. These, all boring and perforating the intestines in their attempt to migrate, would naturally give rise to serious, if not fatal results. Such cases are no doubt rare. More often the number of trichinæ is small, producing a larval brood that passes through the system without serious injury, and, becoming encysted, remain harmless.

In conclusion we repeat our suggestion that a more general and systematic examination of pork should be made at packing-houses, by those acquainted with and able to detect the parasite, and that the public, on their part, should avail themselves of the simple but effectual protection obtained by thoroughly cooking all preparations of pork when served for the table. The Board of Health of this city has applied several times for money with which to employ meat inspectors, but have, thus far, failed to obtain the requisite appropriation.

THE Royal College of Physicians of London have conferred the Baly Medal for Physiology upon Charles Darwin.

REFERRING to the not unfrequent habit of giving to deceased parties titles to which they have no claim, the *Medical Press and Circular* quotes the lines of Pope put into the mouth of a dying lady of fashion:

"Narcissus! give this cheek a little red.
One would not be quite hideous when one's dead."

Reports of Societies.

WEST CHICAGO MEDICAL SOCIETY.

Regular Meeting.

DR. NORMAN BRIDGE, PRESIDENT, IN THE CHAIR.

THE PRESIDENT exhibited a new obstetric forceps, the invention of DR. JOHN BARTLETT. It was for use in high positions of the head, and to make traction in the direction of the axis of the superior strait. Dr. Bartlett claimed that it would accomplish direct traction in a much simpler way than the forceps of Tarnier. It resembled somewhat the forceps of Dr. Hobbs. In construction, the striking peculiarities were a long straight shank, with its two parts placed one in front of the other, instead of side by side; the shank leaving the blades at a more acute angle than was the case with most forceps heretofore in use; the handles being parallel to the axis of the blades, and long and strong. It was, in the view of the inventor, a fact of some moment that as the axes of the handles and blades were parallel, the obstetrician could always know the exact direction in which he was making traction by noting the direction of the handles. By this instrument direct traction could be made without forcing backward the perineum.

DR. H. M. LYMAN did not regard the instrument as a valuable addition to the armamentarium of the obstetrician. It was too awkward, and the handles were placed so far in front of the blades (above them), that although parallel to their axis, it must be difficult in using them to know just where the blades were, and what they were doing.

DR. BOTTSFORD thought the instrument might be a useful one, but that it would profit by the addition of the saw handle of Dr. Hobbs's forceps.

FRACTURE OF THE NECK OF THE FEMUR—ABILITY TO WALK.

DR. E W. LEE detailed the history of a case of fracture of the neck of the femur, the patient being able to walk about after the injury. The patient was a boy of eleven years, who caught cold skating on Christmas day, walked home, and was sick next day, and in two or three days was obliged to go to bed. There was fever, painful joints, the knees and left hip particularly being involved, and the attendant supposed him to have acute rheumatism. The case failing to improve, Dr. Lee was called January 23d, and found pulse 140, hot moist skin; there had been profuse night sweats; the hip was swollen, and great pain was caused by the slightest motion. The knee was raised on a pillow; it was painful, but not swollen or tender. To appearances, there was inflammation of the hip-joint. Cinchonidia, morphia, to quiet pain, and hot fomentations locally were ordered. In a few days the boy could sit up in a chair. The hip was still painful and swollen. Dr. Lee then determined to examine the case more fully. On the patient assuming the recumbent posture with both legs straight, he was surprised to notice that the limb of the painful side was one and a half inches shorter than its fellow. He then anæsthetized the patient, and made, with Dr. Parkes assisting, a thorough examination of the joint, with the result of finding an unmistakable fracture of the neck of the femur. It was ascertained afterward that on Christmas day the boy had fallen upon the ice a distance of six or eight feet—a fact he had denied; that he had walked

home, a distance of several blocks; that he had been about the house, gone on errands to the market, and played upon the door step the second and third days after the injury, and before he had been obliged to take to his bed. There had been no sudden giving away of the hip joint, but he had got gradually worse, till he was obliged to keep the recumbent posture. Great pains had been taken to ascertain accurately the history, and Dr. Lee felt sure the facts were as he had stated them. That the boy had walked about after the injury as stated, was vouched for by numerous reliable witnesses.

He thought it not unlikely the case had been complicated early by acute rheumatism, but the theory of the trouble of the hip was that an impacted fracture had been sustained which had not become disengaged during the time the patient was walking about.

On making extension of the limb, the appearance of swelling about the hip had almost wholly disappeared, showing that it must have been due to the thickening of the muscles incident to their contraction.

SPLINT FOR FRACTURED THIGH.

Dr. Lee next exhibited a splint, of his own device, for treating fracture of the thigh. It consisted of a firm continuity of wood posteriorly, the entire length of the limb—and more, a fixed foot-piece, projecting from the lower extremity, and above this a movable foot-piece taking its motion and attachment from the first by means of an adjustable screw; numerous parallel strips of thin splint material, an inch wide, fastened to canvas and attached to the upper end of the splint in such a way as to easily surround the thigh, inclosing it firmly. This part of the apparatus was about a foot long, and fitted the thigh accurately. Counter-extension was secured by pressure upon the conical form of the thigh by this wood socket—simple tapes being used to tie it firmly about the limb. Extension was made by adhesive straps attached to the thigh below the seat of fracture and fastened to the movable foot-piece, the force being adjusted by the screw connecting the two foot-pieces. The splint was to be properly padded with cotton, No pressure against the perineum was required. The apparatus was very convenient, as the patient could be easily moved about without danger of displacing the fragments. It was a labor-saving machine for the surgeon; he knew of no splint that gave such good results with so little trouble to the surgeon. He averred that he had treated with it several cases, in both children and adults, in which recovery took place without a particle of shortening.

Dr. Tagert referred, in the discussion, to a case he had treated of a man of fifty, who had fallen from a street-car, and fractured the neck of the femur. He walked ten blocks after the injury, and no shortening occurred till two weeks afterward, when it suddenly appeared and reached the degree of two inches.

ULCERATION OF THE FACE IN A CASE OF SCARLATINA.

Dr. Bridge reported a case of extensive ulceration of the face in a case of scarlatina. The patient was two years and four months old. He first saw the case during desquamation, and two weeks from the beginning of the sickness. The case appeared to have been a severe one; the throat was considerably swollen, but contained no ulceration, nor was there any tendency to the formation of abscess at the angle of the jaw. An ichorous fluid was flowing from the nose, and this, with the odor, suggested a diphtheritic complication. The face was involved in erysipelas, which did not extend to the sides of the neck. Both eyes were closed by the swelling, the left most firmly. On the external surface of the left under eyelid was an ulcer, measuring one-half by three-quarters of an inch, quite deep, but not involving the border of the lid. The eye was not inflamed or injured. The erysipelas soon disappeared from the face, and the general condition improved for a time, but the ulceration continued, and the child died two weeks later of exhaustion. At death the ulcer had become a deep slough, measuring laterally two and a half inches, and two inches vertically, but it had not invaded the border of the eyelid; it had destroyed the integument of a considerable portion of side of the nose and cheek.

The Society then adjourned.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular Meeting.

Dr. H. P. Merriman, in the Chair.

THE MANAGEMENT OF THE THIRD STAGE OF LABOR.

Dr. De Laskie Miller read a paper on this subject. He thought too little attention was usually paid to this, what he believed to be the most important stage of labor. Practitioners were too much in a hurry to cause the completion of the process of expulsion of the placenta. Time was important—time between the uterine contractions which detach the placenta from the walls of the womb—to enable small coagula to form and plug up the orifices of the uterine sinuses. It was improper to hasten the expulsion of the placenta by kneading the uterus into immediate contraction. When the uterus as slow to contract and expel the placenta time should be allowed, provided no serious hemorrhage occurred; the detachment from the uterine walls should be accomplished by the unaided efforts of the organ itself.

Too sudden and forcible delivery of the placenta exposed a patient to danger of post-partum hemorrhage, and to retention of blood in an imperfectly contracted uterus, which might decompose and cause both severe after-pains and septicæmia. He queried whether this was not a cause of the so-called "milk-fever." He thought subinvolution of the uterus might result from the bad practice referred to. The chief obstetric value of ergot was in the third stage of labor; he thought it should rarely if ever be used in the second stage.

The placenta should be delivered from the uterus after its detachment by bringing down its border with the finger, never by traction upon the cord. When inertia of the uterus occurred without hemorrhage, give time and restoratives; if serious hemorrhage occurred, introduce the hand and deliver the placenta and secure contraction. Irregular contraction, as that of the hour-glass variety, might best be overcome by moderate force applied continuously, and if the placenta was adherent it should be separated by the hand and delivered as soon as diagnosed.

Dr. Raler objected to the practice of using disinfecting injections during the first twelve hours after confinement. Fresh wounds would absorb septic matter, but in a few hours a glazing of the wound surfaces appeared which protected them from absorption. Injections would wash away this glazing material and thus make absorption more likely to occur.

Dr. Dudley believed in using hot-water injections

into the uterus in every case. It was very useful in case of hemorrhage and removed clots. He referred with favor to the use of hot injections of carbolized water every four hours to protect the parturient canal from absorption of poisonous matter.

Dr. T. D. Fitch thought milk-fever resulted from mammary congestion; that after confinement a free evacuation of the bowels should be early secured; that in the third stage of labor it was proper to press upon the uterus, rather upward than downward, and to make traction upon the cord.

Drs. Nelson and Jones always watched closely the womb for at least an hour after labor, to make sure of firm contraction.

The Society then adjourned.

CHICAGO MEDICAL SOCIETY.

Regular Meeting.

Dr. E. Ingals, President, in the Chair.

TUMORS OF THE LARYNX.

Dr. D. W. Graham reported a case of tumor in the larynx in a girl eight years old. He had treated the child some months previously; had lost sight of her, and knew nothing further of the case till called to make a *post-mortem* examination. He had first seen her two years previously, and had last treated her in the November preceding. There was no evidence of a hereditary taint except as shown by the appearance of venereal warts on the person of a younger brother, whom Dr. G. had treated. Aphonia appeared when the child was three years old, and had persisted to some degree until her death. There were no other symptoms; the general health appeared good. Iodide of potassium was given to some extent, but with no particular effect. The history given of the closing days of the case by the friends was, that about a week before death dyspnœa came on for the first time. It did not exist to an alarming degree, and nothing seems to have been done for it. Half an hour before death a fit of severe dyspnœa came on, which persisted until from its effect life was extinct.

Large papillomatous growths were found above and below the vocal cords, covering a large part of the surface of the mucous membrane of the larynx and obstructing considerably the glottis.

There was found just below the cords a mass of quite tenacious mucus, of a size sufficient, in the event of its engaging in the glottis, to seriously obstruct respiration. Dr. G. believed this mass of mucus to have been the cause of the final fit of dyspnœa; that it was thrown by a coughing effort against the vocal cords and abbreviated greatly the breathing space, and thereby induced the strangling.

TUMORS OF THE VOCAL CORDS.

Dr. E. F. Ingals read a report of two cases of tumor of the vocal cords which he had removed by operation.

Case I. was of a seamstress, twenty-three years old, who complained of hoarseness and some pain at times in swallowing. The larynx—including the vocal cords—was congested; and a small tumor, slightly pedunculated, was found attached to the under surface of the left cord, near its anterior extremity. Astringent powders were applied, and soon the congestion disappeared and the tumor grew less. The larynx was very intolerant of instruments.

Repeated attempts were made to seize the tumor with McKenzie's tube-forceps, with blades opening antero-posteriorly, but it was not possible to pass the blades between the cords and reach the tumor, so near was the latter to the anterior commissure. Then that part of the tumor which reached above the cords was grasped by the same instrument, the blades being turned so that they opened laterally; it was crushed, and a part of its covering was brought away. In three days there was nothing apparent at the site of the tumor but a slight prominence. In ten days the cord was normal, as was likewise the voice.

Case II. was a fibro-cellular tumor on the right vocal cord of a woman of twenty. She had had hoarseness for over a year, it having commenced in a cold. There was occasional dull pain in the larynx. The patient had received a great deal of treatment for laryngitis. A small tumor was found growing from the under surface of the right cord, near its anterior extremity. It measured at its base "about six millimetres," and at its apex half as much.

During ordinary respiration the epiglottis hung so far backward that only a part of the glottis could be seen by the laryngoscope. On uttering a high-pitched "*a*" tone the tumor projected above the cord. In this case it was impossible to grasp the tumor with the forceps opening antero-posteriorly. Accordingly it was grasped during phonation with the blades opening laterally, and most of it was torn off. It was soft—indeed, semi-fluid. Five days later only a swollen spot on the cord told of the location of the growth, and a week later this was gone. The voice was then normal.

NEW INHALING APPARATUS.

Dr. F. H. Davis made some remarks on the local treatment of bronchial and pulmonary diseases, and exhibited to the Society a simple and cheaply made inhaler which he had designed. It consisted of a tin vessel of the shape and size of a small dinner-pail, into which another and smaller vessel, bottom side up, fitted, the bottom of the latter having a broad flange, so that it acted as a cover for the larger one. This flange was perforated. A short tube of tin an inch in diameter projected from the centre of the cover, to which was connected a rubber tube nearly or quite an inch in diameter, through which the patient inhaled. By a set of sensitive and free rubber valves in the tin tube the patient was enabled to inhale from the inhaler and exhale into the atmosphere without letting go the rubber tube. Into the inhaler it was Dr. D.'s habit to put half a pint of boiling water, to which was added the medicament. Inhaling through the tube the air was compelled to pass down through the perforations and up through the fluid.

He was satisfied that in most inhalers the tubes were too small in diameter; they obstructed respiration, which was a disadvantage.

UNUSUALLY LATE CHLOROFORM ASPHYXIA.

Dr. F. C. Hotz reported a case under the above title. It was rare for any serious accident from chloroform anæsthesia to occur except during or immediately following its administration. According to Turnbull, in only 10 deaths out of 160 from chloroform did death occur *after* the anæsthesia. The case he was to report was one where a small dose of chloroform was given for a short operation.

T. J., æt. 8, was perfectly healthy. He was brought for an operation for convergent strabismus. Having eaten nothing since morning, he was, at 3 P.M., chloroformed, an Allis's inhaler being used. In five minutes he was anæsthetized, and the operation was

proceeded with, the inhaler being withdrawn. One eye was operated upon, and Dr. H. had commenced that upon the other, when the boy suddenly began to hiccough and become dusky in the face, and the pupils became widely dilated and fixed. The tongue was drawn forward, the foot of the table was elevated, and artificial respiration, "by rhythmic compression of chest and abdomen," was practised. The hiccough soon stopped, the lividity grew less, and the pupils became movable, and the table was then brought to the level. The hiccoughing immediately returned. The table-foot was again elevated, and the operation, in this position, was finished. In ten minutes the boy became conscious. No nausea occurred.

It was found that only about 30 minims of chloroform had been used, and, by chemical tests, that the article was pure.

In an experience of fifteen years this was the first instance of a short and regular narcosis assuming a serious aspect at a time when the anæsthetic had been discontinued for a number of minutes, and when the patient is usually regarded as out of danger.

THE CHIROPODISTS.

Dr. Edmund Andrews read a paper on the above subject.

From a condition of the most ignorant of itinerant quacks, and the most disreputable in their deception practised upon the people, the corn-doctors had, many of them, settled down to permanent residence in communities, and seemed to be trying to develop a creditable specialty. He thought they might attain, by more science and wider knowledge, a position like that of the dentists, with a specialty as legitimate and well-defined.

There were hardly any books or other literature on the subject of their art in the hands of the chiropodists; they were obliged to learn of each other, and not from books. There was quite a literature touching on corns and bunions, and other disorders of the feet, scattered through our medical and surgical writings; but it was very difficult to gather it up, and, it should be confessed, it was of a disgracefully poor quality. Surgeons of world-wide fame had, when touching upon this subject, displayed gross ignorance of pathology. He thought it would be proper for the chiropodists to extend their practice to such disorders as talipes; but as yet they were wholly incompetent to treat such cases. Corns furnished nineteen-twentieths of their business. Our own books were contradictory as to the definition of a corn. Two growths were confounded under this name. One was a chronic inflammation of the skin, with thickening of the cuticle, and should be called simply a callosity. The true corn resembled a wart on the hand. "The irritated derma sends upward from one to several elongated vascular papillæ, exactly like the minute finger-like papillæ constituting the framework of a wart." There was thrown out about these papillæ "a nodule of hard cuticle, whose circumference merged into the callosity of the adjacent inflamed skin. The pressure of the faulty boot sank the whole mass into the skin and subjacent tissue, so that the bed of the corn was concave. The small mass of horny cuticle surrounding the little column of papillæ was crowded, like a conical nail, into the flesh, while the adjacent callosity spread out like the head of the same. Hence, if a corn was taken out at this stage, there remained a conical-pointed cavity, "and in the central spike may be found papillæ and blood-vessels." Pressure might destroy the papillæ; and "sometimes the apex of the funnel was occupied by a little cavity containing serum and pus." The art of the chiropodists consisted chiefly in paring the callosities and digging out the central spike, and then obviating further pressure. Their instruments were peculiar. Some had small, chisel-shaped knives, the edges running obliquely across the instrument, and the paring was done by a lateral movement. Some chisels had semi-circular edges. Some operators used narrow and blunt scalpels. "After the corn was removed, a piece of thick, soft buckskin, with a hole in it, is applied around the cavity, and retained by means of diachylon or adhesive plaster. The corns would return in one to six months.

One chiropodist had invented a new operation for ingrowing nails. With the view that the difficulty was overgrowing flesh, and not ingrowing nail, nothing was done to the nail itself; but, at a little distance from the border of the latter, a lanceolate piece of flesh was removed, and the edges of the wound brought together with sutures. The healing in that position drew the overspreading flesh from the border of the nail, and the cure was complete. He thought that operation was one with many sensible features.

The Society then adjourned.

Correspondence.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS.

To the Editor of The Medical Record.

Dear Sir:—At a recent meeting of the Pathological Society, Dr. Beverley Robinson, in some remarks upon sudden pulmonary œdema, suggested that it was an accident which might occur during the operation of thoracentesis, and determine a fatal issue to this operation.* It seems to me unnecessary to suggest *possible* causes for sudden death under these circumstances, when *the* cause is so obvious. It is established that, in normal conditions, the expansion of the thorax during inspiration necessarily determines traction outward on all the contents of the thoracic cavity; on the heart, therefore, as well as on the lungs, and in the same direction. This direction coincides with that assumed by the walls of the heart during cardiac diastole, and is directly opposed to that of the same walls in systole. The effective force of each ventricular systole is, therefore, diminished by the opposingly directed force of inspiration. Or, in other words, the force with which the blood is thrown into the aorta and the coronary arteries is a resultant of two forces acting in contrary directions; on the one hand, the force of inspiration tending to draw outward the mobile walls of the cardiac cavities, and the blood contained in the latter; and, on the other hand, the force of the ventricular systole compressing the walls inward, and by thus displacing the contents of the ventricles driving these contents forward.

It may be noted in passing, that, owing to this circumstance, a real intermittence of vascular shock is secured to the brain, since the periodical diminution in the force with which blood is thrown into the cranial cavity coincides with the periodical aspiration of blood from that cavity during inspiration. Such

* See minutes of meeting of May 14th.

intermittence would not exist were it true, as has sometimes been erroneously asserted, that the force of the cardiac systole is stronger during inspiration than expiration, for then the effect of inspiration upon an intracranial pressure would be compensated.

The "negative pressure" ("negativen Druck"), which should thus normally be exercised on the heart, is diminished whenever the expansion of the thorax is lessened, as by pleuritic effusions. The heart, therefore, becomes accustomed to act independently of such pressure, which is equivalent to saying that motor force is not stored up in its ganglia in sufficient quantities to overcome the habitual amount of physiological hinderance which has been removed. When, therefore, this is suddenly restored—that is, when the operation has freed the thorax from the effusion which may have held one of its sides motionless, and the chest-walls begin to expand, they draw not only on the compressed lung, but on the heart, tending by "negative pressure" to arrest its action in diastole. This tendency is not resisted as effectively as in physiological conditions, because by morbid habit the physiological reserve of force in the excito-motor ganglia has been reduced. If the reduction has fallen below a certain minimum, or if the cardiac muscle is degenerated, or if the expansion of the liberated chest walls be sudden, syncope, or diastolic arrest of the heart, is almost inevitable. It is again only a question of degree whether such arrest shall prove permanent, *i. e.*, fatal.*

[*Note.*—Lambert, in a thesis on the method of Waldenburg (Paris, 1877, p. 28), calculates that the negative pressure exercised by pulmonary elasticity varies from 9 to 40 mm. of mercury. This negative pressure adds itself to the positive pressure exercised by the blood—pressure equal to one atmosphere, *i. e.*, 760 mm., and the sum of the forces which dilate the heart and facilitate diastole are thus equal to 809 mm. of mercury. The forces which tend to facilitate systole are represented by the pressure of the intra-pulmonary air, which is 703 mm. in deep inspiration, 759 mm. in calm inspiration, 762 in calm expiration, and 847 in forced expiration. "If we suppose that the glottis were closed during inspiration, then the volume of the cavity would increase without any atmospheric air coming to fill the vacuum produced. It is evident that then all the dilatable organs contained in the cavity would increase in size, and the force of suction exerted on the walls of the heart would be at its maximum. . . . . In man, even when the glottis is open, the aërian canal is too narrow to permit the vacuum to be immediately filled; hence *partial* dilatation of vascular cavities during inspiration. During expiration, on the contrary, air does not pass out rapidly enough; it is partly compressed, and the pressure is transmitted to the external walls of the heart. It is this simple fact which determines the influence exercised on the circulation by the respiratory movements."]

M. Putnam-Jacobi, M.D.

Dr. J. Milner Fothergill has written a letter to the *New York Herald*, appealing to American exporters to send cream to London; he thinks it might be a practicable and profitable venture, and it would furnish a much needed article to the inhabitants of London.

* See case in Am. Journ. Med. Sciences for April, 1879, of Transient Syncope during Evacuation of Pleura by Capillary Trocar. The patient ultimately recovered.

PROVIDENT DISPENSARIES.

To the Editor of The Medical Record.

Dear Sir:—In the recent discussions upon Dr. Sturgis's paper, in the County Medical Society, the various speakers alluded to what is known as the Provident Dispensary System only to condemn it, while from their remarks it was evident that they were ignorant of its claims, of its growth abroad, and of its undoubted success wherever fairly tried.

The system is briefly this: A number of families living near each other, whose income does not exceed a certain sum, combine to form a society or union for the purpose of obtaining medical relief.

The machinery is very simple. A fixed sum, varying in amount according to the number in the family and the ages of the children, is paid weekly in advance into a common fund. This payment entitles the family to send, in case of illness, for any one of a certain number of physicians, the particular family adviser being previously selected if desired. In most unions, confinements and surgical cases are excluded, or treated at special rates.

At the end of a definite period, usually a year, the books are balanced and the physicians are paid according to the amount of the work done, expenses having been deducted.

The limit of income, beyond which one is not entitled to membership, varies in different unions. The average is about $500.00 per annum.

This description applies to the Provident Dispensary System of England, which has grown to immense proportions within the past ten years.

It is not a measure for the relief of sick paupers; for them the hospital and dispensary clinics must still open their doors.

It is especially for that class who can, and who ought to pay for their medical treatment, and, I might add, who are willing in most cases to pay when the subject is presented to them fairly, before they have become debauched and medically pauperized by contact with our present disgraceful system of medical charity.

This subject is receiving abroad the attention which its importance demands.

In March, 1870, a meeting was held in London, which was presided over by the late Sir William Fergusson, at which 156 members of the medical profession were present. The following resolutions were passed:

"That this meeting is of opinion that there exists a great and increasing abuse of out-door relief at the various hospitals and dispensaries of the metropolis, which urgently requires a remedy; and

"That it is the opinion of this meeting, the evils inseparable from the system of gratuitous medical relief administered at the out-door department of hospitals and in free dispensaries can be in great measure met by the establishment, on a large scale, of provident dispensaries, not only in the metropolis, but throughout the kingdom, and by improved administration of poor law medical relief."

A large committee was then appointed, which apportioned the subject among four sub-committees: Dr. Meadows, Dr. J. E. Pollock, Dr. A. P. Stewart, and Mr. Spencer Wells, chairmen. Dr. Meadows stated at this meeting that "the probable income of half the out-patients of the London hospitals may be estimated at from £1 to £1 10s. ($5.00 to $7.50) a week, and of one-fourth at more than this." I think this would be equally true of New York City.

The various sub-committees appointed, as above stated, patiently and thoroughly investigated the subject. They "found that it was hopeless to endeavor to make people provident while they were educated to dependent mendicant habits at free dispensaries and out-patient departments of hospitals."

In April, 1875, a memorial was addressed to the President and Committee of the British Medical Association by 303 members of the profession, including Sir William Fergusson, Sir William Jenner, Sir William Gull, Sir Rutherford Alcock, Mr. Prescott Hewett and Mr. Erichsen, representing "that the manner in which the hospitals and free dispensaries, with some few exceptions, throughout the kingdom are at present conducted, inflicts a serious injury upon many of the most deserving members of our profession; and while the indiscriminate or almost indiscriminate bestowal of gratuitous medical relief upon all applicants lowers the whole scale of our professional remuneration, it is far from being a real boon to the working classes themselves, and cannot fail in the long run to have a prejudicial effect upon the nation at large."

The leading members of the medical profession one by one gave their final adhesion to the movement, and in April, 1877, a second general conference was held, presided over by Dr. Acland, Regius Professor of Medicine at Oxford, and President of the Medical Council of Great Britain, and attended by Lord Stanhope. Sir William Gull, Sir Rutherford Alcock, Mr. Erichsen, Dr. Guy, and many other distinguished surgeons and physicians.

A paper was read by Sir Charles Trevelyan, presenting a comprehensive view of the subject, afterward published; and the following resolution, moved by Sir William Gull, was carried unanimously:

"That the improvement of the people of London, in health and habits of thrift and independence, demands that, while on the one hand, out-patient departments should be regulated so as to secure the prompt treatment of cases requiring the special resources of a hospital, on the other, free dispensaries should be converted into provident dispensaries, and new provident dispensaries should be established in proportion to the wants of the population."

In some respects, at least, they seem "to do these things better" in England, for happily the present agitation has resulted in corresponding efforts on the part of the hospital authorities.

Last autumn Sir Sidney Waterlow, treasurer of St. Bartholomew's Hospital, convened a meeting of the trustees, chairmen, and treasurers of all the general hospitals, at which it was agreed to make inquiries respecting their out-door departments.

This action resulted in a meeting held at the house of Sir T. Fowell Buxton, on March 21, 1879, which was largely attended by the leading medical men of London.

It was stated by Mr. E. H. Lushington, treasurer of Guy's Hospital, that about 600,000 people came annually to thirteen of the best hospitals in London for medical advice and assistance, at a cost for medicine of £15,000 per year. The average attendance of these patients varied from three to seven hours before each could be attended to, and the rush was so extreme that the medical advice they received was almost perfunctory.

At the same meeting Sir C. Trevelyan, in the course of his remarks upon the same subject, stated that statistics which had been already gathered, proved that "of 600 patients who reported annually to five or six of the larger hospitals, two-thirds ought not to be patients at all; they were trumpery cases of colds, indigestion, and imaginary ailments."

I fear, Mr. Editor, that I have already trespassed upon your space in this effort to show what has been done and what is being done abroad.

It is true the evil is greater in London than in New York, but is it not well to be wise in time.

I firmly believe the "way out" is by the establishment of true provident dispensaries.

Respectfully yours,

HENRY E. CRAMPTON, M.D.

221 SECOND AVE., N. Y., July 23, 1879.

SACCHARATED CHLORO-PEPSINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—After a somewhat extended experience with a comparatively new preparation, let me give the readers of "THE RECORD" the results of my observation.

Last summer my attention was attracted to the claims of saccharated chloro-pepsine. Although I had previously been partial to cerium oxalate in the treatment of nausea and vomiting in pregnancy, and as a gastric sedative in other forms of nausea and vomiting, I determined to give the new compound a fair trial. I have had every reason to be well pleased with its action, and have found it equally as efficacious as the cerium alone; in some cases more so, and it possesses the advantages of aiding digestion, preventing "acidity," preserving the appetite, and being palatable.

Extending its field of operation, I tried its effects in a case of nausea, vomiting, and anorexia due to chronic alcoholism. After prescribing other remedies (stomachics, simple pepsine, gastric sedatives) with indifferent effect, as soon as I ordered the saccharated chloro-pepsine improvement began, and the affection promptly disappeared. The same remedy proved equally potent in relapses.

Last summer (especially during the month of August) I tested the value of saccharated chloro-pepsine in infantile summer complaint. In cases where mother's or diluted cow's milk is rejected by the stomach or passed *per anum*, or both, wherein the stools are frequent, green, acid, and ill-odored, this preparation, in conjunction with prescribed nourishment (lime-water or Vichy water, and milk, raw meat, or raw meat-juice), acted very promptly. Immediately its use was begun vomiting ceased, and the stools gradually underwent a change as regards frequency, color, odor, etc., till in a short time the complaint was cured.

As a general remedy in the large proportion of these cases, either alone or combined with minute doses of pulv. rhei, saccharated chloro-pepsine has given me happy results.

Sprinkled upon a teaspoonful of milk or meat-juice, children take it very readily.

Simple pepsine and lacto-peptine have not afforded as much satisfaction.

The peculiar value of saccharated chloro-pepsine seems to reside in the combination of the pepsine with the other ingredients, whereby a sedative and tonic effect is manifested upon the stomach and bowels in addition to the digestive power of the pepsine.

Unfortunately, it is a proprietary preparation. Inasmuch as its formula is public property, the former

fact need not deter the progressive physician from employing a remedy of much value for certain affections.

FRANK D. BEANE, M.D.

NEW YORK.

THE NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your issue of June 28th was a communication relative to the "National Board of Health and Homœopathy," which it seems to me requires a reply—not for the purpose of discussing the appointment of a homœopath to such a position, but with the intention of showing what claims those calling themselves homœopaths have to such a distinctive title, and whether they are faithful to the principles they profess.

The implied and expressed wish of B. is a reconciliation of the two sects; more explicitly he desires that orthodox medicine recognize the claims of homœopathy to be considered as a legitimate and distinct school of medicine worthy of notice. If any person ought to know and understand the principles and practice of that doctrine, surely it is the founder thereof, *i.e.*, Hahnemann. Now he distinctly and plainly states that (1) the law of *similia similibus curantur* is the *only* fundamental law of therapeutics; (2) the efficacy of medicine is increased by extreme attenuation or dilution; (3) psora is the cause of the majority, if not all of the chronic diseases.

To these cardinal doctrines, therefore, any person claiming to be a disciple of his must subscribe and adhere unto in practice and precept; for without this confession of faith he can have no claim to the name of homœopath.

Let us see, by taking their own words as evidence, whether any now deserve the name. First, your correspondent B., whom I believe to be a good exponent of the doctrine as it now exists, says: "*Very* many . . . . are educated men, educated in both schools, graduate side by side with us . . . . yet because they choose to administer their remedies according to the law of *similia* instead of *contraria* . . . . we ostracize them. . . . . Their practice is no more based upon an exclusive dogma than ours; their educated men do not reject the accumulated experience of the profession . . . . their anatomy, physiology, pathology, and organic chemistry are the same as ours; they use the same palliatives as we do. The only point upon which we differ is the administration of remedies."

In reply to this I would say that we do *not* ostracize them for administering remedies according to the law of *similia*, *but* because they attempt to trade upon a *name;* and, if their precepts differ in no essential particular from ours, what right have they to that special name? One of the best homœopathic authorities, J. Kidd, says in his Laws of Therapeutics, page 33, "Truth is greater than Hahnemann, and of late years his speculations about psora and infinitesimal doses have been tacitly given up by all the most skilful and intelligent of his followers. . . . . Adopting with great delight the doctrine of *similia similibus curantur* as the chief, though *not* the *only* foundation for therapeutics, I learned for myself that diseases which too often remained stationary under treatment by globules, were most effectually and quickly cured by tangible doses of the same medicines which failed to cure when given in infinitesimal doses." Also from the same work, the following extract from an address before the Hahnemann Society in Cincinnati, in 1875: "Some people suppose that a physician professing belief in homœopathic law is obliged to limit his practice to the application of that law. . . . . The man, however, who is loyal to nature and to truth regards such restrictions as sheer impertinence, and claims *everything* which cures, be the process explainable or not . . . . and if he finds any residuum of truth or usefulness in allopathy or any other system, asks no man's permission to use it."

In 1877, when the homœopaths of Great Britain were making an effort to be admitted to fellowship with the regular profession, the following was written to Dr. Richardson by a leading homœopath: "It is unwise and incorrect to assume the title of homœopath, since we make frequent use of remedies of a simpler kind, such as occasional aperients, anodynes, opiates, anæsthetics, tonics, galvanism, hydropathy, Turkish baths, and mineral waters; finally, the use of the infinitesimal is practically all but abandoned." The leaders of the sect in London also subscribe to the following: "We, the undersigned, believing medicine to be . . . . &c. Therefore, the adoption of any theory or practice should not exclude any medical man from the freest professional intercourse, *provided* he does not trade on a distinctive name, nor unprofessionally advertise his mode of practice."

All this certainly is explicit and conclusive. I have shown that the intelligent and educated homœopathic practitioners have practically given up every shred of homœopathy save what they are pleased to call the law of similars; also, that most, if not the entire amount of credit which the system of "cure by causation" and infinitesimal doses has attained, has been accomplished by the success of men who, calling themselves homœopaths, practised precisely as other physicians do; but to the laity homœopathy still means infinitesimal doses, and to them the charm of novelty has set up a claim to credit totally undeserved. The law of *similia* as well as that of *contraria* is rejected by the regular profession. Therapeutics cannot now be elevated to, nor do its most enthusiastic teachers claim for it, the dignity of a science. So far as that appellation is applicable, it is still in the primary stage of observation; and here for the present it must remain, giving no adherence to any law, but to the knowledge alone that experienced and skilled investigators have gathered and still are accumulating, which is applied tentatively to each case as it comes before us.

This, however, is not science, for we cannot predict the result by either an algebraic equation or the differential calculus. The human frame is infinitely various, and its limits and variations we know not. Why then should doctrines so crude as those proposed for our acceptance by the homœopaths be received? They make a pretence of still holding fast to the law of similars. What law of similars, and by whom educed? is the query. The answer is far from satisfactory. Their so-called proofs are worthless; but even were they not, the method of investigation pursued has little homœopathic save its absurdities.

In direct contradiction to "B.," I would assert that they have *no* pathology. To a TRUE homœopath, disease, however complicated, is nothing but a bundle of symptoms to which he has only to fit a remedy causing the same succession of sequences as the malady, and the cure is wrought.

Therefore I say, that though there is less of intolerance and more liberality of feeling existing now than

formerly, so long as the alleged followers of Hahnemann arrogate to themselves a distinctive system and name, and unprofessionally trade upon it, so long will orthodox medicine refuse to receive them into its ranks. G.

OAKLAND, CAL.

Obituary.

REUBEN SPENCER CHAPIN, M.D.

DR. REUBEN SPENCER CHAPIN, a licentiate of the Medical Society of the State of New York in 1849, made an Honorary M.D. of the same society in 1864, died at his residence, 238 East Eighteenth Street, in this city, on Saturday, the 2d inst., in the sixty-second year of his age.

Dr. Chapin was a native of Somers, Conn., where his remains will be taken for burial.

During the last ten years he has suffered from disease of the spine, which became so severe in March last that he was compelled to abandon his practice. He was favorably known, and for many years held the position of warden and treasurer of Grace Chapel, East Fourteenth Street, in this city.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 27 to August 2, 1879.

CORSON, J. K., Capt. and Asst. Surgeon. Leave of absence extended one month, with permission to go beyond the limits of this Division. S. O. 84, Div. of the Pacific, and Dept. of California, July 21, 1879.

KANE, J. J., 1st Lieut. and Asst. Surgeon. To proceed to Santa Fé, New Mex., and report to Commanding Officer, District of New Mexico, for assignment to duty. S. O. 144, Dept. of the Missouri, July 26, 1879.

BREWSTER, W. B., 1st Lieut. and Asst. Surgeon. To report in person to the Commanding Officer, Fort Robinson, Nebr., for duty. S. O. 64, Dept. of the Platte, July 26, 1879.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. To repair to Fort Peck, and report thence by letter to Col. N. A. Miles, 5th Inf., for duty. S. O. 81, Dept. of Dakota, July 24, 1879.

THE NEW MARINE HOSPITAL ON BEDLOE'S ISLAND.—The Marine Hospital Service is now establishing a hospital for itself on Bedloe's Island. This island is located in the harbor about a mile below the Battery. It has heretofore been occupied and garrisoned by the War Department. During the war a large hospital existed there, and there are now buildings upon it suitable for a hospital of about one hundred and fifty beds. Three surgeons will be in attendance, Dr. C. J. Ellinwood being surgeon-in-charge. A steam ambulance will connect it with the city. The Marine Hospital Service treats about twenty-five hundred cases a year at this port. Heretofore the patients have been distributed amongst the different hospitals of New York and Brooklyn, the greatest number going to Seaman's Retreat Hospital on Staten Island, and to the New York and Brooklyn City Hospitals.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 2, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 26, 1879.	0	4	49	1	36	24	3	0
Aug. 2, 1879.	0	5	34	3	44	19	1	0

THE YELLOW FEVER.—Advices from Memphis bring the intelligence that the yellow fever in that city has not yet been declared epidemic. In a former item we stated that according to rule, given by the President of the Board of Health, the disease would be declared epidemic when it caused a weekly mortality greater than that from all other diseases. That point has been reached, but the National Board of Health ordered that it be not declared epidemic, as there was no rule governing such action. The total number of cases to Aug. 6th, are 261; total number of deaths, 74. The disease lingers in the places where it was most severe last year. Physicians are sanguine that the maximum death-rate has been reached.

The disease is in New Orleans, but has shown no disposition to spread rapidly, and hopes are entertained that it will confine itself to one portion of the city. Aug. 6th—Not a suspicious case has developed since July 30th. The victory of sanitary measures seems assured.

On August 2d, two cases from Havana were sent to Lower Quarantine at this port. There are now five cases of yellow fever in the hospital on Swinburne Island, Lower Quarantine. Thirty vessels are now under the supervision of Dr. S. O. Vander Poel, Health Officer. All are from infected ports, most have discharged their cargoes and will be loaded with outward freight while lying at anchor in the bay. One case of yellow fever found its way to one of our hospitals, wherein the patient died, but additional precautionary steps have been taken so as to prevent the repetition of such an unpleasant occurrence.

The authorities of Rome have declared quarantine against all vessels arriving from America, on account of yellow fever in this country.

HAVANA.—The total number of deaths in Havana from yellow fever during the month of July was 537, against 504 for the same month last year. Since the beginning of the year 857 deaths from yellow fever have occurred here, against 813 for the same time last year.

VOLUNTEERS FOR YELLOW FEVER SERVICE.—The order detailing Surgeon W. K. Schofield for inspection duty at Matanzas, Cuba, under the National Board of Health, has been revoked, and Medical Inspector Somerset Robinson is ordered there in his place.

THE BRITISH MEDICAL ASSOCIATION held its forty-seventh annual meeting this week at Cork, on the 5th, 6th, 7th, and 8th insts., R. W. Falconer, M.D., presiding. An address in medicine was delivered by Alfred Hudson, M.D., Professor of Physic in the University of Dublin; an address in surgery by W. S. Savory, M.B., Lecturer on Surgery at St. Bartholomew's Hospital; and an address in public medicine

by Andrew Fergus, M.D., President of the Faculty of Physicians and Surgeons of Glasgow.

The business of the Association was transacted in six sections, including one on public hygiene and one on psychology. In addition, there was a subsection on ophthalmology and otology, presided over by Mr. Jonathan Hutchinson, and one on dermatology, presided over by Prof. McCall Anderson.

A number of American physicians read papers and took part in the discussions.

Dr. Geo. M. Beard read a paper on "Inebriety and Allied Nervous Diseases in America;" Dr. L. A. Sayre opened the discussion on "The Diagnosis and Treatment of Joint Diseases;" Dr. L. Turnbull, U.S.A., discussed "Tinnitus Aurium;" Dr. E. Seguin read a paper on "The Psycho-Physiological Training of an Idiot Hand."

The Association was hospitably entertained by the city, and its work was interspersed with numerous excursions and receptions.

Powdered Alum in the Treatment of Post-Partum Hemorrhage.—Dr. Clinton Cushing, of Oakland, Cal., suggests the use of powdered alum in the treatment of post-partum hemorrhage, and bases his recommendation upon the success obtained in the following case: Mrs. B., multip., æt. 37, nervous temperament, general health good, previous deliveries uncomplicated, was taken in labor, which terminated in the birth of a healthy child at the end of six hours. Chloroform, not to exceed two drachms, was inhaled during the last half-hour; the placenta delivered itself promptly; the uterus contracted firmly; and, according to his usual custom, within two or three minutes a teaspoonful of the fluid extract of ergot, with one-sixth of a grain of morphia, were administered. Within ten minutes her face was noticed to be deathly pale, her pulse was imperceptible, the bed was deluged with blood, and the vagina was filled with clots. The doctor introduced his hand into the uterus, which was completely relaxed, and no symptoms of contraction could be induced by combined external and internal manipulation and pressure. The woman was nearly moribund; blood was still oozing away. Cold water poured upon the abdomen from a height gave only negative results. He *had* no astringents, and there was no ice at command. A package of powdered alum was found in the house, from which he took a handful, closed his hand, introduced it into the uterus, opened his hand, and then spread it over the entire inner surface of the relaxed organ. The effect was immediate; the uterus quickly and firmly contracted; all bleeding ceased, and it did not return. Convalescence was slow, but satisfactory. There was no secretion of milk. The lochia was normal. The after-pains were only slight. The remedy was used "on the spur of the moment," and with a happy result.

Report of Pennsylvania Hospital for the Past Year.—The report of the Board of Managers of the Pennsylvania Hospital for the year ending the 1st of May, 1879, states that in all the departments of the Pennsylvania Hospital 2,144 patients were treated, and 4,122 out-patients, making an aggregate of 6,266 persons relieved, at a cash outlay of $239,870.74. The number of patients during the year was 620, and 400 remained under care at the close of the report. The report states that since the opening of this branch of the General Hospital, thirty-eight years ago, 7,867 patients have been successfully treated; about 54 in every 100 being males, and 46 females. The expenditure for both branches during the year was $188,851.82, which is a slight excess over expenses, of which $25,004.35 was paid for the support of 53 free patients; besides the free patients many persons have been maintained at a rate less than the average cost of a patient, and the impaired means of support of many of the inmates have caused applications for a reduction of board to be made, which, in proper cases, have been favorably considered; though these concessions were unavoidable, no reduction has been made in the liberal system of maintenance beyond what a prudent economy demands.

The records of the Pine Street Hospital show that 1,672 patients occupied beds in the wards; that 1,524 new cases were received, and 130 now remain under treatment. The entire income from the endowment fund, with other receipts by the treasurer, amounting to $48,370.19, have been spent in this department. Its expenses amounted to $51,018.82.

The Out-patient Department reports: New surgical cases, 3,027; new medical cases, 1,095—total new cases, 4,122. Surgical visits, 18,690; medical visits, 2,409—total visits, 21,099. The increase of cases in the year was 294; of visits, 3,232. The number of cases treated in this department since its opening in November, 1872, is 20,097.

The report also states that the Board have arrived at a plan of introducing women student nurses from the pupils of the Women's Hospital into the wards. Each nurse is to remain in the wards twelve months, entirely under the control of the Board, at a compensation of $13 per month. A thoroughly instructed woman has also been employed as superintendent of the nurses in training, in order that the plan may be rendered thoroughly effectual.

Some applications have been made to know if the Hospital will take charge of invalids needing medical attention for the residue of their lives, with the view of providing them with the comforts of a home. This subject has engaged the attention of the Managers with the hope of organizing a system which may prove to be a valuable aid to the public, and within the proper limits of the design of the hospital.

Puerperal Convulsions and Post Partum Hemorrhages.—There have recently been a number of additions to the therapeutics of these conditions. A writer in the Medical Record has used jaborandi very successfully for puerperal convulsions. In an article in the *Nashville Journal of Medicine and Surgery*, galvanism is claimed to have given equally good results. Fifteen cells were used, the negative pole applied to the os uteri, and the positive to the dorsal and lumbar region. The current was kept up for over an hour.

For post-partum hemorrhage vinegar is extolled very highly by Dr. Penrose in the *Ohio Medical Recorder*. He considers it both antiseptic and astringent. He applies it by saturating a rag with the vinegar, carrying this to the cavity of the uterus, and squeezing it. A writer in the *Ohio Medical Press and Circular* uses a rubber bag with a tube and stop-cock. He inserts the bag into the uterus, and then fills it with warm water; as the uterus contracts it empties the bag. A third method of procedure in these cases is to invert the body while friction and other excitants to uterine contraction are employed.

Dr. Thompson, of San Francisco, is in London, showing the profession there his new method of replanting teeth. It is said that he takes them out, keeps them in warm cotton while he fills them or builds them up, and then replaces them.

Original Lectures.

CLEFT PALATE AND ITS TREATMENT.

A Clinical Lecture delivered at the Hospital of the University of Pennsylvania.

By JOHN ASHHURST, Jr., M.D.,

Professor of Clinical Surgery.

Gentlemen: The patient whom I bring before you to-day is suffering from a congenital affection which, though not very common, is sufficiently often met with to render it important for you to be familiar with its pathology and with the means by which it may be remedied. This young man has come from some distance to obtain treatment for a fissure, or cleft, involving the whole of the soft palate, and the operation by which I hope to relieve him is that which is known as staphylorraphy, and is a good example of a surgical procedure which, in its modern and successful form, is definitely based upon accurate anatomical and physiological knowledge.

Cleft palate, as no doubt many of you know already, may vary in extent from a slight fissure, involving the uvula only (in which case it is also designated as *bifid uvula*), to a gap implicating the whole of both soft and hard palates, and not unfrequently further complicated by the co-existence of single or double harelip. Unlike the latter deformity, the fissure in cleft palate occupies the median line, except when placed in the extreme anterior part of the mouth, when it passes through the alveolus into one or other nostril, or, in some cases, into both—the so-called intermaxillary bone, attached to the vomer, then projecting into the cleft, and dividing it, as it were, into two parts. Cleft palate is, of course, congenital, and is occasionally hereditary; when not accompanied with harelip, it is often unnoticed during infancy, though sometimes, in its worst forms, by permitting regurgitation of food through the nose, it interferes seriously with nutrition, and then becomes a matter for the surgeon's grave consideration. Usually, however, it does not excite much attention until the child is old enough to talk, when, by preventing distinct enunciation and imparting a peculiar nasal tone to the voice, it leads to an inquiry as to the possibility of obtaining surgical relief.

The *age* at which an operation may properly be attempted for the closure of a cleft palate is a matter on which some difference of opinion exists. Until within a comparatively few years it was an accepted doctrine that no interference should be recommended until the patient had acquired sufficient age to earnestly desire relief, and to co-operate with the surgeon in the operation and after-treatment. Without the aid of anæsthesia, staphylorraphy was a very tedious and painful procedure; and even when the operation had been completed, great fortitude and constancy of purpose were requisite on the side of the patient to keep the parts at rest until union should occur. The unfortunate sufferer was not permitted to talk, eat, or drink, nor even to swallow his saliva, which was allowed to dribble from the mouth, lest the act of deglutition should break up the newly formed adhesions. Even as lately as 1867, Dr. J. Mason Warren, who had probably a larger experience in the treatment of cleft palate than has fallen to the lot of any other American surgeon, had operated but once on a young child, and expressed the opinion that it was generally necessary to wait until the patient was old enough to fully appreciate the importance of the treatment pursued, and to submit patiently to pain and inconvenience, adding that this was "one of the very few operations" in which the use of anæsthetics was inadmissible. A similar view was for many years entertained by Sir William Fergusson, who, however, ultimately became convinced that the operation might properly be performed at an early age, and that the patient need not be denied the benefit of anæsthesia.

The advantage of an early operation is that if the fissure be closed before the patient has learned to talk, the nasal tone of voice which is so characteristic of cleft palate may probably be avoided; whereas, after an operation in adult life, the improvement in articulation is often very slow, and sometimes much less marked than may have been expected. On the whole, I am disposed to agree with Mr. Holmes upon this subject, and am in the habit of recommending that an operation should be attempted when the child is three or four years old.

Several distinct forms of operation have been suggested for the cure of cleft palate: one, which, under the name of *staphyloplasty*, has been recently recommended by Schönborn, a German surgeon, consists in taking a flap of mucous membrane from the posterior wall of the pharynx, and fixing it between the freshened edges of the cleft; but the operation which is generally adopted, and which I intend to employ in the present case, is a simpler, and, as it seems to me, altogether a more practicable procedure, and is designated, when applied to the soft palate, as *staphylorraphy*, and when to the hard palate, as *uranoplasty* or *uraniscoplasty*. Again, Lannelongue, a French surgeon, has closed a cleft of the hard palate by bringing down the nasal mucous membrane; while, in cases of *bifid uvula*, my friend and colleague at the Episcopal Hospital, Dr. Forbes, has ingeniously imitated Nélaton's operation for harelip, surrounding the fissure with an inverted ∧ incision, and allowing the flap thus formed (which remains attached at both ends) to drop so as to form a diamond-shaped ◇ wound, which then readily closes by granulation.

I have told you that the success of the modern operation of staphylorraphy is due to the procedure being based upon a careful study of the anatomy of the parts concerned, and to Sir William Fergusson is, I think, undoubtedly due the credit of having first clearly indicated the essential points of the operation. *Staphylorraphy* owes as much to Fergusson as *uranoplasty* does to Warren. I will not say much to you in regard to the latter operation, as it is not required in the case before us, and as most of you are no doubt familiar with it from your didactic lectures. I will merely remind you that Warren's operation consisted in dissecting up the mucous covering of the hard palate from either side of the fissure, and uniting the flaps thus formed in the median line; that Langenbeck modified this procedure by including the palatal periosteum in the flaps, so as to utilize the bone-producing quality of that structure; and that Fergusson, in his later years, reviving a suggestion of Dieffenbach's, divided the entire thickness of the hard palate on either side with a chisel, and then pressed the segments together, and held them in position with wire sutures.

The history of *staphylorraphy* is one of much interest, and it is curious to notice how various improvements were empirically and tentatively introduced by different surgeons, before Fergusson's demonstration of the anatomy of the palate showed clearly

how a successful result was to be sought for. The first attempt to cure cleft palate by operation appears to have been made by a French dentist, M. Lemonnier, about the year 1760; but, though the experiment was subsequently repeated in two or three instances, staphylorraphy did not become an established operation in surgery until after the occurrence of Roux's famous case, in 1819, just sixty years ago. Roux's patient was a student of medicine, a Canadian named Stevenson; and so wonderful, it is said, was the improvement in his speech after the operation, that his friends with difficulty recognized him as the same individual.

A year or two afterward, Dr. John C. Warren, of Boston, operated successfully for cleft palate in a girl of sixteen, and since then staphylorraphy has been practised and improved by numerous surgeons both at home and abroad. Among those who in our own country have particularly illustrated this branch of surgery, I may mention, without wishing to make invidious distinctions, the Warrens, father and son, in Boston; Mettauer, of Virginia; Hosack and Stevens in New York; and Mütter and the elder Pancoast, in this city.

Though the operation was often, it was by no means invariably, successful; and Velpeau, writing in 1839 (twenty years after the occurrence of Roux's first case), refers to a young girl who had been operated on *five* times without benefit, and mentions several fatal cases as having occurred in Roux's own practice.

It was soon found that, though a skilful surgeon could without much difficulty bring the edges of the cleft together with stitches, yet it was almost impossible in many cases to keep the parts sufficiently long in apposition for union to occur, the tension upon the sutures being often very great, and the involuntary motions of the patient tending inevitably to make the cleft reopen Hence Roux introduced the practice of making a transverse incision on either side, along the edge of the hard palate, separating the *velum pendulum* for a short distance, and thus allowing its halves to drop together in the median line. Dieffenbach improved upon this plan by making longitudinal incisions, four lines distant from the edges of the cleft, so that by the gaping of these wounds the tension on the stitches should be lessened. Mettauer substituted for the single incisions of Dieffenbach, numerous small incisions, not all in the same line, and various forms of lateral incision were also resorted to by Liston, Mütter, Pancoast, and other surgeons.

Mason Warren, in 1843, described an important modification of staphylorraphy, which consisted in dividing the posterior pillars of the fauces, and finally, in December, 1844, Fergusson, in a paper read before the Royal Medical and Chirurgical Society of London, and published in the transactions of that body for the following year, showed, from a careful study of the anatomy of cleft palate, that while in the act of deglutition the separated halves of the palate were thrust together by the action of the superior constrictors of the pharynx, the action of the levatores palati and palato-pharyngei tended to draw them asunder, and that hence a division of these muscles would obviate the chief risk of failure in the operation, while after such division the patient might take nourishment freely and without danger, since the action of swallowing would then serve rather to approximate than to separate the parts concerned.

I lay stress upon these points, because efforts have been made to take from the late Sir William Fergusson the credit which is justly his due in relation to this matter. Undoubtedly great success had been obtained before his demonstration was made public, by Warren and Mütter, in this country, and by other surgeons in Europe, but the success was not by any means constant, and the mechanism by which it was obtained was not understood. Fergusson's mode of practising the necessary myotomy was by introducing a curved knife through the cleft, and cutting the levator palati on either side from the nasal surface, the palato-pharyngei being afterward divided, if thought necessary, by cutting the posterior pillars of the fauces with blunt-pointed scissors, as in Warren's operation. Another plan of proceeding has been introduced by Sédillot, of Strasbourg, and consists in dividing the levator palati by transfixing the palate from below—varying, in fact, the longitudinal incisions of Dieffenbach by placing them more outward and backward—and this plan has been further usefully modified by Pollock, in England, and Guérin, in France, by making the incisions, as it were, "sub-mucous," transfixing and making a sweeping cut from above downward, so as to sever the muscles while respecting the buccal mucous membrane. Still another plan is recommended by Bryant, based apparently on a suggestion of Mr. Francis Mason, and consists in cutting loose the palate on each side, from behind forward, so that when the edges of the cleft have been approximated the whole organ resembles a large uvula.

The operation of staphylorraphy may be considered as divided into three stages, which are respectively (1) the myotomy, (2) freshening the edges of the cleft, and (3) the introduction and securing of the sutures. If Fergusson's plan is to be followed, the myotomy must be either the first or second step of the procedure, and, as this part is sometimes attended with considerable bleeding, it may even be thought well to adopt Callender's suggestion, and divide the muscles on the day previous to that fixed for the remainder of the operation. If, which I prefer, Pollock's modification of Sédillot's plan is to be chosen, the myotomy may be conveniently made the last stage of the operation, or at least may be postponed until the sutures are in place, though they may not have been tightened.

Should the patient be anæsthetized? I have no hesitation in answering this question in the affirmative. I have assisted in staphylorraphies performed without the aid of ether, and can testify that under such circumstances the operation is very tedious and painful, and one which is followed by a good deal of shock and exhaustion.

In what posture should the patient be placed? If an anæsthetic be not used, it is customary to adopt a sitting or semi-reclining posture, as better enabling the patient to clear his mouth of blood by spitting; but when ether is employed, the supine position is much more satisfactory, affording a better view of the parts (at least in a room lighted, like this amphitheatre, from above), and allowing the head to be kept perfectly steady during the surgeon's manipulations. There need be no trouble from bleeding if you have an assistant for the special duty of keeping the mouth clear by means of small sponges mounted on sticks.

Great advantage may be derived from the employment of a gag to keep the mouth widely open, and one of the best of the several ingenious instruments which have been devised for the purpose is that which I show you here, and which bears the name of Professor John Wood, of King's College Hospital. To dispose of the patient's tongue, which must be kept out of the operator's way, I know of no better plan than to pass a loop of ligature-silk through its tip, and intrust the

ends (which should be tied together) to an assistant to hold firmly on one side.

For freshening the edges of the cleft, you may employ either a slender knife or scissors. For my own part, I prefer the former instrument, as I do also in the somewhat analogous operation for vesico-vaginal fistula, though I have no wish to decry the value of the scissors in the hands of those who find them more convenient. I find that with the knife I can work more quickly, and I think that it causes less bruising of the tissues.

Your stitches may be of silk, horse-hair, wire, or, indeed, of any material that you may fancy; I do not know that it makes a great deal of difference; but, upon the whole, I prefer a moderately thick silver wire, fastened by clamping on it a tolerably large perforated shot, which is less apt to bury itself in the tissues than one of smaller size. Various complicated instruments have been devised for the introduction of the sutures—some of them, indeed, might pass for portable sewing-machines; but a small, well-curved needle answers every purpose, being held with suitable forceps if silk is to be used, or mounted on a handle if you are going to employ the wire suture. The needles which I show you, and which I intend to use to-day, are, as you see, adapted one for the right and the other for the left side of the palate, and are meant to be passed from below upward, and threaded, after introduction, through the cleft.

While I have been talking to you, our patient has been etherized, and I will now proceed to the operation, trusting that the explanations which I have given will enable you to follow the various steps of my manipulation, of which, unfortunately, most of you will be able to see but little. Having introduced the gag and secured the tongue in the way which I have described to you, I catch one-half of the split uvula with forceps, and, transfixing the edge of the cleft near its angle, cut backward so as to separate a thin shaving of tissue; the same thing is repeated upon the opposite side, and finally the angle of the cleft itself is pared, the mucous membrane being thus removed in one continuous strip. I next introduce four sutures, passing first the left-side needle, which Dr. Hunter threads for me as soon as its eye appears in the cleft; then withdrawing it and repeating the same process on the right side, and intrusting the wires, as each suture is introduced, to an assistant, until all are in place. The next step is the myotomy, which may conveniently be accomplished before the stitches are tightened. Asking my assistant to make the left side of the palate tense by drawing upon the left-hand wires, I transfix it with a double-edged knife just in front and to the inner side of the hamular process, which can be readily felt within and a little behind the position of the last molar tooth. In doing this I take care to direct the point of the knife toward the median line, as an outward thrust might endanger the important vessels in that situation. After transfixion, I carry the handle of the knife upward, so as to depress its blade, which I then withdraw with a sweeping cut, in such a way as to divide the levator palati freely, while saving as much as possible the mucous membrane of the mouth. Repeating the same procedure upon the opposite side, I find that the palate is so thoroughly relaxed that it will not be necessary in this case, I think, to divide the palato-pharyngei.

All that remains to be done, therefore, is to tighten the sutures and fix them by clamping upon the ends of each wire a perforated shot. The patient will be cautioned against talking, coughing, or even swallowing, unnecessarily; but he will be supplied with abundance of nutriment in the form of milk, and the line of sutures will be brushed over every day with a ten-grain solution of nitrate of silver, which, I think, assists the healing process.

[The sutures were removed, beginning with the most anterior, from the fifth to the eighth day, when the whole palate was found to be firmly united, with the exception of a small space in front, which rapidly contracted and healed by granulation. The patient returned to his home, entirely well, on the fifteenth day after the operation.]

Original Communications.

THE HISTORY OF MASSAGE.

By DOUGLAS GRAHAM, M.D.,

BOSTON, MASS.

Part I.

In almost every city of the United States, and, indeed, of the whole civilized world, there may be found individuals claiming mysterious and magical powers of curing disease, setting bones, and relieving pain by the immediate application of their hands. Some of these boldly assert that their art is a gift from Heaven, due to some unknown power which they call magnetism; others designate it by some peculiar word ending with pathy or cure, and it is often astonishing how much credit they get for their supposed genius by the most learned people of the land outside of the medical profession. History informs us that rubbing, kneading, percussion, passive and resistive movements have been partly used, in some form or other, among savage and civilized nations, from the most ancient times. To express these various manœuvres collectively, nearly all physicians who take any interest in the matter, foreign as well as American, seem satisfied with the French word *massage*, from the Greek *masso*, I knead or handle. But so little attention has this subject received, that Prof. Billroth, of Vienna, in 1875, and Dr. Wagner, of Friedberg, in 1876, stated that there were many physicians in Germany who had never heard of massage, and that it was then an every-day question as to what it meant, some even supposing that Dr. Mezger, of Amsterdam, was the originator of it.* Therefore, it is no wonder that when an article appears on the subject it often gets the credit of being original by many who read it, but overlook the fact expressed so well in the words of Hippocrates, that "Medicine hath of old both a principle and a discovered track, whereby in a long time many and fine discoveries have been discovered, and the rest will be discovered, if any one who is competent and knows what hath been discovered, start from these data on the search. But whoever, rejecting these, and despising all, shall undertake to search by a different track and in a different manner, and shall say that he hath discovered something, will be deceived himself and will deceive others." It is nothing unusual to see clear-headed individuals, uneducated as well as those of extensive learning, evolve from their inner consciousness, so to speak, something

* [illegible] Wiener Med. Presse, 1875. Berliner Klin. Wochen., Nos. 6 and 7, 1876.

or other to meet the exigencies of a case, and then announce the same as a new discovery, when it had been put to similar purposes many times before. Such geniuses, if truly ignorant that their device had never before been heard of, deserve equally as great credit as the original inventors; but what very often detracts from the merits of their case is the fact that they did not stop to inquire whether any one else had ever used the same methods or not. On the other hand, it is not always the one making use of something novel who claims originality, but frequently those who are not so well informed on the subject as he is who claim it for him. In the latter category almost every one has been delighted to find himself placed at some time or other, without any such intention on his part; and it is sometimes an agreeable excuse to let it pass, on the ground that it would not be dignified to inform the admirers of their ignorance. These remarks apply to massage and its advocates, as well as to other matters pertaining to medicine.

The earliest definite information concerning massage appears at about the beginning of the fourth century B.C., in the works of the great Greek physician, the Father of Medicine, Hippocrates. Though his notions, like those of the other ancients, were vague and incorrect with regard to the circulation of the blood (the important discovery of which by Harvey not taking place until more than 2,000 years later, A.D. 1628), yet he used rubbing in accordance with scientific principles, in such a way as to aid and not retard the circulation, as is shown by the word with which he defined the process, viz., *anatripsis*—literally, the art of rubbing up, not down. In this way, doubtless, he had had experience in promoting resorption of effusions, as it is now well known that rubbing the limbs upward favors the return of the circulation, relieves blood-stasis, and makes room in the veins and lymphatics for the more speedy passage of morbid products. After the acute stage of an injury had elapsed Hippocrates applied massage, as we learn from the following words: "The physician must be experienced in many things, but assuredly also in *anatripsis;* for things that have the same name have not always the same effects. For rubbing can bind a joint that is too loose, and loosen a joint that is too rigid, and the joint must be moved about," etc.* Paradoxical as this may seem, yet I have witnessed the verification of it in two cases occurring in my own practice. They have already been reported in the New York MEDICAL RECORD for Aug. 11, 1877. The rationale of this statement, however, is not so paradoxical; for by appropriate rubbing, kneading, and passive motion, atrophied muscles, tendons, and ligaments would have their circulation accelerated and increased, and thus their nutrition and innervation improved so that they would grow larger and firmer, and, as a natural consequence, a joint too lax from such causes would become stronger. In the other case, by the same means, involuntary tension of muscles, adhesions, effusions, and hyperplastic tissue may be removed, and thus a joint stiff from such causes be made suppler.

Furthermore, says old Hippocrates in his aphorisms: "Anatripsis can bind and loosen; can make flesh and cause parts to waste. Hard rubbing binds; soft rubbing loosens; much rubbing causes parts to waste; moderate rubbing makes them grow." These words seem like revelation to any one who has had much experience in massage, and the literal fulfilment of them may be observed when the necessary previous conditions exist. Hard and soft, much and moderate are, of course, to be taken in a relative sense; for, what might be hard to one person might seem gentle to another.

Vigorous massage, as we might expect, makes soft and flabby muscles firmer. Gentle or moderate rubbing and manipulating loosens not only the abnormally tough and *matted* condition of the skin and superficial fascia, but also the involuntary tenseness of the muscles, which, if looked for, may often be found not merely locally, but generally, in overtaxed and debilitated people. Such a state of these tissues would often seem to be a physical indication of too great mental tension, which the patient, like his muscles, is unable to relax. And here comes the necessity of a careful discrimination, which Hippocrates evidently appreciated, in using massage; for, if a patient in the condition described should receive such vigorous rubbing and kneading, as is so much advocated nowadays, and which would even seem to be necessary to relax such tissues, his condition would in all probability be aggravated, for reflex action, and consequently still greater tension, would be excited by the pressure of rough friction and manipulation upon terminal nerve-filaments which are already in a state of irritation. An admirable preliminary measure to the use of massage in such cases is the warm bath, for it is grateful and soothing to the patient, solicits the blood to the surface, softens the cuticle, and removes the epithelial débris, as well as relaxes the skin, and to some extent the tissues beneath it.

"Much rubbing causes parts to waste." I have seen people who had a normal quantity of adipose tissue lose much of it, to their detriment, from the excessive use of massage. But even this feature can sometimes be utilized to advantage in cases where fat is superabundant, soft, and flabby, with a want of tone and tension in the areolar tissue. It is well known that tissues, when subjected to great and constant pressure, become attenuated and absorbed; but when acted upon by a less constant and slighter degree of pressure, they increase in thickness. "Moderate rubbing makes parts grow." This implies that the tissues to be rubbed are insufficiently nourished; and moreover, that if they be immoderately rubbed, their vitality will be lessened, their nervous irritability exhausted, and a state of congestion induced highly unfavorable to their proper nourishment.

The ancients entertained sensible views with regard to the maintenance of health. "Not only Hippocrates, but all the physicians and philosophers of that period, knew no better means of strengthening the vital principle and prolonging life than by moderation; the use of free and pure air, bathing, and, above all, by daily friction of the body and exercise. Rules and directions were laid down for giving violent and gentle motion to the body in a variety of ways—hence arose a particular art called the gymnastic; and the greatest philosophers and men of learning never forgot that the body and the soul ought to be exercised in due proportion. This art, to us almost unknown, of suiting exercise to the different constitutions, situations, and wants of man; of employing it, above all, as the means of keeping his internal nature in proper activity, and thereby rendering the causes of disease ineffectual, but also curing diseases which have already appeared, they, indeed, brought to an extraordinary degree of perfection." The gymnastics were divided into athletic, military, and medical. Herodicus of Selivria first proposed gymnastics for the cure of disease; and to such an extent, we are

* Hippocrates, Peri Arthron. Littré, vol. iv., p. 100.

told, did he carry his ideas, that he compelled his patients to exercise and to suffer their bodies to be rubbed; and he had the good fortune to lengthen for several years by this method the lives of so many enfeebled persons, that Plato reproached him for prolonging that existence of which they would have less and less enjoyment.

Nowhere, perhaps, does the wisdom of the ancients appear more strikingly full of truth and meaning than in some of their remarks about massage. The distinguished Roman physician, Celsus, who flourished at the beginning of the Christian era, said that "rubbing should sometimes be applied to the whole body, as when an invalid requires his system to be replenished." "As rubbing is rightly applied after the cessation of an illness, so it must never be used during the increment of a fever, but, if possible, when the body shall have been wholly free from it." . . . . "A paralyzed limb is strengthened by being rubbed. If certain limbs only are rubbed, long and powerful rubbing may be used, for the whole body cannot soon be weakened through a part. But when weakness of the body needs this cure over its whole extent, it ought to be shorter and more gentle. . . . . Chronic pains of the head are relieved by rubbing the head itself. But far more frequently, when one part is in pain another must be rubbed, and particularly when we desire to *draw matter* from the upper or middle part of the body, and therefore rub the extremities." This is not the place to illustrate these remarks with cases treated with the modern methods of massage, though it could easily be done. However, proceeding onward with the march of time we find that one hundred years later history furnishes a good example of the truth of the first two observations here quoted from Celsus. The health of the celebrated Roman advocate, Pliny, which was never very strong, had been shaken by a severe illness the preceding year, A.D. 102. His life, he tells the emperor in one of his letters, had been in danger. He availed himself of a mode of treatment which it is presumed was much in vogue at that time. He procured the services of a medical practitioner who cured many of his patients by the process of rubbing and anointing. So much benefit did he derive from the remedy, that he asked the emperor to grant the physician, who was either a Jew or a Greek, the freedom of the city and the privilege of Roman citizenship. Cicero considered that he owed as much of his health to his anointer as he did to his physician.

In ancient times rubbing and anointing were much used in connection with the baths, the buildings for which were of great magnificence and luxury during the Roman empire, as their immense ruins yet existing testify. The Roman emperor Hadrian, seeing a veteran soldier one day rubbing himself against the marble at the public baths, asked him why he did so. The veteran answered, "I have no slave to rub me;" whereupon the emperor gave him two slaves and sufficient to maintain them. Another day several old men rubbed themselves against the wall in the emperor's presence, hoping for similar good fortune, when the shrewd Hadrian, perceiving their object, directed them to rub one another!

Martial (A.D. 100) undoubtedly refers to some kind of massage in the following lines:

[illegible]

Galen (A.D. 170) recommended friction in a great number of diseases, generally as auxiliary to other means. At Pergamus he was appointed city physician to the school of gladiators. These were rubbed before and after their exercises and combats: before, in order to increase the elasticity and strength of their limbs; after, in order to stroke away the ecchymoses, relieve the pain of the bruises, and to rest and refresh them from their fatigue.

A great deal more might be said to show that the Greeks and Romans knew well the advantages of friction as a hygienic and as a therapeutic agent. But they were not the only members of the Aryan race who practised rubbing. Strabo states that the Indians contemporary with Alexander, 326 B.C., esteemed friction highly. "In the way of exercise," he says, "they think most highly of rubbing; and they polish their bodies smooth with ebony staves and in other ways." "There are public baths in India which are associated with the practice of shampooing. The bather is extended upon a plank, and a vigorous attendant pours hot water over him, presses and bends the various parts of his body, cracks all the joints, and continues the operation of pouring, pulling and pressing for about half an hour. He then rubs him briskly by means of a hair-brush with soap and perfumes, after which the subject is obliged by his fatigue to sleep a few hours, from which he awakes extremely refreshed. The women in India take a lively pleasure in being shampooed by their slaves; and Europeans, who enter upon the process with a sort of fear, describe the sensation which results as delightful and peculiar."

Much the same practices obtain among the Turks and Arabs. With the Russians flagellation and friction by means of a bundle of birch twigs are resorted to after the subject has been well parboiled in a vapor-bath. A pailful of cold water is then dashed over him from head to foot, the effect of which is described as electrifying. After this he plunges into the snow, and thus tempers himself like steel to endure with impunity his rigorous climate. The Siberians and Laplanders also indulge in similar luxuries.

Having seen that massage has been practised after a fashion by the Greeks, the Romans, and the Hindoos, it is reasonable to suppose that it was also made use of by their common ancestors, the Aryans; so that its origin may well be spoken of as hoary with antiquity, or as some say, lost in the night of time. It may not be amiss, just here, to let history tell us who the Aryans were, and where their original place of abode was. The Aryan branch of the Caucasian race includes nearly all the past and present nations of Europe, and is that division to which we ourselves belong. The Aryans are described as being a fair-skinned, noble people, progressive, practical, and warlike, and it is said that they speedily subdued the country adjacent to them, and also the peninsula of India, 3000 years B.C. The original seat of the undivided Aryan stock was to the north-east of Persia, in the region of the Oxus and Jaxartes rivers. The water of the Oxus is said to have been extremely soft, so as to have made the skin of those who bathed in it glisten. Now, we can imagine that from the pleasant sensation of drawing the hand over the skin in admiration of the effect of the water of the Oxus upon it, may have arisen the practice of systematic friction among the Aryans.

So much for the history of massage in what might be called its period of invention. We will now briefly glance at what might be styled its period of renewal, in the sixteenth century, as but little of interest can be found worth mentioning till that time. Ambrose Paré,* in his works, which were published in 1575,

* [illegible]

states that friction was in great esteem in his time. He describes three kinds of frictions, the gentle, the medium, and the rough, and the effects of each. In dislocations he recommends that the joint should be moved about this and that way—not violently—in order to resolve the effused fluids and extend the fibres of the muscles and of the ligaments, so as to facilitate the reduction. From this it is apparent that he knew the influence of passive motion in promoting absorption, the rationale of which has been so well studied of late by German physiologists.

Hoffman, in his *Dissertationes Physico-Medicæ*, 1708, says "that exercise is the best medicine for the body." (It is not always applicable, however.) "We cannot imagine," he adds, "how much it is salutary and favorable to health; corporeal exercise excites the flow of the spirits and facilitates the excretions from the blood." He describes the passive, active, and mixed movements of the ancients, as well as the *apotherapeia* or perfect cure, meaning the last part of the ancient gymnastics, which consisted of friction, inunction, and bathing, for the purpose of obviating fatigue and curing disease.

Alpinus, in his *Medicina Egyptia*, says that frictions are so extensively used among the Egyptians that no one retires from a bath without being rubbed. "For this purpose the person is extended, then he is malaxated (manipulated, kneaded) and pressed in divers manners upon the various parts of his body. Passive motion is then given to the different articulations. They are not satisfied with *masséeing*, flexing, and extending the articulations alone; they exercise the same pressures and the same frictions upon all the muscles." The effect of which is thus described by M. Savary: "Perfectly *masséed*, one feels completely regenerated, a feeling of extreme comfort pervades the whole system, the chest expands and we breathe with pleasure, the blood circulates with ease, and we have a sensation as if freed from an enormous load; we experience a suppleness and lightness till then unknown. It seems as if we had just been born, and as if we truly lived for the first time. There is a lively feeling of existence which radiates to the extremities of the body, whilst this is given over to the most delightful sensations; the mind takes cognizance of these and enjoys the most agreeable thoughts; the imagination wanders over the universe which it adorns, sees everywhere smiling pictures, everywhere the image of happiness. If life were only a succession of ideas, the rapidity with which memory retraces them, the vigor with which the mind runs over the extended chain of them, would make one believe that in the two hours of delicious calm which follows we live a great many years."

Shakespeare has not forgotten to mention rubbing and kneading:

> IAGO.—My lord has fallen into an epilepsy:
> This is his second fit; he had one yesterday.
> CASSIO.—Rub him about the temples.
> IAGO.—No, forbear:
> The lethargy must have his quiet course.
>
> OTHELLO, iv. 1.

> AJAX.—I'll knead him; I'll make him supple.
>
> TROILUS AND CRESSIDA, ii. 3.

These lines indicate the empirical and the rational use of massage, though the latter was employed in a figurative sense.

(To be continued.)

LITHOLAPAXY, by the method of Dr. Bigelow, has been performed in New York thirty-four times, with three deaths.

PILOCARPIN IN INTERMITTENT FEVER.

By GASPAR GRISWOLD, M.D.,

HOUSE-PHYSICIAN TO BELLEVUE HOSPITAL.

THE treatment of intermittent fever naturally divides itself into measures which have in view the control of the paroxysms, and others intended to prevent the development of the malarial cachexia. For the latter purpose, the sulphate of quinine has been generally adopted by the profession; to accomplish the former, many remedies have been employed at different times, but without any very satisfactory results. It has long been held by good authorities that the development of the cachexia depends in many cases upon the occurrence of a succession of paroxysms. According to this view, the system contracts a habit of having a chill, fever, and sweat periodically; the characteristic anæmia, debility, and lassitude develop as the result of frequent exhausting pyrexias. It is well established that the prevention of the development of a single paroxysm diminishes the tendency to the occurrence of successive ones; indeed, many cases have been reported in which this alone has brought about a cure, no constitutional treatment being resorted to. That the profession has appreciated the importance of preventing a chill is well attested by the long array of measures which have been proposed for this purpose. It has been proposed to tourniquet the limbs, and thus arrest the paroxysm by preventing the congestion of internal organs. Sinapisms have been applied all over the body with the same end in view. Cups have been used over the spine, with the hope that some good result might be obtained from counter-irritation in the region of the nerve-centres. Some one has advocated the application of cold to the surface, believing that the paroxysm would be prevented by the nervous shock so produced. Others have claimed that a paroxysm might be prevented by bringing the patient fully under the influence of alcohol. Violent exercise before the hour when the paroxysm usually commenced has been said to act as a preventive by inducing diaphoresis. More often resorted to than any of the above are full doses of opium, and drachm doses of chloroform, taken internally. All attempts to prevent or abort paroxysms have been thus far so unsuccessful that treatment is now nearly always merely palliative, being simply an attempt to make the patient as comfortable as possible while he is passing through the different stages. After the paroxysm is over, quinine is given in large antiperiodic doses. If the fever be of tertian or quartan type, the next paroxysm may generally be prevented; if it be of the quotidian variety, the chances are about even that another chill will occur.

Now, what is needed is an agent which will antagonize a chill so soon after its administration that it will not be necessary to limit our efforts to preventing the occurrence of a second or third paroxysm, but will be possible to promptly cut short the first. I believe the muriate of pilocarpin to be such an agent. The essential conditions of a chill are a small, hard pulse, peripheral anæmia, and convulsive muscular contractions. Pilocarpin relaxes arterial tension, causes a determination of blood to the surface, and in the progress of the diaphoresis induced by it, brings about muscular relaxation. This theoretical antagonism receives clinical support from the following cases:

CASE I.—John H., thirty years of age, stated on admission to hospital that he had been suffering for two

weeks from malarial intermittent fever, tertian type. He said that his chill usually lasted an hour, and was followed by high fever and sweating. He had never suffered from intermittent fever before, and was not run down or anæmic. He had his first paroxysm in the hospital on the day after his admission, the cold stage commencing at 11.35 A.M. The chill was well marked, the teeth chattering, and the whole body shaking violently. Three minutes after his chill was fully developed, pilocarpin muriat., gr. ¼ was administered hypodermically. In 1 min. 40 sec. he drew a long breath, like a sigh, his convulsed muscles relaxed, and his chill stopped. A minute later his skin was moist with a slight perspiration, which went on to well-marked diaphoresis, lasting about twenty minutes. No noticeable ptyalism was produced, and the diaphoresis was not more profuse than that which ordinarily follows the hot stage of a paroxysm. Forty-five minutes after the cessation of the chill the man's temperature was 99¼°. He requested to be allowed to leave his bed, asserting that his chill was over, and that he felt all right. He complained of no fever during the remainder of the day. Patient was retained in hospital for two weeks for further observation. At the end of that time, another paroxysm not having occurred, he was discharged cured. The one dose of pilocarpin muriat. was all the treatment he received.

CASE II.—James R., thirty-six years of age, had suffered for one week from malarial intermittent fever, quotidian type. The chills generally lasted about an hour and a half. No history of malaria previous to this attack; general health good. Admitted to the hospital in the afternoon; had a well-marked chill at 9.30 A.M. on the following morning. As soon as the chill was fully developed, pilocarpin muriat., gr. ¼, was administered hypodermically. In 2 min. 50 sec. a long sigh of relief (like that mentioned in the preceding case) ushered in general muscular relaxation. Moderate diaphoresis followed, lasting about half an hour. No ptyalism. Temperature 99° an hour after cessation of chill. Patient considered his paroxysm at an end, left his bed to go about as usual, and reported that he felt no fever during the afternoon. He had no chill during the next ten days, and was, at the end of that time, discharged cured. He received no treatment beyond the single dose of pilocarpin above mentioned.

CASE III.—Hans E., forty years of age, had malarial intermittent fever, tertian type, for ten days before his admission. He had had chills in former years, but seemed in fair general condition. On the day after entering hospital he had a well-marked paroxysm, which was allowed to run its course without treatment, the temperature being taken every half-hour. These temperatures are here introduced for the sake of contrast. Two days afterward another paroxysm occurred. This time pilocarpin muriat., gr. ⅛, was given hypodermically immediately after the commencement of the chill, and the temperature was taken as in the preceding paroxysm.

3 min. 40 sec. after the pilocarpin was given the chill ended, with the characteristic long breath and general muscular relaxation. Diaphoresis was not excessive, and there was no ptyalism. Patient felt well half an hour after the administration of the pilocarpin. Remained in the hospital nine days longer without experiencing another paroxysm. Discharged cured. No other treatment than that described.

1st Paroxysm. No treatment.				2d Paroxysm. Pilocarpin muriat., gr. 1/8, at 10.13 A.M.			
10.35 A.M.	T. 102			10.10 A.M.	T. 102¼		
11	104			10.30	100¼		
11.30	104½			11	99¼		
12 M.	104			11.30	99¼		
12.30 P.M.	105			12 M.	99		
1	106½	Chill.		12.30 P.M.	99¼		
1.30	106		Fever.	1	98¼		
2	105½			1.30	99		
2.30	106			2	99¼		
3	105½			2.30	99		
3.30	104			3	98½		
4	102¼	Sweat.		3.30	99		
4.30	100½			4	99½		
5	99			4.30	98½		

CASE IV.—Michael C., twenty-eight years of age, had suffered from malarial intermittent fever, tertian type, for twelve days before admission. General health good. Had never had chills before. Had two paroxysms in hospital, treated and observed like those in the preceding case.

1st Paroxysm. No treatment.				2d Paroxysm. Pilocarpin muriat., gr. 1/5, at 11.09 A.M.			
11.15 A.M.	T. 101½			11.05 A.M.	T. 102		
11.45	103			11.35	100½		
12.15 P.M.	103½	Chill.		12.05 P.M.	99½		
12.45	104			12.35	99¼		
1.15 P.M.	105		Fever.	1.05 P.M.	99¼		
1.45	104½			1.35	99		
2.15	103½			2.05	99½		
2.45	102½	Sweat.		2.35	99¼		
3.15	100½			3.05	99		
3.45	99			3.35	99		

Chill stopped 3 min. 20 sec. after the pilocarpin had been given. Diaphoresis moderate. No ptyalism. Without further treatment patient experienced no more paroxysms during the next ten days. He was then discharged cured.

CASE V.—Carl G., forty-five years of age, had suffered from malarial intermittent fever every summer for several years. Present attack—quotidian type—had already lasted three weeks. Spleen somewhat enlarged, appearance cachectic. Experienced two paroxysms in hospital; these were observed and treated as described in the other cases.

1st Paroxysm. No treatment.				2d Paroxysm. Pilocarpin muriat., gr. 1/5, at 10.15 A.M.			
10.30 A.M.	T. 102			10.10 A.M.	T. 101¼		
11	105			10.40	102¼		
11.30	105½	Chill.		11.10	106		
12 M.	105			11.40	106		
12.30 P.M.	104			12.10 P.M.	105½		
1	105		Fever.	12.40	105½		
1.30	106½			1.10	105½		
2	107			1.40	104½		
2.30	106½			2.10	104		
3	106½			2.40	103½		
3.30	106			3.10	102½		
4	105½			3.40	101	Sweat.	
4.30	105			4.10	99½		
5	105			4.40	99		
5.30	104½			5.10	99½		
6	102			5.40	99		
6.30	100			6.10	99½		
7	99			6.40	99		

Slight diaphoresis and marked diminution in violence of chill took place in 5 min. 40 sec. after the administration of the pilocarpin. Occasional convulsive twitchings occurred for ten minutes more. The chill stopped entirely sixteen minutes after the hypodermic had been given. The sweating caused by

the pilocarpin was very slight, and lasted only a few minutes. A well-marked hot stage succeeded the chill and terminated at about 2.30 P. M. in a sweat. The paroxysm, therefore, was not aborted; it went through its regular stages, although mitigated and lasting a shorter time. The patient remained in the wards for two weeks without having another chill, and was then discharged cured. No other treatment.

N.B.—The diaphoresis in this case was so slight that I was led to the conclusion that I had not given enough pilocarpin (my patient was a very large man, weighing over two hundred pounds). If he had experienced another chill while in the hospital I should have given him gr. $\frac{2}{3}$ instead of $\frac{1}{3}$. Perhaps a more profuse diaphoresis might have aborted the paroxysm in this case as it did in the others.

CASE VI.—Man with malarial intermittent fever, quotidian type. Chill cut short with pilocarpin. After this were prescribed ten grains of quinine in the morning, five grains at noon and evening. Recovery without another chill.

CASE VII.—Woman with malarial intermittent fever, tertian type. Pilocarpin muriat., gr. $\frac{1}{3}$ given hypodermically at about the time when the paroxysm was due, just before the chill had developed. Chill did not occur. Quinine then ordered, gr. v., t. i. d. Recovery without another chill.

From these cases it seems fair to conclude:

1st. That the muriate of pilocarpin, administered hypodermically, will promptly cut short the chill of malarial intermittent fever.

2d. That in a large proportion of cases so treated the paroxysm aborts, terminating in the sweat caused by the pilocarpin, there being no hot stage.

3d. That such abortion of a paroxysm is in itself sufficient to effect a cure in many cases.

4th. That such abortion of a paroxysm is a valuable adjuvant to treatment with quinine during the intervals.

5th. That a dose of pilocarpin sufficient to produce this effect acts gently, without causing exhausting diaphoresis or unpleasant ptyalism.

The promptness with which an adequate dose of pilocarpin interrupts a chill is suggestive of its possible efficacy in cases of pernicious intermittent fever, where prevention of the full development of a paroxysm is often of the first importance.

HYDROPHOBIA.

BY C. C. GODDARD, M.D.,

TEXAS

MEPHITIC INOCULATION.

AT 6 A.M., May 26th, was called to see I—— W——, æt 8, female. Obtained the following history from the father of the patient:

While himself and wife were absent from home, and the child was stopping with his brother's family, she was bitten March 15th, while sleeping on the floor of cabin, on upper lid of right eye and cheek immediately below; the latter point being only slightly abraded. She caught and held the intruder down upon the floor, until her uncle could rise from bed, and start to her rescue; she then released her hold upon it, and sprang into bed. Her uncle at the same moment ignited a match and saw it was a "skunk," which was advancing toward him with apparent evil intent; but the light evidently altered its purpose, as it slowly retreated behind a trunk in the room, where Mr. W—— shot it as soon as possible.

Upon being shot, the skunk gave out its characteristic odor very strongly, so much so that they had to vacate the house soon afterwards; the odor was still very strong in the house when visited several days subsequently by the child's father.

Mr. W—— excised with a knife as well as he could the bitten portion of eyelid within a half-hour after the attack.

He had no caustic to apply to wound, but applied a poultice of cactus, which applications were still being continued three days afterwards when the parents arrived, accompanied by Dr. W——, another brother of child's father.

The child's hands were lacerated somewhat while holding the skunk, but whether any of the abrasions were made by its teeth they were unable to determine definitely; but thought not.

The doctor remained some time with them, and cauterized two or three watery vesicles that made their appearance on the cheek near the eye; but whether these vesicles were produced by the poison or by the cactus-briers, he (the father) was unable to state, but thought the latter, as there were several of same character upon the forehead afterwards, produced evidently by cactus-points.

The wound healed nicely, and after a few days, during which time she was somewhat depressed (knowing her danger), her spirits rose and she appeared in perfect health. This state of things continued until May 24th, when her father, upon returning home after an absence of several days, at once noted a very peculiar expression upon her face, different from anything he had ever observed there before.

Upon investigation he found that she had no appetite, acted depressed, and had been troubled with vomiting, complaining before and after each emesis of a peculiar itching and burning pain around the right eye. She being somewhat constipated they gave her some "salts," hoping that it was merely a "bilious attack."

The salts operated freely during the night, but she appearing no better, they started next morning, May 25th, for this post dreading lest their worst fears were about to be realized.

Upon examination I found the child lying quietly in bed, pulse rather hard and full, skin dry, tongue coated with whitish yellow fur, and a slight stare to the eyes.

She complained of nothing whatever, said she had no pain at present about the eye or head, acted as though she did not care to be disturbed, and was perfectly rational.

Ordered some small pieces of ice to allay any vomiting.

Visited her again at 9 A.M.; found the ice had relieved the vomiting. Prevailing upon her to sit up in a chair, she drooped her head upon her hands, and persistently kept her gaze fixed upon the floor. Said she wanted nothing to eat, although she had then eaten nothing for over forty-eight hours. When offered food she refused, and turned away her head to avoid seeing it. The mother, by my direction, brought some water in a basin to bathe her face and hands. Having stepped out of the room for a moment, I was called, and told that the child complained of pain every time they attempted to touch her with a wet cloth. I told the mother to try again; she did so, but no sooner did the water touch her face than she had a very well-marked, but not severe, convulsion, clutching at her throat and face.

The convulsion was preceded and accompanied by marked redness about the region of the bite, radiating

over the forehead and down upon the cheek. Convulsions were of the clonic type, laryngeal spasm very pronounced.

Attempted to administer ether, but it only made matters worse. Then gave her ½ grain alcoholic ext. Calabar bean hypodermically. The child being unfavorably situated, owing to the house being quite small and the occupants numerous, I ordered her to be taken to the hospital, where a room was assigned to her, and Steward C. W. Croft gave her the closest attention in seeing the treatment carried out, keeping careful notes of treatment and progress of disease, and seeing that everything was done that could be for her comfort.

11 A.M.—Ordered ℥ ij. beef-tea per rectum, which was retained nicely. At 12.30 P.M. took small piece of ice on handkerchief with some trouble. Food being offered upon a spoon, for which she expressed desire, she was again seized with convulsions of short duration. Saw her again at 1 P.M.; had several spasms of milder type.

Administered ½ gr. Calabar bean hypodermically.

Pulse 100; temperature 99$\frac{3}{5}$° F.

3 P.M.—℥ ij. beef-tea per rectum, but was rejected.

5 P.M.—℥ ij. beef-tea injected and retained.

6 P.M.—Small piece of ice again offered, which brought on spasm, but was finally taken and swallowed with great difficulty.

7.30 P.M.—$\frac{1}{8}$ gr. Calabar bean injected hypodermically.

During the afternoon the patient was more or less delirious. Any one coming into the room excited and threw her into spasms. It worried her to be looked at, and she would shift her position and try to avoid their gaze. She suffered greatly but heroically during the day, but towards evening the agony became so great that she gave frequent expressions to her suffering.

The vomiting, which was allayed for a short time during the morning, again set in and continued until death brought relief. Between the spasms of pain and vomiting she was bathed in a profuse perspiration.

At 8 P.M.—Beef-tea again injected, but immediately thrown off.

8.30 P.M.—Pulse 118; temperature 101° F.

10 P.M.—℥ ij. milk injected per rectum, which produced convulsions of severe type. The last few injections were attended with great difficulty, and were here abandoned, as they only appeared to increase the suffering.

At 1 A.M ¼ gr. morphia sulph., hypodermically, the administration of which brought on the convulsions anew, which assumed at this time a very serious and alarming character, continuing with hardly an intermission for about two hours, requiring at times main force to keep her in the bed. From this time on everything tended to increase her sufferings, a draught of air, opening of a door, touch, look, sight of any glass-ware, all reproduced the seizures.

The countenance expressed great anxiety, excitement, and terror. Had tried several times since the morning to administer ether or chloroform, but every attempt was baffled by such alarming convulsions and laryngeal spasm that it had to be abandoned.

About 3 A M. the patient became exhausted, with a scarcely perceptible pulse; the convulsions were less in number, but more severe in character. Could not take the temperature as the thermometer was liable to be broken in the attempt.

At 5 A.M., gave hypodermically ¼ gr. morphia sulph., which gave her some slight relief, and she rallied slightly, but only for a short time. She grew rapidly worse, and suffered so much that at 7.30 A.M. gave another ¼ gr. morphia sulph., but with no apparent effect. Nature was being exhausted, and unable to throw off the accumulations of viscid mucus; and when I again saw her a few moments after injection, she was apparently dying from asphyxia, being at the time under the influence of a terrible convulsion. She was pulseless. Respirations labored—four or five per minute; lips and face of a purplish hue. Administered chloroform, the spasm relaxed, pulse reappeared, color returned to face, respirations became easier and more frequent. This condition of improvement lasted probably one-half hour, at which time another and still more severe convulsion seized her, which chloroform possessed no power to alleviate, and lasted until death closed the scene, and her sufferings were ended.

The characteristic frothy mucus was present from the first, and was expelled in great quantities. Horror of water was typical, even ice produced the same effect; solid food, medicine, everything offered her was productive of the same result. Was not able to give her anything by the mouth, excepting the few pieces of ice already mentioned.

This case is of interest, as showing, in so far as one case can, that the assertion advanced by Dr. J. Janeway, U. S. Army, *may* be incorrect, viz.: "It is a well authenticated fact that rabid skunks are entirely free from the odor so characteristic of these animals, which could not occur if the secretion was not exhausted, and, forgetting its normal timidity, will attack any person or animal he may come in contact with, etc."

In my case the connections of the patient hoped everything from this theory of the skunk *not* being rabid, as it gave off the peculiar odor; and I have found so far that it is a popular belief among pioneers and hunters that none but odorless skunks are dangerous. I must side with Dr. Janeway, that "mephitic inoculation is not necessarily fatal."

I was visited May 26th by ——, woodchopper by occupation, who was suffering from acute diarrhœa. During the interview he spoke of some very queer sensations he had been having, principally about the head; but also affecting his whole body more or less.

I asked him if he had received any injury about the head; said not; and the only injury he had had for some time that amounted to anything, was the bite of a skunk some three years before—at the same time showing me a scar upon the forefinger of the right hand; the cicatrix was very well marked, and of a purplish hue. He said it did not worry him any, although it might possibly have something to do with the way he felt; but thought it amounted to nothing, as the animal when killed gave out the peculiar odor.

Mr. W——, father of my patient, who is a very intelligent man, told me of two cases that had been bitten at his ranch during the last year, and neither having any symptoms.

Also of a third who was bitten near his place since his own child was bitten, and who, he thought, was either going to be affected, or else was in great fear of it, judging from the way he acted.

I know also of a well-authenticated case, when, during a scout (year 1877), one colored soldier and two Indians were bitten by one skunk, neither of the three showing any symptom of rabies, so far as is known. The soldier, who was the first attacked, was bitten through the upper lip, and had to choke the animal to make it loosen its hold; he afterward kicked, clubbed, and finally killed it, not the least odor being given off, but the "timid animal" showing fight to the last.

This man is still in the service, and I know has

never had a symptom. In his case poultices of tobacco and whiskey were applied to wound. It may have been the applications that exempted him, or perhaps by going a little farther we might conclude that the negro is impervious to this poison.

I think, after reading Dr. Janeway's cases and looking back upon my own, that it is simply "hydrophobia" as laid down by authors on the latter malady.

FORT ELLIOT, TEXAS.

Reports of Hospitals.

THE CHILDREN'S HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

THE HYPERDISTENTION OF ABSCESSES.

THIS treatment of abscesses, first tried by Mr. Callender, of London, has been tried with excellent effects at this hospital. The cases were both of them in the service of Dr. H. Lenox Hodge. In the first, that of a large femoral abscess in a child suffering with coxalgia, the abscess was first opened with a bistoury, and a large amount of pus discharged by gentle pressure. A five per cent. solution of carbolic acid in water was then injected through a common syringe, with tube attached, so as to completely fill up the abscess to overflowing. This hyperdistention caused a number of cheesy, shreddy, and fibrous particles to be discharged. No constitutional symptoms followed, and no pus to speak of came out on the carbolized oil-dressing afterward. The injection was repeated thirteen days afterward. At no time after the first injection were more than a few drops of pus exuded.

In the second case the results, though fair, were not so immediate and pronounced as in the first case; the temperature showing a constant tendency to rise and the pus still continuing to be discharged.

SERIOUS BURN FOLLOWED BY CONTRACTION OF TISSUE—CURED BY NITRATE OF SILVER AND PRESSURE CAREFULLY APPLIED BY MEANS OF ROLLERS.

J. T. F., æt. 10, admitted to the hospital on January 14, 1879. This boy was badly burned, both above and below the elbow, and completely around the arm. Before coming to the hospital he had been treated for some six months at his home.

When first seen by the resident surgeon, Dr. J. M. Taylor, the burn was seen to have penetrated the muscles and showed pouting granulations of from two to three inches in diameter encircling the arm. The elbow was much contracted.

When Dr. John Ashhurst first saw the case he thought that amputation would have to be performed. A dressing of oxide of zinc was immediately applied, the discharge of pus at that time being considerable. On the 20th of January, six days after admission, the granulations had very largely diminished under the use of the nitrate of silver, and in some places above the elbow the skin had united, forming narrow patches of healthy epidermis. On January 28th the granulations were all healing rapidly. On February 16th the arm was entirely cured.

The resident surgeon, Dr. Taylor, took great interest in the case, and each day straightened the arm out carefully as far as it would go, seeking to make it straighter at each visit. The nitrate of silver was applied with great thoroughness and care, and after each application the arm was bound up pretty tightly with turns of the roller over an oakum pad.

RAPID RECOVERY FROM DEPRESSED FRACTURE OF THE FRONTAL BONE.

The following case occurred in the service of Dr. H. Lenox Hodge: T. C., æt. 4, while playing on towpath of a canal, was caught under his chin by the tow-line, and thrown violently down a bank estimated to be about twelve feet high. His head came in contact with a piece of cinder. This accident occurred at 6 P.M. on June 24th. The child was in the hospital by 8 P.M. Upon examination, a depressed fracture of the frontal bone about three-quarters of an inch above the superciliary ridge upon the outer edge of the frontal eminence was found. The wound extended for some seven lines, and was accompanied by much laceration of the soft parts. The pupils were widely dilated. The breathing was stertorous, and the condition that of general hebetude. The boy was not rendered insensible by the fall, but soon afterward lapsed into a comatose condition, only arousing himself to ask for water.

The treatment consisted in the coaptation of the sides of the wound with adhesive strips, and in placing over this a dressing of simple cerate. An ice-bag was applied to the head and a simple fever mixture given internally. The temperature immediately upon admission was 99° F. The next morning the boy was bright and cheerful; complained of no pain and asked for food. His pupils were contracted. As a precaution a catheter was passed, but its use was not again required.

June 26th.—Bowels not yet opened. A dose of castor-oil given.

June 27th.—Bowels still inactive, but boy very bright and enters readily into conversation on any topic.

June 28th.—Bowels and bladder both acting regularly. Wound healing. Boy takes nap or two during day and sleeps regularly at night. Patient left hospital soon afterward entirely well.

SCARLET FEVER FOLLOWED BY LOSS OF CO-ORDINATED MOVEMENT AND BY INFANTILE PARALYSIS—BEDSORES, ETC.

R. C., æt. 7, admitted August 24, 1878. Never had chorea or any other nervous trouble. Was always healthy and strong until he was about eighteen months of age, when he was attacked with scarlet fever. While convalescing from this disease he caught a cold, which was followed by "sore mouth," etc. At that time also he began to lose power of co ordination of motion and had to be retaught to walk.

In September, 1877, the paralysis began. There were also at that time severe pains in the abdomen, causing the child to scream repeatedly. These pains continued, and attacked the back of the child's neck and head. Ever since then the child has suffered considerably from headache. On the second day after the first symptoms of loss of co-ordination were manifested there was marked retention of urine. The boy was catheterized and has been incontinent of his urine ever since; the urine constantly dribbling away, much to the patient's annoyance. Phimosis exhibiting itself shortly after this; the boy was circumcised on September 3, 1878.

Prior to admission the boy had been treated by blisters to the spine and by electricity. During the

early part of 1878 there was paralysis of both motion and sensation in the extremities. Since admission the patient was treated with iron, quinia, and ergot. Manipulation of the paralyzed parts was also daily practised. This treatment was followed at once by marked improvement. In October of the same year the patient, while under Dr. Pepper's care, had an attack of bronchitis, which was treated by carbonate of ammonium, cod-liver oil by inunction, quinia, and milk-punch. Though recovering from this attack the patient's general health began to fail and his condition became complicated by numerous bed-sores. These increased to such an alarming extent that at the time of writing the head of the boy's left femur is exposed, and almost the whole length of the spine is bare of skin. The treatment at present is only directed towards maintaining life as long as possible.

TRIANGULAR DECUBITUS AS A RESULT OF TUBERCULAR MENINGITIS.

The patient, when admitted on the 20th of January, 1879, was extremely reduced in strength, and his head presented an enlarged, hydrocephalic appearance. His eyes were fixed and staring. His ears, nose, and the sinuses in his neck were discharging a thick, scrofulous pus. His body was much emaciated, and his extremities were constantly in a state of trembling. The decubitus was triangular and very characteristic. Treatment was of no avail. February 4, 1879, the patient was found in his foot-and-head position dead.

Progress of Medical Science.

THE THERAPEUTIC ADMINISTRATION OF LIME-SALTS.—There has been discord between chemists and physicians on the subject of the administration of lime-salts: the chemists denying the possibility of any general action on the system, and practitioners claiming that this action is sufficiently demonstrated by the valuable effects of the prolonged employment of phosphate of lime, or of calcic mineral waters. Perl has endeavored to solve the problem by experiments, which he details in the German *Archives of Pathological Anatomy*. He administered to a female dog a fixed quantity of very dilute chloride of calcium, and minutely analyzed the urine and fæces. Without entering into the detail of these difficult experiments, it may be enough to say that the salt administered was decomposed in such fashion that the chlorine appeared in the urine and the lime in the fæces. Under the conditions of the experiment, there was a very slight absorption of the lime-salt, which, if accepted, puts an end to the discussion and answers the chemical objections, while it justifies the employment of a method of treatment which, from time immemorial, has been employed by practitioners in rickets and tuberculosis.—*The Practitioner*, July.

EXTIRPATION OF A RETRO-PHARYNGEAL GOITRE. M. Boeckel, of Strasburg, reports the case of a woman, aged 25 years, who applied to him in November, 1878, for the relief of a voluminous tumor in the right side of the neck, and of a second tumor situated behind the pharynx. The first tumor made its appearance in 1875, but only commenced to grow rapidly in the early part of 1878. The respiration was not impeded. The skin of the neck was tensely stretched, but was of a normal color. The larynx was crowded to the left. There was neither pain nor fever, but the movements of the head were impeded. A cyst of the thyroid gland was diagnosed and evacuated, but the retro-pharyngeal tumor was not affected by the operation. As the cyst soon filled again, a radical operation was performed in December. An incision, four and a half inches long, was made along the anterior border of the sterno-mastoid muscle under the carbolic spray, and the cyst was punctured with a bistoury, drawn out and removed. Ten ligatures were required to control the hemorrhage. The retro-pharyngeal tumor was removed with the large cyst, and was found to be a cyst connected, but not communicating, with the larger cyst. M. Recklinghausen, who examined the cysts, believed that they were formed at the expense of the thyroid tissue. In January the wound had closed completely, and the patient was discharged cured.—*La France Médicale*, April 12th.

IMPROVEMENT OF AN OLD OPACITY OF THE CORNEA UNDER THE INFLUENCE OF A GONORRHŒAL OPHTHALMIA.—Dr. Chevallereau reports the following case: A man, who presented a large opacity on the right cornea, dating from his childhood, was subject to attacks of subacute blepharitis, which, in accordance with a popular prejudice, he treated by bathing the eye in his own urine. The last time he had occasion to use this treatment he happened to be suffering from gonorrhœa, and the result was a violent attack of gonorrhœal ophthalmia. This dangerous complication yielded to an energetic treatment, and the patient then found that he could see better than before. Examination showed that the opacity has diminished very markedly, both in size and in density.—*Annales de Dermat. et Syph.*, vol. x., No. 3.

THE ACTION OF SCLEROTINIC ACID ON MEN.—The investigations of Nikitin seemed to demonstrate that sclerotinic acid could be substituted with advantage for ergot, in all cases in which the latter is now employed, but the following *résumé* of the results obtained by Dr. Kobert, of Halle, from an extensive trial of the acid, show that its supposed advantages are, to say the least, exceedingly problematical:

1. In severe pulmonary hemorrhages the remedy, given in doses of three grains five times a day, proved absolutely inert. In the case of a patient who expectorated daily for two months a small quantity of blood, the effect of the acid was exceedingly doubtful, and by no means so marked as that of ergot. Subcutaneous injections of a grain and a half, both of the free and of the neutralized acid, caused intense pain, and violent inflammation of the skin requiring the constant local use of ice for several days.

2. In a case of chronic multiple hemorrhages into the skin and the mucous membranes, the acid, in doses of fifteen grains *pro die*, proved entirely useless.

3. In two cases of disease of the spinal cord, with spastic manifestations in the lower limbs, the acid was administered for weeks without the slightest improvement in any of the symptoms. At the most, the urine was increased slightly in quantity.

4. In a case of Basedow's disease, the first powder (three grains) caused such restlessness and cardiac anxiety, that the remedy had to be discontinued at once.

5. In the cases of two tabetic patients, as well as of several other persons, to whom the drug was administered for the sake of studying its action on the subjective condition and on the central nervous system, it was given for several weeks without the slightest effect. No person could be persuaded to submit to a continued subcutaneous administration of the drug.

6. A woman, who took the acid continuously for over three weeks, complained on the first day of the fourth week of formication in both great toes, and on the following day in both little fingers also, which rapidly increased to complete numbness of the affected parts. When the drug was discontinued the symptoms disappeared, but they reappeared as soon as the former doses were resumed; smaller doses, however, were borne without difficulty.

To exclude the possibility of failure from impurities in the acid, a fresh preparation was made in Halle, with all possible care. On animals this fresh preparation produced the effects described by Nikitin, but on men it proved as inert as the ordinary drug. In no case did it produce contractions of the intestines, abdominal pains, or diarrhœa; an action on the uterus seemed also wanting.—*Centralblatt für Gynäk.*, May 10th.

Nitrite of Amyl in Chloral Poisoning.—The antagonism between nitrite of amyl and chloral hydrate is well illustrated in the following case of chloral poisoning, related by Dr. Coghill in the *British Medical Journal*, June 28th. A gentleman, aged sixty-two, late in the evening of April 23d, took a large, but unfortunately unascertained dose of his favorite anodyne, chloral. Within a few minutes he became completely insensible. When Dr. Coghill saw him, two hours later, artificial respiration had been kept up for some time, with the effect of inducing feeble, gasping respiration, at the rate of four per minute; surface was cold and deeply cyanosed; pupils strongly contracted; pulse eighty, full, but soft and compressible. Twenty drops of nitrite of amyl were administered by inhalation, which induced an immediate return of warmth and natural color to the surface, even of the extremities. The respirations became deeper, and gradually increased in frequency. The amyl was repeated in a smaller dose in about two hours, with permanent effect. The next morning the general condition had improved, but consciousness had not returned. It was found impossible to administer nourishment by the mouth, and nutritive and stimulant enema were consequently resorted to. After the second enema he became sensible, recognized and spoke to those around him, and swallowed some food with little trouble. He continued to improve until 9 P. M., when he suddenly started up, as if from sleep, and fell back dead.

Dr. Coghill accepts Liebreich's theory of the decomposition of chloral in the system into chloroform and formic acid, attributing its effects to the chloroform. The state of the pupils, he thinks, depends upon the manner of administration: as with chloroform, when an overdose is taken, the respiratory centres are paralyzed, the pupils *contracted*, but the pulse not affected; but when the poisoning is due to too frequent repetition of smaller doses, the cumulative action of the drug is manifested, and we find the heart yielding earlier than the respiration, and the pupils *dilated*. He suggests that nitrite of amyl will be the appropriate remedy, when the drug has been administered in such quantities as to act rapidly on the respiratory centres, *with contracted pupils*, and that strychnia should be given when the drug has acted slowly as a cumulative poison, when the heart has succumbed, *and the pupils are found dilated*.

Faradism and Suspended Animation.—Dr. Althaus recommends the faradic current as a test for suspended animation. Three hours after death, every trace of farado-muscular irritability is found to have disappeared, and the most powerful current will remain absolutely ineffectual; while in suspended animation the muscles respond freely to a current of moderate force.—The *British Medical Journal*, June 28, 1829.

Beef and Ice Cream.—Dr. Tucker recommends a combination of beef and ice cream as an article of diet for invalids. He uses cream, 120 grms.; sugar, 30 grms.; ext. vanilla, 8 grms.; beef-juice, 8 grms. Johnston's beef-juice was generally used, but that squeezed from a beefsteak will answer. Any confectioner can make it, or it can be prepared at home.—*The Chicago Medical Journal and Examiner*, July, 1879.

Etiology of Alopecia Areata.—Dr. Hans Büchner contributes his share to this vexed question. His conclusions are as follows:—1. The hypothesis that the loss of hair in alopecia areata is due to faulty innervation of the trophic nerves, is untenable on anatomical and physiological grounds. 2. The theory which attributes the disease to diminished nutrition with lessened growth of the hair is no explanation, but only a description of the affection. 3. The fungus theory is the only one which is justifiable in the present condition of our knowledge. The lack of microscopic proof of the presence of fungi up to the present time does not invalidate this hypothesis, because, under present circumstances, small single-celled non-colonized schizomyceton may escape observation. Certainty in this question can only be attained by careful researches in cultivation together with inoculations.—*Philadelphia Medical Times*, July 19, 1879.

Quinine in Gout.—Dr. Schoenemann has used quinine to cut short the paroxysms of gout, over which disease it has, in his estimation, as much power as over intermittent fever. From among the half-dozen cases he has treated with this drug he gives the notes of one, a typical case. For two days and nights the patient had suffered so intensely as to be deprived of all sleep. On the third evening Dr. Schoenemann was called in, and endeavored ineffectually to relieve pain and induce sleep by fifteen-minim doses of tinct. opii every half-hour. The next day the joint was painted with tr. iodi., and quiniæ sulph., grs. xv., with sodæ bicarbonat. ʒ ij., given in divided doses during the day. Patient slept all night, having only occasional and light darting pains; in the morning he got up, put on his boots and attended to work without suffering any inconvenience.—*Pacific Medical and Surgical Journal*, July, 1879.

Early Syphilitic Affections of the Nervous Centres.—Prof. Mauriac closes a long and able paper on this subject, with the following deductions from the facts and researches at his command:

1. Syphilis may attack the nervous centres at a very early period after the initial lesion.

2. The early cerebro-spinal lesions are those which develop during the virulent period of the malady, that is to say, during the first two or three years.

3. There are degrees in this precocity of the cerebro-spinal syphiloses: the first include those which set in within the first twelve months; the second those which develop in the second or third year of the constitutional malady. Statistics seem to show that those of the first degree are more common than those of the second.

4. Among the early visceral localizations of syphilis, those in the cerebro-spinal system are incomparably the most numerous.

5. They are also the most dangerous. Their gravity does not increase with their diathetic age; those which

develop during the first months of syphilis are as formidable as those which belong to the more advanced stages of the malady.

6. All the forms, all the degrees, all the phenomenal combinations that constitute the symptomatology and the processus of the localizations of syphilis in the neural system, are met with in the early as well as in the late cerebro spinal syphiloses.

7. Certain symptomatic complexes, however, seem to predominate. The most frequent are those which consist in an attack of hemiplegia, involving the whole of one side of the body.

8. Among the attacks of hemiplegia, the syndroma comprising right hemiplegia and aphasia is the most common.

9. The paralytic forms are much more common than the convulsive or epileptic, in the early cerebral syphiloses.

10. In the cerebro-spinal syphiloses the psychical troubles and the inco-ordination of movements are never systematized as they are in mania, general paralysis, and locomotor ataxia.

11. The absence of systematization in the cerebro-spinal syphiloses must be regarded as one of their chief characteristics. The only exception is in the case of the syndroma of right hemiplegia and aphasia.

12. Early localizations of syphilis in the spinal cord are much less common than in the encephalon.

13. The lesions which seem to belong to the early cerebro spinal syphiloses are diffuse or, more frequently, circumscribed hyperplastic effusions into the cortical layer of the brain and the pia mater, and changes in the Sylvian arteries with consecutive ischæmic softening.

14. In some cases of early cerebro-spinal syphiloses that terminated fatally, no lesion was found, but at that time the existence of arterial syphilis had not been recognized. It may be presumed that death had resulted from sudden anæmia of the nervous centres that are essential to life.

15. With regard to the etiology of the early cerebro-spinal syphiloses, only very vague conjectures can be advanced. In most of the cases, the initial lesion as well as the consecutive cutaneous and mucous manifestations were very mild in character.

16. The general cause of the constitutional malady is not modified by the appearance of early localizations in the nervous centres. The other manifestations develop before, during, and after the localization in the neural system, without presenting any deviations from their usual forms, degrees, course, or topography.

17. The precocity of the cerebro-spinal syphiloses furnishes no special indication with regard to treatment. Whatever may be the age of the constitutional malady, the localizations in the nervous centres demand the same specific medication. The peculiar conditions of each case furnish the secondary indications relative to the choice, doses, and combinations of the two specific agents.—*Annales de Dermatol. et de Syphilig.*, Vol. X., No. 3.

On the Treatment of Chorea.—Dr. Hayden believes the attack is in most cases directly traceable to fright or other emotional excitement of a depressing character, operating upon a feeble and nervous constitution, at a period of life when the receptive faculties are most sensitive. He therefore concludes that phosphorus and strychnia combined—the former a nerve nutrient of recognized value, and the latter a nerve tonic of great potency—may prove efficacious in the treatment of chorea. As yet his experience of this plan of treatment has been very limited, extending only to three cases, but so far it has been eminently satisfactory. The strychnia and phosphorus were administered in 3 ℥. doses of the liquor and ethereal tincture, thrice a day, so that the total amount of each drug given was 9 ℥. The patients were children of nine to eleven years of age.—*The Practitioner*, July, 1879.

The Therapeutic Value of Hydrocyanic Acid.—Dr. Macdonald calls attention to the value of hydrocyanic acid in arresting the night cough of children. In a case of sixteen months' standing, where the bromides and change of air had been prescribed in vain, relief was afforded in forty-eight hours by the administration of the acid. The good effects of the remedy were especially apparent in the night attacks. It was particularly noticed that, when a paroxysm came on, it ceased suddenly and unexpectedly five minutes after each dose. Within a week a cure had been effected, and the patient is now in the full enjoyment of robust health.—*The Practitioner*, July, 1879.

Preparation of Imitation Kumyss.—Fill into a strong champagne bottle good, fresh unboiled cow's milk to such a height, that after the addition of 30 grammes (1 oz.) of sugar, there may still be at least an inch of empty space below the cork. Before corking, add a piece of fresh compressed yeast, or a teaspoonful of good beer-yeast. The contents of the bottle must be well shaken repeatedly, and then placed in the cellar, where they are to be turned up and down a few times during the day. The mixture is ready on the fifth day, and may be drunk to about the twentieth. It is best to prepare about six bottles at a time, refilling each after being emptied, so that the treatment once commenced may not be interrupted. Care should be observed in opening the bottles, as the contents are apt to foam over. A good milk-wine, or kumyss, should have a homogeneous appearance and the consistency of thin cream, should effervesce when poured out, and be of an acidulous, agreeably vinous odor and taste; it should not be full of lumps, or taste like buttermilk. At first it produces looseness of the bowels, but this effect soon passes off.—*New Remedies.*

Syphilitic Pott's Disease.—M. Verneuil showed at his clinic a child suffering from caries of the spine, which he considered to be of syphilitic origin. The previous history of the case was imperfect, but the evidences of the constitutional taint were convincing. Attention was called to the rarity of, and difficulty of diagnosing this affection, and mention was made of a similar case occurring in the same service. In the last case the happy influence of specific treatment confirmed the diagnosis. Preparations were also shown which demonstrated the gummy infiltration into the vertebral substance. The diagnosis in these cases is always uncertain; some peculiarity in old cicatrices, or in the openings of fistulæ, or the condition of the glands, is sufficient to call attention to the possibility of the syphilitic diathesis, and is the indication for treatment.—*Annales de Dermatologie.*

Chicago Medical Journal and Examiner.—Drs. F. C. Hotz and E. F. Ingals have retired from the editorial staff of the above journal. Their places are filled by Dr. N. S. Davis, Dean of the Faculty of the Chicago Medical College, and by Dr. D. R. Brower, one of the Faculty of the Woman's Hospital Medical College of Chicago.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 16, 1879.

LITHOTRITY WITH EVACUATION OF THE FRAGMENTS.

I. THE DEVELOPMENT AND PRINCIPLES OF THE OPERATION.

THE recent modification in the method of treating stone in the bladder by lithotrity, with which the name of Professor Bigelow is so prominently associated, bids fair to make lithotomy a rare operation by notably restricting its field of application, and to diminish the proportion of cases in which patients return with a second stone developed about an unremoved fragment of the first. The great objection to lithotrity as heretofore practised—that is, by repeated crushings of short duration, at intervals of a few days, with unaided escape of the fragments through the urethra—lay in the fact that the large sharp fragments retained in the bladder sometimes tore and bruised it to an extent which not only aggravated the pain and distress of the accompanying cystitis, but actually imperilled the life of the patient. Lithotomy, while free from this objection, involved the risks incident to an extensive incision through important parts. The new method of lithotrity happily avoids the risks of the old method and of lithotomy, by removing the stone at a single sitting without the aid of the knife. Its field, therefore, embraces all the cases which could be properly treated by the old method, and in addition many of those which it was formerly considered safer to treat by lithotomy. It seems probable that the latter operation must now be restricted to cases presenting some important urethral or prostatic complication, and to the removal of very large hard stones and of stones in infants and youths whose urethras are too small or too sensitive to allow of prolonged instrumentation. Fortunately, this latter class is the largest of the three, is the one in which the risks of lithotomy are lowest, and is that in which the rate of mortality is very small. As the suprapubic operation has been considered the safest for exceptionally large stones, the rule of treatment, according to our present knowledge, is: perineal lithotomy for the young and some specially complicated cases; supra-pubic lithotomy for exceptionally large hard stones; rapid lithotrity, with evacuation, for all others. The outcome of Prof. Bigelow's modification then, is to enlarge the field and diminish the risks of lithotrity. Let us see in what the modification consists, and how it has been brought about.

The rule of practice in lithotrity was to retain the lithotrite in the bladder for not more than two or three minutes, during which time the stone was to be caught and crushed as frequently as possible. Then, after an interval of a few days, during which the patient passed unaided, and with more or less pain and anxiety, such fragments as might be carried through his urethra by the stream of urine, another short crushing, and so on until all was removed. The first formal step in the road which has led to the present mode of operation was made about fifteen years ago by Mr. Clover, and was an attempt to remove the fragments through a catheter immediately after each crushing. He devised a rubber ball and glass attachment to be filled with water and fitted over the end of the catheter in such manner that by alternately compressing and relaxing its sides, the water could be forced into the bladder and sucked out again, bringing with it the fragments. The idea—an old one, moreover—was essentially the same as that of the washing-bottles now in use, but the instrument was inferior to them in not properly preventing the return of fragments into the bladder after they had been once drawn out. The catheter entered at the most dependent portion of the bulb, and although its end projected one or two inches into the bulb, the adjoining portion of the latter was so narrow, and the currents so vigorous, that this was an insufficient protection. Nélaton substituted a metallic pump for the rubber bulb, increasing the already too great suction of Clover's stiff ball, and Tillaux hung a perforated valve over the end of the catheter to remedy a minor defect, but the instrument remained generally ignored and unsatisfactory, not simply because it did not properly do the work expected of it, but because that work was relatively insignificant and unimportant. It was practically valueless because it was not associated with immediate and complete fragmentation of the stone. Moreover, it contained no new and important principle, and was a commonplace adaptation of common mechanical means to obtain a result which could be, and was, equally well obtained by the use of a catheter and syringe, with or without pressure upon the abdomen during the escape of the injected water.

The next modification was an attempt to shorten and dilate the route to the bladder, and remove the stone at a single sitting by the use of powerful litho-

clasts. This modification was Dolbeau's *perineal lithotrity*. He cut through the perineum to the membranous urethra, dilated the prostatic portion of that canal, crushed the stone, and washed out the fragments. This met the indication of removing the stone at a single sitting, but it involved an incision and violence to the neck of the bladder, which were only somewhat less severe than those incidental to lithotomy. It was, in fact, a modification rather of lithotomy than of lithotrity, and, notwithstanding its ardent support by Dolbeau, it was received but coldly.

The final step was taken by Prof. Bigelow, and it is interesting to note how in this case, as in so many others, men have played about a great fact until at last one of them fairly stumbles upon it in his search for something else. In using this expression we do not mean to detract in any manner from the credit which belongs to Prof. Bigelow. He saw the fact, recognized it, and promptly made use of it. The fact was the tolerance of the bladder to the use of instruments within it. This tolerance, the fact that a lithotrite can be worked for an hour or two in the bladder without inflicting serious injury upon it, is the centre upon which the new method rests; and beside it, all modifications in the jaws and handles of lithotrites, and in the shape of washing-bottles, are matters of minor importance. That this tolerance should have remained so long ignored is to be explained only by the benumbing effects of authority and tradition. The teachers said: "Never retain a lithotrite more than three minutes in the bladder," and that dictum ruled lithotrity so nearly to its ruin that Sir Henry Thompson, less than eighteen months ago, declared in the discussion in the Royal Medico-Chirurgical Society, following his report of 500 cases of stone, that it should be restricted to the treatment of such stones as could be removed in two or three crushings; and Sir James Paget, in the same discussion, said the rule should be lithotomy, lithotrity the exception.

Many lithotritists went beyond the three-minute rule, but they did it only occasionally and, as it were, under protest; lithotomists spent half an hour sometimes in the search for fragments; perineal lithotritists spent even more in crushing and washing; general surgeons tied catheters into the bladder, and all physicians were familiar with the fact that a stone might lie in the bladder for months without giving rise to cystitis, and yet no one, until Prof. Bigelow, drew what seems now such a palpable inference. Sir Henry Thompson claims that he did so; but, so far as we can judge, he did no more than many others; that is, he departed, in exceptional cases, from the rule of short sittings, and was perhaps drifting slowly, as were also others, toward more prolonged crushings under ether; but it was only a drift, and was very different from Prof. Bigelow's sudden recognition of a principle of general application.

Prof. Bigelow, feeling the necessity for removing the fragments after a crushing, set himself to improving the washing apparatus, and did it in the very efficient manner to be hereafter described. In his first case there were three sittings at intervals of seven and twelve days. At the first sitting he crushed and did not wash; at the second he crushed under ether and washed, removing "a large mass of fragments;" at the third he crushed again, apparently, and washed, removing "a few fragments." Up to this moment he had done only what he and others had done before in exceptional cases, he had largely overstepped the rule of short sittings, and, in addition, he had washed with an effective apparatus. But in doing this he had encountered and recognized the fact of the bladder's tolerance, and he profited by it to remove the stone in his next case, five months afterward, at a single sitting. He had then enunciated the principle; he had put lithotrity upon a new basis; he had *fait école*.

It is singular, in view of the paramount importance of this principle, to see Prof. Bigelow insist so strongly upon the merits of certain of his instrumental details and modifications, an insistance which only draws attention away from the principal and most meritorious point. What earthly difference can it make to him whether it is generally considered easier to lock the lithotrite by a turn of the wrist or by a movement of the thumb, when both are so easy? or whether others use a male jaw with lateral grooves, or a female jaw with a large fenestra, provided neither becomes impacted? These are matters of individual appreciation or preference which he can certainly afford to disregard.

In like manner, the attempt to give the operation a new name conveys a doubt of its ability to force recognition of what is original in it, and implies a failure to appreciate its real position. The right of the *method*, which includes all the various *procedures* for crushing a stone, to the name lithotrity is established by the baptism of its originator and the acceptance of all surgeons, and this latest modification, which departs in no manner from its central idea, but only perfects its processes and enlarges its field of usefulness, is the natural heir to the title and to the honors of its predecessor. There can be no question but that in due time when "lithotrity" is spoken of, the removal of a stone at a single sitting will be meant, and Prof. Bigelow's connection with it does not need to be fortified by the substitution of a new name for the old one. Indeed, the new name seems to have been an afterthought, inspired five months after the publication of Prof. Bigelow's article by a case in which he removed a large number of small calculi without crushing them, an operation for which, if a new name is needed, *litholapaxy* (evacuation of stone) is certainly well chosen.

It is too soon to speak of the mortality of the new method except from a theoretical standpoint. Bigelow has reported only eight or ten operations; Van Buren

and Keyes twelve or thirteen. All of these, with one exception, we believe, were successful. The most that can now be said is that as the operation inflicts the minimum of violence, and, by removing the stone at once and completely, places the bladder immediately in the most favorable condition for recovery, it avoids the most important dangers of the previous methods. It will diminish the mortality in the cases heretofore treated by lithotrity, because it will save those in which a fatal issue is the consequence of the irritation caused by the sharp fragments; and it will save many of those cases which would have died under lithotomy from loss of blood, shock, or pyemia. The theoretical reasons for believing in its value were authoritatively presented in the very able and interesting paper upon this subject which Prof. Van Buren contributed to THE RECORD about a year ago, and in which, referring also to the above-mentioned opinions of Sir James Paget and Sir Henry Thompson, he showed how extensively they would require to be modified in view of the advantages offered by the new method of lithotrity.

Sir Henry Thompson's open letter to Dr. Van Buren, published in THE RECORD, May 24, 1879, shows how thoroughly he appreciates these advantages, and his claim to a share in the credit of the introduction of the method is a none the less sincere compliment for being, in our judgment, unallowable. The credit belongs to Prof. Bigelow and to America, and it gives us much pleasure to mention in this connection the hearty and generous reception of the new method by the lithotritists of our own city.

We propose to consider at another time the different instruments employed in the operation.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 28, 1879.

DR. JOSEPH W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

RENAL CALCULI OBTAINED FROM CAMELS.

DR. LIAUTARD presented specimens of renal calculi which he had removed from the kidneys of camels.

IRREDUCIBLE DISLOCATION OF INDEX PHALANX.

DR. FRED LANGE presented a patient on whom he had performed, for an irreducible dislocation of the first phalanx of the index upon the dorsum of the metacarpus, the operation of opening the joint and lifting the interposed capsule. The smallest possible cord of the capsule, which was torn from its attachment to the metacarpus, had interposed itself like an apron between the dorsum of the metacarpus and the border of the articular plane of the phalanx, doubtless in consequence of a strong hyperextension. The boy had received a kick against the top of the index from a foot of one of his comrades. The incision of the torn part of the capsule did not allow of the reposition of the bones. As previously, in a similar dislocation on the thumb, he was obliged to incise and draw outward the light lateral parts of the capsule, when reduction of the dislocation was effected without difficulty. A fair result was obtained. Experience had proved that the same operation to fulfil the same indication could be performed upon the largest joints if strict antiseptic treatment was used.

GUNSHOT WOUND OF THE INDEX FINGER—EXCISION OF PHALANGES.

Dr. Lange also presented a small and somewhat interesting specimen taken from a patient, who, in the end of last year, shot himself with a revolver in the region of the head of the first phalanx of the left index. He was treated in one of the New York dispensaries, and the wound healed, as he says, almost without discharge, in a fortnight. Thus the projectile was healed aseptically. The joint remained stiff, grew more painful, the bones became thickened, and the patient was obliged to give up his professional occupation as an engraver. Some months after the injury, and about two and a half months ago, when the patient applied to the German Dispensary, Dr. Lange performed excision of the joint, and in spite of the comparatively extensive and intense injury, the latter originally had not caused any suppuration. In the almost obliterated articular cavity there was only a minimum quantity of a lead-colored fluid, of about the consistency of synovia. That color pervaded at the same time the diploë of the bones, and he removed the whole of the second and a part of the first phalanx. Perhaps in consequence of too much precaution the operation grew somewhat extensive. The wound healed quickly, and after the second week the patient, by means of an articulated splint, had practised active and passive movements. The finger was considerably shortened, but it was useful and of much value to him in his professional occupation. The last phalanx had a small amount of active movability. The new formation of bone was a defective one, and he had the impression that there was somewhat like a small meniscus between the first and last phalanx. The subperiosteal excision, because of the lightness of the periosteum, was not made without trouble, all the more as he had, instead of an elevator, only the blade of a pair of scissors at his disposal. Perhaps, especially in this location, the removal of the periosteum, including the thin layer of the bony surface, after the suggestion of Prof. Voigt, would be suitable, in order to surely include the layer of bone-forming cellules, the so-called osteoblasts.

EXCISION OF THE LOWER END OF THE HUMERUS.

Dr. Lange also exhibited a patient on whom, just five months ago, he had performed excision of the lower end of the humerus for the following injury:

The boy, while standing on an elevator, had put his elbow upon the baluster. In mounting to a higher floor the elbow was squeezed between the baluster and a prominent beam. We saw the patient in consultation with Dr. Buedder about three hours later, and found the following injury: The dorsal side of the joint occupied by a large lacerated and contused wound. Skin and muscles ecchymosed to a large extent, the joint widely opened, the epiphysis humeri entirely separated from the diaphysis and was torn out from the joint, so that its articular surface looked forward. The only connection was with the internal epicondyle. The tendon of the triceps was saved, the articular parts of the forearm, though contused, were not fractured. In spite of the skin being lacerated in

the whole circumference of the joint, except a narrow bridge, no large vessels or nerves seemed to have been injured; and this induced him, confiding in antiseptics, to propose a conservative treatment, to which his colleague agreed. He removed the epiphysis and the lower prominent part of the diaphysis, which was contused, the canaliculi Haversiani being filled with extravasations. He drained the periosteal cylinder at the lowest point, made several counter-incisions at the boundaries of the loosened skin, and treated the case antiseptically as strictly as possible. Immobilization was effected by a dorsal plaster-of-Paris splint with shoulder-cap, at which a slight extension was exercised in order to prevent its slipping above and causing strangulation in the axilla by pressure of the bandages.

The discharge was very abundant; a large portion of skin, connective tissue, and of muscle sloughed, and the first ten days he was obliged to dress the limb every day. A part of the skin mummified completely upon the wound, and was lifted up after a fortnight by strong and healthy granulations. In the fourth week he made transplantations upon the extensive but now superficial wound, in order to hasten healing and thus allow orthopædic after-treatment as soon as possible. In the sixth week an immovable silicate dressing was applied, and passive movements were made methodically. Those movements were continued after the third week, at every dressing. In the third month cicatrization was perfect and some activity existed, and the result showed that the boy had regained nearly the normal use of his arm. The excision was at least 90 degrees. The articular part of the humerus had developed almost in its normal shape, and there was no preternatural mobility of the joint, of which one could be convinced by the fact that the patient was able to keep his arm elevated, at the same time flexed in the elbow-joint, while pronating the hand.

While patients with new elbow-joints could often expend some strength, keeping the elbow close to the trunk, turning the volar surface of the joint in front, and supinating the hand, they might not be able in the opposite positions even to stand the weight of the forearm; and if so, often a slight tap with the finger was sufficient to make the arm fall down with a feeling of complete weakness, probably because in that position the bones of the forearm lost their lever power which normally was secured by the ginglymoid shape of the joint, the normal bony obstructions, and the tension of the ligaments. He omitted those cases of undue mobility of the joint in which a good fulcrum did not exist in almost any position of the arm. Those cases almost never occurred if the excision was made strictly subperiosteal, but he called attention to those cases of slightly increased mobility of the joint, which give a certain amount of use and power in the new joint, and, according to his experience, occurred rather frequently in excisions for scrofulous affections of bones and joints *in adults*. In those cases at the same time there hardly ever existed the possibility of pro-and supination in the regular form. Still those patients made pro- and supination, but by displacing both bones, radius and ulna, from the articular part of the humerus. In the case presented there existed some motion of the head of the radius in the ulno-radial joint, which probably would be more extensive if the head was not fixed by the tightly adherent cicatrix.

The experience gave the practical indication to keep the new bones in a certain amount of contact from a certain stage of their development, in order to secure as large a joint surface as possible, as short ligaments as possible, and that in as early a stage as possible, especially in those cases in which an extensive formation of new bone was not expected.

The apparatus worn was regarded as of some usefulness, because it perfectly fulfilled one indication of great importance in the after-treatment of elbow resections, by taking off from the joint the weight of the forearm, and by keeping the forearm, as a rule, in a bent position. He considered that point as an important one, because only in that position the articular surface of the ulna faced the cross cut of the humerus. From that position he had made a kind of passive extension by causing the patient to lift such heavy weights that the power of the rubber strips, and of the muscular resistance was overcome to a slight degree. The flexion to an acute angle was left to be brought about by muscular activity. An articulated silicate dress, ending at the upper arm, has newly been recommended by Dr. Genzmer, in Halle. Those lower rubber strips he tried first, when assistant of Prof. Esmarch, by his recommendation, in combination with the well-known apparatus of Bidder. They were, however, not so strong that the arm was kept in a right angular position, and they had only to support the muscular power of that patient, who, in consequence of constriction for bloodless operation, had got a perfect and very obstinate paralysis of the plexus brachialis. The only case of such an accident he saw in Kiel.

Furthermore, he emphasized that the shell for the upper arm ought not to be applied tightly. The upper strips prevent it very well from slipping down, and mediate very sure the transposition of the weight of the forearm to the shoulder. If we would dispense with the shoulder part and transfer the weight to the upper arm only, the shell would have to be applied tightly, and this easily gives rise to troubles of the circulation, especially in the beginning, at which time the circulation was still a weak one, or even wounds existed.

With reference to the elbow-joint,

Dr. Briddon doubted the propriety of subperiosteal excision, because by so operating it was much more difficult to obtain a mobile articulation than by the old-fashioned method of resection. There was an exuberance of bony growth that interfered with subsequent motion. With regard to the flail-like joint, it was probably much more useful than patients usually supposed.

He then referred to a case in which the forearm could be swung about and made to assume almost any position. A stiff angular splint was applied, and, by the aid of that, the patient was able to perform considerable labor. A few months afterwards the patient discovered that she could perform her work without the splint, and from that time she continued to use her arm without any artificial support. He thought the usefulness of the arm was greater than it would have been had a less amount of bone been removed, and more limited motion obtained. He believed that surgeons many times failed by reason of removing too little bone. The result in Dr. Lange's case was remarkable in view of the extent of the injury.

Dr. Lange remarked that after subperiosteal excision there was a greater indication for early passive motion than after the other operations.

MICROSCOPICAL STUDIES ON ABSCESS OF LIVER.

Dr. C. Heitzmann exhibited microscopic specimens illustrative of suppuration of the liver, which subject

had been studied in his laboratory by Dr. J. C. Davis. Dr. Davis had found clinically that, with the exception of traumatic suppuration and that caused by parasites, in all probability abscess of liver was always due to embolism, mainly of the portal veins. The inflammation started invariably in the interstitial connective tissue, and consecutively a part of, or a whole lobule, or even a number of neighboring lobules, might be engaged in the formation of an abscess. In the interstitial connective tissue, the living matter, both in the protoplasmic bodies and in the basis substance, was considerably augmented, and appeared in the shape of coarse, shining, homogeneous granules, which themselves were transformed into inflammatory or medullary elements. The elements were at first uninterruptedly connected with each other by means of delicate threads of living matter, and only after rupture of these threads had taken place the medullary elements became isolated, and then represented pus-corpuscles. The liver epithelia first exhibited a coarse granulation and augmented nuclei from the increase of living matter. A number of them might be fused together and divided again into medullary elements, which, if isolated, also shared in the production of pus-corpuscles. No emigration of colorless blood-corpuscles could be made out. Around an abscess of longer standing, a connective tissue capsule was formed by the medullary elements, which in that instance remained connected, became spindle-shaped, and were partly transformed into a striated or homogeneous basis substance.

FATTY DEGENERATION OF THE PLACENTA.

Dr. Putnam-Jacobi presented a placenta for the purpose of obtaining further knowledge regarding the now mooted question of fatty degeneration of that organ.

A woman who had been married five years, and, to her knowledge, had never been pregnant, ceased to menstruate six months ago. At the first two menstrual epochs succeeding the cessation of menstruation she suffered from violent attacks of sick-headache. Except for that, her general health was good, and she gave none of the usual signs of pregnancy. In the fourth month after the cessation of menstruation she sustained a fall. It was not severe, but was followed by a sensation "as if something had been torn away from the inside." She, however, experienced no special pain, and had no special symptoms otherwise. She had a moderate enlargement of the abdomen, which she had noticed for only about three months after the cessation of menstruation. On examination, a tumor was found in the abdomen, at least two fingers' breadth below the umbilicus, and corresponding in size to a uterine tumor at the fourth month of utero-gestation. Placental souffle could be distinguished, but the fœtal heart was not heard, nor had she felt anything like fœtal movement. Dating from the cessation of menstruation, the presumption was that the fœtus was destroyed about the fourth month of intra-uterine life, and the size of the tumor corresponded with that view. That diagnosis was confirmed a few weeks later, when miscarriage occurred, which resulted in the delivery of a macerated fœtus of about four months. The point of special interest in the case was the condition of the placenta. It was delivered almost immediately with the fœtus. It was small, the blood-vessels were shrivelled, there was no large apoplectic clot, but through it were disseminated very small points of apoplexy. About three-fourths of the placenta was converted into a yellow and apparently fatty mass.

Dr. Heitzmann remarked that the specimen, like others which he had examined, presented the gross appearances of fatty degeneration; but the microscope had revealed the fact that it was an amyloid change.

He had the day before examined the *seventh* specimen of so-called fatty degeneration of the placenta removed by miscarriage at the seventh month, and it was found to be the seat chiefly of waxy degeneration, with only a slight amount of fatty change.

FALLOPIAN PREGNANCY WITH CORPUS LUTEUM IN THE OVARY UPON THE OPPOSITE SIDE.

Dr. E. G. Janeway presented a specimen that illustrated extra-uterine fœtation occurring with the fœtus in the Fallopian tube opposite to the ovary in which corpus luteum existed. The uterus, with its appendages, was taken from the body of a woman thirty-two years of age, who had been sick about fifteen hours, the chief symptom being pain in the abdomen. She died in a state of collapse.

At autopsy about two quarts of blood were found in the abdominal cavity, partially coagulated, the coagulation being most marked in the portion contained in the pelvis. In the *left* Fallopian tube, at its anterior border, was seen a small linear rupture, not more than one-eighth of an inch in length, from which the blood escaped.

The embryo was not more than one-eighth of an inch in length, and was simply a small, whitish mass upon the alantoid vesicle. The entire sac was about an inch in length, and laid in a distended Fallopian tube, which was a trifle larger, and contained some blood-clots in its interior.

The explanation offered in many of these cases had been that the ovum escaped, and, wandering about in the abdominal cavity, finally entered the Fallopian tube upon the opposite side. That explanation was not admissible in the present case, because, as a result of former pelvic peritonitis, each tube was bound to its corresponding ovary, leaving no opening through which an ovum could enter. Another explanation which some had accepted, was that the ovum, finding its way into the cavity of the uterus, passed across and entered the opposite Fallopian tube. That explanation, however, Dr. Janeway believed should be taken *cum grano salis*. In the present case he thought we were restricted to the explanation that an ovum escaped from each ovary, and that a corpus luteum developed only in the ovary opposite to the one which furnished the impregnated ovum, as in that ovary there was found a sac, about one-half inch in diameter, which was filled with a pulpy blood-clot, evidently of about the same age as the corpus luteum found in the opposite ovary. That blood, when examined under the microscope, showed no hæmatoidine, hence it was probably not more than seventeen or eighteen days old.

In the opposite ovary there was found a beautifully developed corpus luteum, with bright yellow convoluted wall and fresh red blood-clot in the centre, and corresponded in size to the corpus luteum about three weeks after menstruation.

COMPOUND DISLOCATION AND FRACTURE OF THE ANKLE-JOINT—RECOVERY WITH GOOD MOTION.

Dr. J. W. Howe presented a patient who had sustained a compound dislocation and fracture of the ankle-joint. On the 13th of February, 1879, a large mass of timber fell upon the man, striking him above the knees, and producing a simple fracture of the tibia and fibula of the left leg, and a compound fracture and dislocation at the right ankle-joint. The

joint was opened by the injury; the lower portion of the tibia was broken into two pieces, and the upper fragment protruded from the wound. The man was admitted to the St. Francis Hospital, the limb was treated antiseptically, and the only rise in temperature occurred the next day after admission. He suffered no pain, was able to leave his bed at the end of eight weeks from the time the injury was received, and walked about the ward. The case terminated without synovitis or anchylosis, and the joint movements were free. In the early part of the treatment the limb was kept in a simple fracture-box.

Dr. Briddon remarked that before the days of antiseptic treatment according to Lister, it was regarded as good treatment in such cases to excise the ends of the bones. He had not seen a patient who exhibited so good a recovery in so short a period of time as in the case presented. Probably the Lister plan should be credited for much of the result, but at the same time the favoring influence of the man's vigorous constitution must be taken into consideration. If, for any reason, the Lister plan could not be made available, he should, in these cases, excise the ends of the bones.

The Society then went into Executive Session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, June 23, 1879.

Dr. A. E. M. Purdy, Vice-President, in the Chair.

A REMOVABLE PAPER BRACE FOR THE TREATMENT OF POTT'S DISEASE AND LATERAL CURVATURE.

Dr. A. M. Vance read a paper on the above subject, which has been published in the Record. (See vol. xv., No. 25.)

The paper being before the Society for discussion,

Dr. F. H. Hamilton remarked that he had had the pleasure of examining the apparatus, and his opinion was that it was an excellent apparel, that Dr. Vance was working in the right direction, and that it was doing away with some of the disadvantages of the excellent apparel plaster-of-Paris. Plaster-of-Paris had in its favor exceeding simplicity and facility with which it could be applied. Exceptionally, almost any man could learn to apply it, but it was liable to break down a little more so than was desirable, and covered the parts so thoroughly that we could not tell what was going on beneath it.

Another objection to the plaster-of-Paris jacket was that it was to be constantly worn. Perhaps Dr. Sayre would regard that as an advantage, and he did not wish to speak contradictory to his experience; but it was his (Dr. H.) opinion that it was better to occasionally remove the apparel, in order to avoid complete atrophy of the muscles. That had really been the great reason why surgeons had looked in another direction for immovable supports which were to be applied to the spinal column and to other parts of the body, in order that the muscles should retain their power.

But such appliances also possessed their disadvantages. His impression was that, beginning with the plaster-of-Paris, we were working in the right direction, because it gave us an apparel which enclosed the entire body, and consequently had many points of support. An apparel that had only a few points of support was liable to give rise to discomfort, sometimes to ulcers, and he thought that ordinarily they did not give so much support as those which encircled the body completely. That was why he commonly used a movable corset, an apparel designed by the late Dr. Jacob A. Wood.

Dr. Hamilton thought it was in that direction that we were to look for proper support for the spinal column. If an apparatus could be perfected which was simple, and could be adjusted by everybody, we would have attained a very great desideratum. As it was, physicians were compelled to send their patients to specialists. He commended Dr. Vance's apparel as a work in the right direction. It was somewhat more complex than the plaster-of-Paris, but much more easily made than those forms of apparel which were chiefly composed of metals, and only made by mechanicians and expert specialists.

Dr. Lewis A. Sayre remarked that he had applied the plaster-of-Paris jacket hundreds, if not thousands, of times, and he had yet to see an excoriation produced by it, or a breaking down of the apparatus, as referred to by Dr. Vance. He was always careful to use good plaster and a certain kind of shirt, a knit garment, one which could be applied with skin-fitting accuracy. He was so much pleased to see this step in the right direction, and recognized in it so much improvement upon the iron brace, the "crib," as he had called it, employed in the institution with which Dr. Vance was connected, that he felt almost like giving it his entire commendation. But, in justice to himself and to the plan which he had suggested, it seemed necessary to say a few words. Dr. Hamilton had very justly remarked that the great desideratum in the treatment of spinal disease was to get something which properly fulfilled the indications, and at the same time was so simple that medical men in all parts of the world could use it without being compelled to consult mechanicians or specialists. Dr. Sayre believed that the plan of treatment which he urged was such that, if any medical man would follow out his instructions minutely to the letter he could not fail of obtaining success. For it had given the most satisfactory results, not only in his own, but in the hands of many others, and therefore, inasmuch as it had acted so favorably, he did not see any necessity for complicating it by Dr. Vance's apparatus. It was perhaps true that Dr. Vance's apparatus was lighter than the plaster-of-Paris jacket, but in all other respects it had no special advantages over it. In order to make the paper brace, it was first necessary to learn to apply the plaster-of-Paris jacket properly, to secure an accurate fit before commencing to build the brace, and when that was done, what more could be wished for? For, when the first good-fitting jacket was obtained, it was better than any other that could be produced.

Dr. Sayre then described what *he* meant by a properly fitting jacket, and it was one that was *smoothly adjusted to every inequality on the surface of the body.* In order to obtain such a jacket it was necessary to merely unroll the bandage with one hand, while with the other it was moulded over each inequality, over this elevation and into that depression, and when applied in that manner it could not irritate the skin. It was the pressure on the *summits* of the little elevations all over the body that very commonly gave rise to excoriations, but such pressure was the result of improper application of the bandage. For example, if a roller was drawn over the knuckles, it would only touch their summits, and therefore make undue pressure upon four points; whereas, if the roller was simply *laid* over them, and then *moulded* into the de-

pressions and over the elevations, the pressure would be evenly distributed, the support would be greater, and the tendency to produce excoriations avoided. When excoriations occurred, they were simply the result of improper application of the jacket. Dr. Vance had stated that he scraped off the inequalities on the inside of the model, preparatory to making the paper brace, and he (Dr. S.) regarded that as the worst thing that could be done, for the very inequalities were among the essentials to a properly fitting and supporting jacket. Dr. Sayre, therefore, believed that it was wiser to allow the first accurately fitting jacket to remain than to take the additional trouble of removing it for the sake of the risk of obtaining one which possibly might not fit. Besides there was a loss of time and money in making the exchange.

Again, Dr. Vance had spoken of the advantage arising from the fact that his apparatus could be removed and reapplied at any time without much trouble. That was true, but the very fact that apparatus in general, designed for treatment of spinal disease, was *movable*, was one of the strongest objections to it. The very fact that the plaster-jacket encircled the trunk entirely, and, when properly applied, could be worn with comfort for months, thereby giving absolute quiescence to the diseased parts and an opportunity to get well, was one of the greatest advantages the apparatus possessed.

Dr. Sayre then read from Dr. Golding Bird's writings, in which he stated that from personal experience in forty cases he had not seen any ill effects produced by the plaster-jacket; that sore backs and chafes from the jacket were due to fault in putting it on; that out of seventy jackets he had seldom seen the skin irritated; that the jacket should not be removed; that it was the integrity of the plaster which constituted its perfection; and that as soon as cut up it became but little better than old apparatus.

From the *Berliner klinische Wochenschrift* for May 12th and 19th, 1879, Dr. Sayre also read the statements of Walzburg to the effect that the condition of the skin testified that it was not materially injured by the plaster-jacket, and that a movable jacket in the treatment of kyphosis should not be recommended.

Dr. John A. Wyeth thought Dr. Vance's apparatus was a step in the right direction, but he was not disposed to accept any one device as the *ne plus ultra* in the treatment of Pott's disease. He thought that all cases of the disease occurring above the fourth dorsal vertebra required for successful treatment some form of head-suspension. Cases in which the disease occurred between the fourth and the eleventh dorsal, could be best treated by some apparatus that fixed the thorax. He thought Dr. Vance's brace would succeed in that class of cases, and it had the advantage of being lighter than the solid plaster-of-Paris jacket, which would do the same thing, but had the disadvantages he had discussed upon another occasion. [See Record, vol. xv., No. 6.]

Dr. Wyeth objected to the term absolute quiescence, for he did not believe that any apparatus could be applied to the human trunk and be worn and give absolute quiescence. If, therefore, there was not absolute quiescence, there was danger from friction incident to the movements of respiration. It was there that the great danger attending the use of Dr. Sayre's jacket rested. He did not wish to detract from the value of the apparatus in the least, for it had already done and would do, great good, but it was not every one who knew how to use it properly.

The cases in which the disease was from the eleventh dorsal vertebra below, he believed could be best treated by means of his own apparatus.

Dr. A. C. Post remarked that a case in which the plaster-of-Paris jacket occasioned excoriations occurred under his own observation. The child had considerable deformity, and the mother stated that the jacket had been applied at Bellevue Hospital, but that the child could not wear it because it made the back sore. Dr. Post induced her to take the child to Dr. Sayre's office, where a jacket was applied which not only occasioned no distress, but was worn with great comfort. There was undoubtedly a lack of skill which gave rise to these inconveniences.

The mixture of glue and oxide of zinc, suggested by Dr. Vance, was the same as recommended by Dr. Hayes Agnew, of Philadelphia, at the meeting of the International Medical Congress in 1876.

Dr. V. P. Gibney remarked that, so far as his experience went, Dr. Vance's brace was an improvement on the plaster-of-Paris jacket, in that it could be easily removed and reapplied. He thought Dr. Sayre did not mean to say exactly that he wished to have the plaster-of-Paris get into every inequality on the surface of the trunk, for if so the ribs could not act in the physiological processes of respiration. During the last two or three years he had taken pains to inquire who put the plaster-jacket on when a patient came to the Hospital for Ruptured and Crippled, and complaint was made that it could not be worn. So far as his experience went he had found a number of cases in which excoriations had been made when the jacket had been applied by men whom Dr. Sayre would regard as experts.

As to the excoriations produced by the steel brace referred to, he did not wish to discuss that question that evening. Testifying cases could be found for every kind of apparatus, but for it he could say that it was an instrument well adapted to meet the wants of the general practitioner in every part of the country. Dr. Vance's apparatus also met the main indication in the treatment of all bony diseases of the spine, namely, fixation, and there was one objection to the plaster-of-Paris which was obviated by its use. He knew of one case in which the plaster-of-Paris jacket had been worn five years, and if it was now removed the child could not walk at all. For such a case an apparatus that could be easily removed and reapplied was preferable to an immovable apparatus.

Dr. Sayre remarked with regard to the plaster-of-Paris filling the intercostal spaces and thus preventing motion of the ribs, consequently interference with respiration, that if any one would study Hilton on Rest, they would there find a case reported in which diaphragmatic respiration was carried on for years without special inconvenience to the person; there was complete consolidation of the ribs with the spinal column, allowing of no motion whatever.

If it was desirable to have an apparatus that could be removed and reapplied, the plaster-of-Paris jacket could be cut down, its edges bound, eyelets adjusted, and then it was as convenient as the removable paper brace.

Dr. Hamilton remarked that he did not think it possible that any form of apparel which grasped the ribs, movable as they were, even if not used further than for purposes of suspension, could be constructed which, having its prehension upon the circumference of the chest, would uplift the spinal column. He suspected the error in the principle of the apparel was, that it pushed, although it pushed equably upon all sides of the body, but it did not uplift. So far he did

not agree with Dr. Golding Bird in his view of the action of the plaster-of-Paris.

Dr. Sayre remarked that the plaster-jacket neither lifted nor pulled. The patient was simply suspended until he felt comfortable, and then the apparatus was applied to fix him in his improved position—it was simply fixing the position given to the patient before the jacket was put on, the apparatus neither shrinking nor stretching.

Dr. Wyeth asked Dr. Sayre if he believed the spinal column could be extended.

Dr. Sayre replied that he not only believed, but that he knew it.

Dr. Wyeth asked why suspend the patient before applying the plaster-of-Paris jacket?

Dr. Sayre said because it relieved the diseased parts from pressure, and made the patient more comfortable, and when in that relieving position he applied the jacket, which prolonged his comfort.

Dr. Wyeth remarked that since one-fifth of the entire length of the vertebral column was composed of intervertebral (elastic) fibro-cartilage; since the articular processes were surrounded by capsular ligaments (which anatomically implied free motion) lined by synovial membrane; since the length of the body was increased in the recumbent posture (the superincumbent weight removed, he must maintain the spinal column was susceptible of being extended or shortened by applying the proper force.

Dr. Vance, in closing the discussion, remarked that he had not seen a close fitting of the intercostal spaces by the plaster-of-Paris jacket. Besides, suspension raised the hump, and when the suspension was removed the lower part of the hump at once impinged against the plaster, and it was just there that excoriation was most liable to occur. He then referred to what he conceived to be the difficulties attending the application of the plaster-of-Paris jacket with the aid of suspension.

The Society then adjourned.

Correspondence.

PARONYCHIA—RESTORATION OF TERMINAL PHALANX.

To the Editor of The Medical Record.

Dear Sir:—In the Record, No. 439, April 5, 1879, p. 334, in your report of the Surgical Section of the New York Academy of Medicine, under "Paronychia—Restoration of Terminal Phalanx," the question was raised, Would a new phalanx be formed? (*vide* report). Soon after the publication of the report I received from Prof. Frank H. Hamilton, one of the distinguished surgeons of our profession, this communication, which I appreciate most highly: "Dear doctor, if you will call upon me I will refer you to a number of published cases of restoration of the last phalanx, after opening a felon." I called the following week, when Prof. Hamilton gave me the following references:

First. In the *Buffalo Medical Journal*, Vol. V., 1850, p. 710, a case reported by him, in which there was reconstruction of the entire terminal phalanx of the thumb. In this report he gives to the late Prof. Dudley, of Lexington, Ky., the credit of priority.

Second. In the same journal, Vol. XI., 1855, p. 257, an article entitled, "An Analysis of Cases of Paronychia, by Austin Flint, Jr., Buffalo, N. Y." These are taken from the private records of Prof. Hamilton, eighty-one cases of paronychia benigna, and seven of paronychia maligna. This analysis does great credit to the undergraduate Flint (his graduation is recorded 1857), and is well worthy of careful perusal at the present day. A partial epitome may not be out of place. He discusses sex, occupation, causes, hand and finger affected, age, health, suppuration, time of opening. His concluding remarks are as follows: "These facts show the importance of opening the finger at least as early as the tenth day, and it would appear proper to do so as soon as the disease has become established, even before pus has been formed."

Third. In the New York *Journal of Medicine*, Vol. IV., 1850, New Series, p. 139 (edited by Dr. S. S. Purple), at the close of the first article in the surgical department is a selection from the *Transylvania Medical Journal* for December, 1849, on the treatment of gunshot wounds, by Prof. B. W. Dudley, where he states that after removal of the dead phalanx, the result of bone-felon, in very many instances, he assisted nature in the complete restoration of a new phalanx by the roller: "I have within the last quarter of a century, in very many instances after the extraction of an entire dead bone, caused the construction of a new one in its place, of equal dimensions, by the aid of the roller, which suspended muscular movement, subdued swelling and inflammation, and thereby left nature free to reconstruct the lost bone. The dead phalanx, in cases of bone-felon, is here referred to."

Fourth. The Peninsular Journal, Vol. V., p. 372, January, 1858. This journal I have been unable to consult. I regard the act of Prof. Hamilton as one tending to cement the profession, and worthy of commendation and imitation, for by it my knowledge of the results and the treatment of paronychia has been better established.

In a practice of about twenty-five years I have had considerable experience in the treatment of paronychia, but the case to which I have referred is the first in which I have had occasion to remove dead bone.

Although my plan of treatment was original with me, being guided solely by my judgment in obtaining as good result as possible, thereby having "a good little hand" (the name I heard the renowned Dr. Valentine Mott give the thumb), I discover similar treatment was used over a half-century ago by the late Prof. Dudley.

How often in emergencies we think we are geniuses, viz.: we invent an instrument, and with the kind aid of the instrument-maker it is made presentable, but at the same time he may inform us that our invention was presented years ago.

The very estimable analytical paper on paronychias by the undergraduate Flint was a forerunner of his brilliant analytical career as a physiologist. Of Prof. Dudley it may be said, "though dead, he yet lives."

From the references given to me by Prof. Hamilton I have derived benefit, and therefore wish, through the columns of your valuable journal, with its wide circulation, to extend the information to others.

Yours very respectfully,

Francis V. White.

New York, July 28, 1879.

The London Temperance Hospital.—This is an institution which treats its patients without alcohol. Its sixth annual report is just out, and claims that the hospital is very successful in carrying out its peculiar methods. We find no statistics or details given, however.

THE TREATMENT OF YELLOW FEVER.

To the Editor of The Medical Record.

Dear Sir:—Notwithstanding the sanitary precautions taken by the various "Boards of Health," yellow fever seems determined to push its way into southern society. The experience of last year is sufficient evidence of the helplessness of physicians (with those means already used) to check its progress. The "cold-water" treatment was the last resort. In some cases it appeared to operate finely; in others disastrous results followed its employment.

In all the articles, statements, etc., I have read in regard to the successful administration of cold in yellow fever, improvement dates from profuse perspiration. Some *claim* that to the direct refrigerant action of cold the benefit is to be traced; but practical experience indicates the first statement to be correct. Assuming this to be the fact, the question arises whether there are no safer means at our command to bring about the same results. Unquestionably there is such a remedy in the proper and energetic application of external heat. By this, no reference is made to the wrapping of a patient in a blanket or two, and the induction of a mild perspiration; but to the vigorous and thorough administration of heat, such as is found in the Turkish bath, etc., where the temperature varies from 120° to 220° Fahr., and *excessive* sweating is produced. Let us briefly analyze the action of cold and heat upon the system. The first effect produced by the former is a shock, which for the time being paralyzes the nerves controlling the cutaneous pores, throws the blood to the visceral, and increases their congestion. In a short time a reaction *generally* sets in, the blood flows to the surface and relieves visceral congestion, the pores of the skin are opened and sweating ensues.

Upon the application of heat the blood leaves the visceral and seeks the surface. The pores are opened, sweating ensues. The same result may be reached in each case, but which is safer? With cold, the patient is liable never to recover from the shock, in which case death occurs. With heat, there is no shock from which to recover.

Pathological investigation in yellow fever last year showed excessive visceral congestion. The liver, spleen, brain, choroid, etc., were in an extremely inflamed condition, and the kidneys so filled with albuminous tube-casts as to almost, if not quite, prevent any secretion of urine whatever. Is it justifiable in this condition to submit a patient to any procedure which further induces, if only for a short time, congestion? If reaction sets in upon the administration of cold all may be well, but if the contrary occurs (and this is often the case), a fatal result may with safety be predicted. The "cold-water" treatment of fever is losing favor. The splendid results anticipated from its adoption have not been fulfilled, and statistics from various hospitals do not in many instances compare favorably with even expectant treatment. I read with pleasure an article in the Record of May 31, 1879, by Dr. Peters, of Cohoes, N. Y. To this article I would refer those interested in the subject under consideration. The statistics he has compiled derogatory to the "cold-water" treatment are very valuable, and show clearly that this remedy is not realizing the expectations of its advocates.

If the pathological condition of yellow fever is congestion, clearly any remedy capable of relieving this condition would be at least valuable and worthy a fair trial. If space allowed, many proofs of the efficacy of heat in this particular might be adduced. I will, however, cite but one instance, which seems most scientific and satisfactory.

Dr. Leared, of England, relates the following: "Having found that persons affected with fulness and congestion of the head were often much benefited by the Turkish bath, he thought that the readiest mode of ascertaining the effect of the latter upon the cerebral circulation would be by observing its influence upon the blood-vessels of the retina. Mr. Wordsworth therefore examined Dr. Leared's eyes with the ophthalmoscope, just prior to his entering the bath, and again after he had remained in the hottest chamber (196° Fahr.) for a quarter of an hour, and then found a decided and marked paleness of the optic nerve and a diminution in the size of the retinal vessels. The same effect was noticed in four persons employed in the bath (a negro, an East Indian, an Englishman, and a German), under a temperature of 120° Fahr., who were examined at the same time by Mr. Wordsworth." These experiments I have verified in a patient (F. E., male, aged 24 years, Sycamore, Ill.) under my care for congestion of the brain. A Turkish bath not being convenient, an alcohol and water-vapor bath was substituted. The optic nerve and retina being noticed before and after profuse perspiration, apparently the same effects were produced as in Dr. Leared's case. If the fever becomes epidemic this year, I would strongly advocate the adoption of the external application of heat as the main feature in its treatment. The erection of a chief building, where the principles of the Turkish bath, viz., sufficient heat and ventilation, could be administered, or in lieu of this, the application at home of heat in the way of "corn sweats," "alcohol sweats," etc., would answer a good purpose, provided they were given often enough and with sufficient vigor. If Turkish bath buildings should be adopted, it would be advisable to have physicians in charge who understand its principles and practical application.

The past has not been productive of good results in the management of yellow fever. It appears, therefore, that any remedy indicating better issues should receive attention and a fair trial. One fact, however, must be borne in mind in order to obtain good results: the remedy must be administered *very thoroughly*, and not by the occasional induction of a mild perspiration.

Frank Allport, M.D.

Sycamore, Ill.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

Reply to Dr. J. D. S. Smith.

To the Editor of The Medical Record.

Dear Sir:—The strictures made by Dr. Smith in his letter concerning Electro-therapeutics and the American Neurological Association were not altogether unjust. It cannot be denied that the whole discussion on current direction and polar influence, as reported, tends to convey the impression that there are no well-established differential indications for their use. Since of all remedies electricity is used with the least understanding by the many, I think it peculiarly unfortunate that in this discussion there was such a wide difference of opinion; and as my conviction in relation to this question is very positive, I very gladly take this opportunity to repeat and emphasize it. I then stated that in most cases where a

sedative influence was to be desired, and for the relief of pain associated with true neuralgia, as defined by Anstie, the descending current was far preferable, and that in numerous cases the ascending current was not only valueless, but actually aggravated symptoms which yielded readily to an opposite direction of current. My own experimental attempts, which I published years ago, were sufficiently convincing to me, and afforded a basis on which I have since satisfactorily acted.

In a number of cases which I tested, I was enabled, after obtaining good results from the descending current, to increase the pain temporarily by changing its direction. In the first case my observation was accidental, for, having under my care a severe case of facial neuralgia, which was slowly recovering under descending currents, I changed the position of the poles, hoping in this way to hasten the results. The effects were disastrous, for the pain instantly returned with increased severity. Whether such results, both good and, bad are due mainly to polarization or current-direction is open to question. According to the well-known contraction laws of Pflüger, we might well believe that polar influence is the important factor; and yet the French school, and notably Legros and Onimus, deny the efficacy of polar influence in exciting physiological phenomena, ascribing them chiefly to current direction. They ascribe anelectrotonic effects to electrolytic action, and to the induction of currents of polarization. Whatever the truth may be, however, in regard to this, I have no more doubt about the different therapeutic effect of opposite *directions* of current than I have of the difference between the two *forms* of current.

A. D. Rockwell, M.D.

New York.

New Instruments.

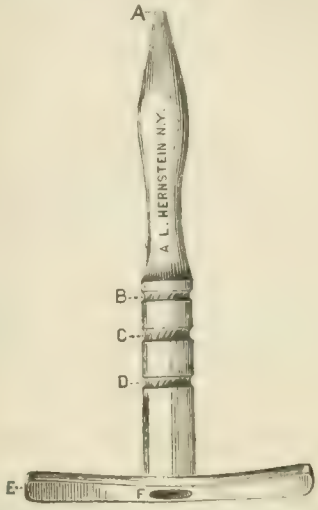
NEW OPERATION IN CASES OF PROLAPSUS RECTI AND EXTERNAL HEMORRHOIDS.

By SIMEON N. LEO, M.D.,

NEW YORK.

That there are certain painful and serious affections of the lower portion of the rectum amenable to surgical treatment and interference is pretty well understood, and the attention of late bestowed on the practice of this now almost so-termed specialty has given rise to a series of suggestions and operative procedure, all well in their way, though some of them, in skilful hands, are entitled to a preference, bearing in mind the fact that modifications must be made to meet the requirements of any particular exigency. Without, therefore, entering into a discussion of rival claimants as to whether the clamp and cautery, caustic, cutting, or ligature are more desirable, I briefly beg to recall to mind the anatomical structure and relation which the outlet of the lower gut bears to other parts in the male and female organism, especially that portion most frequently invaded by the two varieties of external piles appropriately described—firstly, as hypertrophies or excrescences of the skin; secondly, as sanguineous or venous tumors; and suggest that in view of danger from cutting and other operations, which often give rise to troublesome hemorrhage and tetanus, that the ligature is preferable, as safer, while yielding the best result, and less likely to provoke some of those disagreeable sequences which surgeons who have given the various methods referred to a trial are more or less familiar with.

Having resolved, then, to remove such growth or extruded part by ligature, it is well to consider some of the more important features associated even with this simple operation, which in some respects I believe can be so modified as to suit both patient and surgeon, affording the former greater ease and comfort in its performance, and the latter the satisfaction of having discharged his task in the most acceptable manner possible, requiring but little time and inducing many considerations, to which the brevity of this article simply allows allusion. I suggest the use of the little instrument two inches and a half in length, one inch



and a half in width, illustrated by the woodcut, bearing in mind the following directions in its application:

Firstly, the person to be operated on should be careful to have the gut well washed out with an enema of warm water, and while evacuating same protrude the parts to be taken off. Then placed upon a bed or lounge, resting on the right side, with the knees flexed up and directed to bear down, it is well then to have the upper buttock raised, if an assistant is present, by him, otherwise supporting it with a doubled pillow; then seize the hemorrhoids with a forceps, serrated hook, or vulsellum, and pulling the mass gently out see if the piles be surrounded with much submucous or muscular tissue; if so, separate each pile with a stout scissors, being careful not to wound any of the vessels, cutting parallel with the bowel for a short distance only; then insert the tube, well oiled or greased, at A, its sharp point, and directing the assistant to make gentle traction and pull forward on the projecting parts. With a catgut ligature proceed to tie firmly the mass in the grooves, B, C, and D, according to their length.

It is well to put a tight, double ligature at the groove, B, so as to strangle the extraneous parts. The operation is then concluded. A thin probe should be inserted at F to free the tube, after which a sedative opiate injection may be used to allay pain; while at the time it is advisable to administer an astringent pill or draught for the purpose of confining the bowels.

The tube being hollow allows the flatus to escape from the canal, permits local medication, sedative and antiseptic; and the gentle pressure exerted on the sphincter muscles being rather soothing and supporting than otherwise.

The instrument should be so entered that the two flanges are placed transversely to the median line. The surrounding parts, as a rule, heal rapidly, and the sloughing, which occurs in a few days, generally releases that which it is desired to remove.

A prolapsus of the rectum may be treated on pretty much the same general principles, and I believe will yield equally satisfactory results.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 3 to August 9, 1879.

WEBSTER, WARREN, Major and Surgeon. Granted leave of absence for three months. S. O. 181, A. G. O., August 5, 1879.

HARVEY, P. F., Capt. and Asst. Surgeon. Relieved from duty at Ft. Buford and assigned to duty at Ft. Randall, D. T., relieving Asst. Surgeon L. Crampton. S. O. 84, Dept. of Dakota, August 2, 1879.

CRAMPTON, L. W., 1st Lieut. and Asst. Surgeon. When relieved from duty at Ft. Randall, to proceed to Ft. Buford, D. T., and report to the Post Commander for duty at that post. S. O. 84, C. S., Dept. of Dakota.

RICHMOND, CHAS., 1st Lieutenant and Asst. Surgeon. Having reported in person at these headquarters, assigned to temporary duty at Ft. Buford, D. T. S. O. 83, Dept. of Dakota, July 30, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 9, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 2, 1879..	0	5	34	3	44	19	1	0
Aug. 9, 1879.	0	7	40	2	25	17	1	0

THE YELLOW FEVER.—From August 6th to August 12th, inclusive, the number of new cases of yellow fever in the city of Memphis was 161, and the number of deaths 32. The whole number of cases for this year to August 13th is 422, and the whole number of deaths 106.

By order of the Secretary of War, 500 army tents have been forwarded for the use of fever refugees in camp.

The disease has extended beyond the immediate neighborhood where the first cases developed in July, and cases have been reported and deaths have occurred in so many different localities in the city, that the Board of Health, on August 9th, made a formal declaration of a general epidemic.

In this port (New York) a few new cases have been received at the hospital on Dix' Island. August 12. All the patients have been discharged.

One fatal case has occurred in the city of Brooklyn.

Dr. White, Sanitary Inspector for the city of New Orleans, reports that the city is enjoying the highest possible health.

A very severe epidemic is reported from Tampico, Mexico.

VOLUNTEER SURGEONS FOR YELLOW FEVER SERVICE.—The order which assigned Surgeons Thomas Hiland and Walker K. Schofield to duty as volunteer surgeons for yellow fever service, under the direction of the National Board of Health, has been revoked, neither having had the fever. Medical Inspector Somerset Robinson, of the Navy, and Dr. Daniel M. Burgess, a resident of Havana, have been assigned to duty at Matanzas and Havana respectively, to perform the duties of inspectors.

THE TREATMENT OF CHOLERA-INFANTUM. — Dr. Charles H. Avery, of New York, writes that he has adopted the following treatment in cholera-infantum with very great success: He first directs that a poultice be made as follows, and applied over the stomach: Take of pounded cloves, cinnamon, and ginger, each, one teaspoonful, add a small quantity of flour, and then moisten the whole with brandy. Spread the mixture on and cover with thin flannel, and so fasten it that it will be kept in position. Occasionally moisten the poultice with brandy, which can be done without removing it. One teaspoonful of the following mixture is then ordered every two hours for children over three months old.

℞. Acid. carbol.....gr. xxiv.
Spts. vini.....gtt. xxiv.
Aq. menth pip.....℥ iss.
Mucil. acac.....℥ vi.
Syr. papaver.....℥ vi.
Tr. opii.....gtt. x. M.

As a rule the vomiting ceases before the hour arrives for the administration of the third dose; frequently before the second dose is given.

The passages from the bowels are not arrested by the medicine, but within twenty-four or forty-eight hours they begin to change in character, soon diminish in frequency, and afterwards cease altogether. The diet of the child is restricted to barley-water and milk. If it is a nursing child, barley-water is administered before it is allowed to take the breast.

If the vomiting is severe, the child is *not allowed to take anything*, except the medicine, for three hours.

If there is marked evidence of acidity of the digestive tract, teaspoonful doses of the following mixture are given every ten or fifteen minutes for two or three hours:

℞. Mistura cretæ.....℥ ij.
Syr. rhei.....℥ i. M.

To this he sometimes adds fifteen grains of hydrarg. cum creta.

As a substitute for the above antacid mixture, he sometimes gives ten grains of subnitrate of bismuth, and five grains of pepsin three times a day.

The leading features of the plan which he recommends are: the spice poultice, the barley-water and milk diet, and the medicines according to the first prescription.

HONOR TO DR. CRAWFORD W. LONG.—Mr. F. B. Carpenter, of New York, has just finished a nearly full-length portrait of Dr. Crawford W. Long, late of Athens, Ga., which is to be placed in the State Capitol at Atlanta, Ga., at the order of the alumni of the Georgia University. It is in honor of the discovery made by Dr. Long, March 30, 1842, that inhalation of sulphuric ether renders a patient insensible to the pain attending a surgical operation. It will be received and presented to the Georgia legislature by United States Senator Gordon.

Original Lectures.

RETENTION OF URINE IN ELDERLY MEN.

CLINICAL LECTURES DELIVERED IN BELLEVUE HOSPITAL,

BY J. W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

LECTURE I.

ACUTE RETENTION OF URINE.

GENTLEMEN:—I propose, in a few short lessons, to speak to you on the subject of retention of urine as it sometimes occurs in elderly men, for I have already, on previous occasions, said much concerning the occurrence of this distressing trouble in the young and middle-aged.

The class of cases to which I now invite your attention may be illustrated by the following, and not infrequent history. I might give twenty or more examples, but for the present a single typical case will suffice.

On an unusually cool evening in August, 1878, a gentleman, 54 years old, in fair health, clad in thin summer garments, sat for several hours upon the piazza of his house near the shore of one of our lakes. Before retiring he experienced a sensation of general coldness, which was not, however, followed by an absolute chill. On the next morning he suffered the greatest distress from inability to pass a single drop of urine, and ever since that moment he has not been able to void his urine without the aid of a catheter, though he had never, before this attack, had the slightest difficulty in relieving his bladder naturally. This patient was then suffering from what has been properly called acute retention of urine, which should not be confounded with the more gradual and insidious accumulation of urine known as chronic retention.

In the clinical study of a case of acute retention of urine the following are the points to be considered: An elderly man, otherwise healthy, having never had any symptoms of trouble with his genito-urinary apparatus, is, after exposure to cold in the way just described, or after a debauch—especially if followed by coitus—unable to relieve his bladder and suffers great pain from distention, though at the outset of the retention he may have been able, by much straining, to expel now and then a few drops. The first question that, I am sure, arises in your minds is, what may be the mechanism of such retention? This stoppage of urine is not the consequence of closure of the canal by a stricture, for there are no strictures of the prostatic portion of the urethra or of the urethro-vesical orifice, and it is easy to exclude impacted calculi, or other foreign bodies, by a simple exploration, and also by further inquiry into the antecedents of the case. The condition in question is similar to that which occurs in young men who, towards the decline of an attack of gonorrhœa, have suffered exposure to cold, and consists in complete occlusion of the urethro-vesical orifice and prostatic sinus, owing to tumefaction of the surrounding tissues. In a man who has even very slight general enlargement, or the beginning of centric hypertrophy of the prostate, with a "third lobe" so small as to cause no obstruction, an exposure to cold, or over-indulgence in the pleasures of the table, or in venery, will cause sudden engorgement of the pelvic vessels, which will give rise to such increase in bulk of the whole prostate, partly by serous infiltration, as to completely close the urethro-vesical orifice, and of course to retention of urine. And you may ask why should sudden increase of the prostate cause obstruction to the flow of urine, when it is known that many patients who have enormous prostates are able not only to urinate but to empty their bladders? I answer that there is a very great difference between sudden engorgement and chronic enlargement. In the former the resisting fibrous capsule of the prostate will not yield to sudden pressure, and the consequence is that the third lobe, "being unprotected by the capsule and free at its summit, rapidly swells; the sides of the prostatic sinus are likewise tumefied, and the urethro-vesical orifice and prostatic urethra are finally thus blocked up, and this is usually the work of a few hours, as it is for example in œdema of the glottis; whereas in the latter, the slow hypertrophic process permits the capsule gradually, month after month or year after year, to accommodate itself to the steadily increasing gland, leaving room for the escape of urine. I scarcely need tell you that those very patients with great general hypertrophy of the prostate, who ordinarily empty their bladders without artificial means, are extremely liable to acute retention of urine from the same causes as the others, and that often after this accident the obstruction is not removed, and they are never again able to pass urine without the aid of a catheter. The patient who is now before you is a good example of this variety of cases.

The symptoms and progress of acute retention of urine are: for an hour or two, dysury, the first efforts at urination giving issue to short jets of urine which cause such severe scalding, burning pains in the deep urethra, that the patient instinctively represses the flow; then follows strangury, with the escape, at times, of drops of blood or bloody mucus, alternating with the drops of urine; this may continue also an hour or two; and at last comes ischury, or inability to discharge a single drop of urine in spite of the violent straining efforts which will often cause the escape of fæces, or even prolapse of the rectum. If the case be left to itself, the urine will accumulate until the bladder bursts or becomes atonied and distended to the point of containing six or eight pints or even more, when urine will begin to dribble away involuntarily. During these distressing stages of the complaint there is great general neurosis, much agitation, marked febrile reaction, thirst, facial congestion, accumulation of gas in the intestines, much pain, with an almost insupportable sense of distention in the hypogastric and lumbar regions, dryness of the skin, then profuse perspiration with urinous odor, muttering delirium, oliguria, then anuria or complete suppression of urine, and if the patient does not die in consequence, polyuria is very apt to follow.

During the first twenty-four hours the patient suffers the greatest torture from increasing distention of the bladder, and from constant, irrepressible straining. So far, the accumulation may not have exceeded three pints, but in the meantime the poor sufferer has taken a little of everything that may have been suggested—nauseous decoctions of all sorts, diuretics innumerable—all serving only to increase his troubles. Suppose the case to occur in the country, and the wretched patient to be in the hands of the old women of the neighborhood. After every imagin-

able local application has been suggested, and several of the most filthy tried, they begin with teas: linseed, slippery elm, comfrey, etc., with a liberal allowance of nitre in each cup; but all these potions have failed, when finally, at the expiration of forty-eight hours, in comes an old friend with a bottle of gin which he boldly asserts never fails to cure all his own ailments He speaks so confidently of the wonderful effects of his panacea in urinary troubles, and of its general harmlessness, that the patient, now in utter despair and ready to grasp at any straw for relief, consents to take a gin julep. It is nearly time, as you know, for the beginning of dribbling from overflow, and for the pain and straining to lessen; in other words, for the bladder to lose its contractile power. Within an hour, while he is waiting for the effect of this never-failing remedy, the urine has begun to flow drop by drop. He could not have selected a more favorable moment for the display of his wisdom, as on the first day he would have been sadly disappointed. Now imagine the triumphant air, attitude, and gesture of the prescriber, when he exclaims, "I told you that the gin would do it, never has it been known to fail!" . . . All of course concur with him in ascribing this marvellous result to the drink of gin, and insist that the patient shall take more, and he does take more. The urine flows continuously, in very small quantity for hours, but by and by some one suggests that the patient is making too much water, and that means must be taken to repress the flow. How to accomplish this none can tell; so they decide to consult a doctor, who is at length sent for to stop this constant and, as it is thought, injurious flow of urine. The doctor comes promptly, learns what has been done, inspects the abdomen, makes percussion, finds the bladder greatly distended, at once introduces a catheter, and to the amazement of the bystanders draws off slowly, in the course of two hours, three or four pints of urine, withdraws the instrument, and makes the startling statement that he has only half emptied the bladder.

You will occasionally be called to precisely such cases, and I hope you will do precisely what the doctor has done. You will forthwith proceed to remove slowly and gradually only a part of the contents of the bladder.

Why forthwith? Because to temporize in such cases is criminal stupidity; it is worthy of the senseless and meddlesome neighbors, who are to be found everywhere, and who are usually the enemies of truth, reason, and common sense. However, they are not the only people who have been known to temporize in cases of retention of urine. In this very city of New York, how often, not many years ago, certain medical men treated cases of acute retention of urine by embrocations, hip-baths, diuretics, and especially free doses of tincture of the chloride of iron, for days, when the catheter would have done the work so promptly and effectually. One of the believers in this expectant treatment, who was asked why he would not use the catheter, said it was because the tincture of iron "always *in time* makes them urinate." This sort of management, I repeat, which excludes the catheter when its use is so clearly indicated, is worse than stupid, it is criminal.

Why should you withdraw only a part of the urine from an over-distended bladder? Why slowly and gradually? Because experience has taught careful observers that when the contents of a largely distended cavity in the body are suddenly evacuated, the consequences are usually hurtful. For instance, in tapping for ordinary abdominal dropsy, neglect during the operation to use compression with a proper bandage, or the too precipitate withdrawal of the serum, has been followed by the most untoward results, such as syncope, hemorrhage in the peritoneal cavity, and even fatal peritonitis. Profuse hemorrhage also sometimes follows the sudden emptying of large abscesses, of thyroid and other cysts, and of those long-neglected enormous hydroceles of the tunica vaginalis testis. The same almost always occurs when a greatly distended bladder (in an elderly man) is completely relieved of its contents with too much precipitation. Let me now give you what I conceive to be the correct explanation of such a hemorrhage in the bladder. So long as the bladder remains distended there is no bleeding; but as soon as the urine is drawn hemorrhage begins. The vesical parietes, from having been in a state of extreme tension, in an instant become flaccid, the capillaries of the mucous membrane, from having been greatly stretched and almost emptied, are suddenly gorged with blood, and being deprived of the hydraulic support of the urine which but a moment before braced them up, their delicate walls, unable to resist the increased internal pressure exerted by the circulating blood, give way, and the blood oozes from thousands of little rents on the surface of the vesical mucous membrane. These vesical hemorrhages are often abundant, and have been known to last two and three weeks, but they very seldom prove fatal directly, that is, from the amount of blood lost; the danger lies mainly in the consecutive general cystitis which cannot always be controlled. A septuagenarian suffering from prostatic hypertrophy died from this cause several years ago. The patient had acute retention of urine, with great distention of the bladder, which was suddenly emptied with the aid of a catheter introduced by his surgeon. Within a few hours the bladder was again distended, this time not with clear urine but mainly with blood. Each subsequent catheterism brought a great amount of blood, and the old gentleman grew gradually worse, with symptoms of acute general cystitis, and died within ten days.

About four years ago I saw, in consultation, a similar case, which however terminated favorably. The patient was 63 years of age, and had some prostatic hypertrophy, but had not been obliged to use the catheter. He was, on the morning after an exposure to cold, seized with acute retention of urine, which he had had on several former occasions, and after some delay summoned his physician, who at once introduced a catheter and withdrew three pints of clear urine. A second catheterism on the same day gave issue to bloody urine, and from that time all the urine drawn off was highly charged with blood, clots of which at times became impacted in the catheter. I saw the patient nine days after the first catheterism, and drew off a pint and a half of fetid, thick, alkaline, tarry fluid, consisting of about an equal amount of blood and urine. The catheter was left in for twenty-four hours and the bladder thoroughly drained, while an occasional irrigation with an astringent solution was used. Afterwards the urine was drawn off every three hours and the bladder duly irrigated. No more hemorrhage occurred after complete drainage was effected, and the cystitis was easily managed.

A safe rule, therefore, for your guidance in the management of cases of acute retention of urine of forty-eight hours' duration, is never to draw off more than one-third of the contents of the bladder, and to do this very slowly by half closing the distal end of

the catheter, so that the urine will flow in a very small stream. Having collected half a pint, close the catheter for a quarter of an hour, then let another half-pint flow, and so on, until the required quantity has been obtained. In two hours repeat the catheterism if the first has been easy—otherwise the catheter should be closed, and left in for twenty-four hours—and remove again the same quantity very gradually, and at the expiration of another period of two hours you may completely empty the bladder, always slowly; and in this way you will have taken the necessary precautions to avoid both cystorrhagia and polyuria. Every three hours after the last catheterism the urine should be drawn off until the patient can pass it spontaneously; if he cannot do so, of course the catheter will have to be resorted to at such intervals as may be found necessary. You will also have to treat the existing vesical inflammation and atony. For general medication I would recommend the tincture of chloride of iron in five-minim doses three times daily, and also diluent drinks, such as thirty grains of citrate of soda or potash in half a glass of water three times daily, and in a few days, for a change, dog-grass tea, etc. Topically, lumps of ice the size of the last joint of the thumb should be introduced into the rectum in rapid succession as fast as they melt, for an hour night and morning. A bag of ice may be afterwards applied alternately to the perinæum and hypogastrium for an hour or more. Each time the bladder is emptied by the catheter, a couple of ounces of cold borax solution, from five to ten grains to the ounce, should be thrown in and allowed to run out slowly, then two more, and two more ounces which should be left in and the catheter withdrawn; this can be accomplished in five minutes. No preparation gives me more satisfaction than the borax solution for cleansing bladders which contain offensive purulent urine. It is as well to have in readiness a strong solution of borax in glycerine; one ounce of the biborate of soda will be readily dissolved by six ounces of glycerine, each drachm of such a solution being equal to ten grains of biborate. In a week or thereabouts, if the case should progress well, the irrigations may be diminished in number until only one is used each day. In some cases a mild faradic current is serviceable.

Besides hemorrhage, polyuria, as I have already said, is very apt to follow the sudden evacuation of an overdistended bladder, and you will generally prevent its occurrence by observing the caution that has just been given. I know of a case of polyuria which followed the withdrawal of three pints of urine in the course of one hour, one pint at a time, the third pint completely emptying the bladder. The catheter was left in, and every hour for twenty-seven consecutive hours one pint of urine was drawn. After this the amount of urine gradually diminished, until only six pints were removed each twenty-four hours. At the end of three months it was reduced to four pints daily.

The case just cited is exceptional, for ordinarily it is safe to empty the bladder—slowly of course—at one catheterism, when the patient is seen during the first twenty-four hours of an attack of acute retention.

RETENTION OF URINE IN CASES OF CONTRACTED BLADDER.

Let me now, in a few words, direct your attention to those cases in which there is chronic cystitis with diminished capacity of the bladder, and in which the accumulation of even four ounces constitutes retention of urine with its most distressing symptoms. A patient suffering from chronic cystitis, who for a long time has been obliged to urinate every hour, half-hour, or even more frequently, is suddenly unable to relieve himself. For the next two or three hours he is in the most intense pain, and in the condition of an ordinary case of acute retention of twenty-four hours' standing.

A catheter is introduced, and any young surgeon unacquainted with like cases will be surprised that only four or five ounces of urine have come away, but the patient experiences quite as much relief as another from whom two or three pints of urine may have been drawn. The early recognition of the nature of such cases will be to you of the utmost importance, and their management will require your best skill and judgment. The catheter should be used promptly and with the same care as in the other cases, but more frequently, especially when cystorrhagia or polyuria supervenes, as the pain and vesical spasms may be such as to forbid the retention of the instrument beyond a few minutes.

Original Communications.

THE HISTORY OF MASSAGE.*

By DOUGLAS GRAHAM, M.D.,

BOSTON, MASS.

PART II.

THE third historical division of massage, or what is found recorded about it in more recent times, has been styled its period of improvement. To Peter Henrik Ling, of Sweden, is given the credit of having instituted, in 1813, what is so well known as the "Swedish Movement Cure." Some even regard him as the inventor of this system of treating certain diseases, while others consider that he only made rational that which had been in practice for many centuries among the Chinese and other eastern nations. The latter is the more correct view, and the one which Ling himself doubtless held; for Dr. Roth, a disciple of his, states that Ling thought not, like his predecessors, of merely imitating the gymnastic treatment of the ancients, but he aimed at its reformation and improvement. From the following remarks of M. Georgii, one of Ling's pupils, it has been thought by M. Estradère (Du Massage, 1863) that Ling claimed to have invented the movement and manipulation treatment of disease. "Let us speak of the series of movements invented and determined by Ling. Here the influence comes solely from without, and the patient submits to the mechanical impression. Ling means by passive movements all communicated movements, such as pressures, frictions, percussions, *tractions* (manipulation of the skin and subcutaneous cellular tissue), etc., motions and attitudes suitable to produce temporary or artificial congestion in an organ." Hereafter Estradère disputes somewhat bitterly the honor thus given to Ling, and adduces abundant and interesting testimony to show that "Ling's entire system was but a compilation of all the exercises, frictions, and manipulations which had been practised before him among many nations. The method of Ling is that of the Brahmins of India; it is that of the

* Concluded from page 150.

Egyptian priests; it is that of Asclepiades, of Pythagoras and of Herodicus, one of the masters of Hippocrates; it is that of which Hippocrates, Celsus, Galen, Rufus of Ephesus, and other physicians, Greek and Roman, have preserved fragments for us. All the movements which Ling has indicated are described in the Cong-Fou of the Tao-Ssé." However the genius of Ling, and the claims of priority made for him, may have been disputed, there seems to be no doubt as to the merits of the system which he rescued from oblivion, and to all accounts put upon a scientific basis. "In the rooms of the central establishment at Stockholm persons of every condition and age, the healthy as well as the sick, executed or were subject to the prescribed movements. The number of those who adopted the use of the therapeutic movements increased every year, and among them were even physicians who, in the beginning, had been the most opposed to Ling." In 1844 the Supreme Medical Board of Russia appointed two members of the Medical Council to inquire into the merits of the movement and manipulation treatment as practised by M. de Ron, one of Ling's disciples, at St. Petersburg. He had then been using it there for a period of twelve years, and from the highly commendatory report of the Councillors we quote the following:

"All passive movements (those which are executed by an external agent upon the patient), as well as active ones (produced by the effort of the voluntary muscles), and the different positions, with the aid of apparatus or without it, are practised according to a strictly defined method, and conducted rationally, since they are based upon mechanical as well as anatomical and physiological principles. *Experience teaches us the usefulness of the institution, as many persons thus treated have recovered their health after having suffered from diseases which could not be cured by the ordinary remedies.* We must also mention the testimony of Dr. Bogoslawsky, who himself, after having been cured in that institution of a chronic disease, has practised diligently these movements (including friction, manipulation, etc.), and who, being appointed consulting physician to that institution, has since then had opportunities enough of observing and witnessing numerous cures." *

In Sir John Sinclair's Code of Health and Longevity we are told that Admiral Henry cured himself of rheumatism by means of friction and percussion with instruments made of bone polished smooth, cork hammers, and the bottom ends of glass vials. He was at that time, 1810, seventy-nine years of age, and had suffered from rheumatism for twenty-eight years. There were swellings in his knees, ankles, and insteps which made him quite a cripple, so that he could only crawl about. He persevered in the frictions and percussions night and morning for three years, at the end of which, it is said, he had completely succeeded in removing the swellings, and had restored himself to the use of his limbs. The fingers of one hand were swollen and contracted, it was thought from gout, but by the persistent use of his instruments they became quite flexible. Many of these operations of deep rubbing and percussing the admiral described as being at first painful; but they ceased to be so after having been persevered in for a little while, and became even pleasant and so useful that, after having gone through with them in the morning, he felt better all day. "If regularly done for some time," says the admiral, "the muscles become so sound and firm that neither pinching nor beating with violence gives any pain, while with the improvement of the frame the mind becomes stronger, the spirits improve, and the faculties are strengthened."

In 1782 a cataract began to form in Admiral Henry's left eye. He was accidentally led to try rubbing in a peculiar way, with the result, it is stated, that in less than two years the cataract was dispersed. Two years later a cataract came in his right eye, and this he was persuaded to have removed more quickly than the other had been. It was operated upon by a distinguished oculist of London, in 1799, and he lost the sight of it, so that, had it not been for the successful dispersion of the cataract in the left eye, the admiral was sure he would have been entirely blind.* After the cataract operation the admiral suffered from excruciating facial neuralgia for a year, which reduced him to a state of great weakness. Having used various remedies with but temporary relief, he then tried deep rubbing with his instruments, and thus, it is said, completely removed the complaint. He kept up his frictions and percussion as a means of preserving his health, and the result was that at the age of ninety-one he enjoyed the activity of middle life, and had attained to as good a state of health as any man in England. In a letter to a friend, dated March 1, 1823, he writes: "I never was better, and at present am likely to continue so. I step up and down stairs with an ease which surprises myself. My digestion is excellent, and every food agrees with me. I can walk three miles without stopping."

The admiral's system of massage was rather rough, and probably nothing would have inspired him with such perseverance but the enthusiasm arising from the firm belief that he had discovered and invented a new system of treatment. What he observed with regard to his procedures being at first painful, but subsequently becoming agreeable, is very true, and has been often noticed by others in a variety of cases more recently, some even intimating that in this they have made an observation hitherto unknown. It is difficult for some people to imagine that *matted*, rigid, and painful tissues can become of natural suppleness, elasticity and feeling, under the use of massage; as well as the fact that flabby, over-sensitive tissues deficient in size, tone and firmness can often be made, by means of massage, to assimilate the nourishment necessary to their proper formation. On this subject let old Celsus again speak. "For a thing becomes constricted when we take away that which by its interposition produced relaxation, and softened when we remove that which caused its hardness, and filled, not

* Roth on the Cure of Chronic Diseases, pp. 18 and 19.

* Other cases of a similar kind might be quoted, but it must not be forgotten that cataracts sometimes improve for a time, and they have even been known to disappear of their own accord. Dr. Pagenstecher, of Wiesbaden, a trustworthy oculist, has used massage in two cases of episcleritis, and one of parenchymatous keratitis, with "such favorable results that he no longer hesitates to report them." Of the rapidity of improvement, he says he has "never observed the like with other methods of treatment;" and, however his further attempts may turn out, "still the significant fact remains that one can by means of massage diminish the intraocular pressure in suitable cases.—*Centralblatt für Prak. Augenheilkunde*, Dec., 1878.

I have used massage of the head and locally with marked and permanent improvement in three cases of muscular asthenopia: one a myopic patient, one a hypermetropic—both of whom had had their refraction long before attended to—and one an emmetropic patient. This is not the place to speak of the tangible changes which occurred in the accessible tissues, and which coincided with, or even preceded improvement in these cases; nor is there room to speak of the manner of using the massage, which was not by superficial friction, as is generally supposed. Nor yet is there space to discuss the rationale; but it may be pardonable to suggest that if there may and does arise a dozen different affections of the eye from cold, exciting a neuralgia of the infra-or supra-orbital nerve (see *Arch. de Médecine*, July, Sept., and Nov., 1854, and Brown-Séquard's Lectures on Functional Nervous Disorders, 1868), why is it not reasonable to expect improvement in as many maladies of the eye from the use of massage, which acts in a reverse manner from cold, but through the medium of the same tissues—provided the affection is not beyond recovery?

D. G.

by the rubbing, but by the food which afterward penetrates to the skin which has been relaxed by a kind of digestion or removal of its tissue."

A curious old book is that entitled: "A Full Account of the System of Friction, as adopted and pursued with the greatest Success in Cases of Contracted Joints and Lameness from various Causes, by the late eminent Surgeon, John Grosvenor, Esq., of Oxford." About a century ago Dr. Grosvenor was professor of surgery for many years at Oxford. His skill and reputation became so great that he was soon in possession of all the surgical practice at Oxford, and on every side of it within a radius of thirty miles. "He practised simply as a surgeon, in the proper and strict sense of the word; and while he never condescended to soil his fingers with the preparations of pharmacy, he constantly refused at the same time to invade the province of the physician. In the latter period of his practice, Mr. Grosvenor rendered himself justly celebrated throughout the kingdom by the application of friction to lameness or imperfections of motion arising from stiff or diseased joints. He had first used it with success in a complaint of his own, a morbid affection of the knee; and by degrees its efficacy was so acknowledged that he was visited by patients from the most distant parts, of the highest rank and respectability—among others, by Mr. Hey, the able surgeon of Leeds. Those who have benefited by the process pursued under his own immediate superintendence in cases of this sort, and from total inability have been restored to a free use of their limbs, are best able to attest his merits. That he was scarcely in any instance known to fail was perhaps attributable to the circumstance that he used his utmost efforts to dissuade from coming to Oxford to try the experiment every one of whose case, from previous communications, he entertained any doubt. Possessed at this time of affluence, he became very indifferent about business, and, at a time of life when he was still capable of active exertions and his strength was but little impaired, he began to contract his practice. For the last ten years of his life he had wholly given up his profession, except in the instances of his rubbing patients."

It may be worth while to mention the cases in which Mr. Grosvenor found massage most serviceable, inasmuch as its value in similar cases has since been confirmed by others. "First, contractions of the joints, unattended with inflammatory symptoms, proceeding from cold, dampness, or rheumatism, attended with languid circulation, and thickening of the ligaments. Secondly, in those cases where there is too great secretion of the synovial fluid, particularly in the knee-joint. Thirdly, after wounds in ligamentous, tendinous or muscular parts, where the function of the limb or part is impaired; but here it should not be made use of till the inflammation and tenderness have subsided. Fourthly, in cases of paralysis. Fifthly, those of chorea, combined with attention to the system. Sixthly, Violent strains of joints, when the inflammatory symptoms have entirely subsided.* Seventhly, in incipient cases of white swelling this is almost the only remedy that has been found effectual, and it has frequently happened that joints absolutely condemned to the knife, and on the point of being amputated, have been saved and their use restored by this method. After fractures of the articulating extremities of the joints, as when the bones are united, a stiffness generally remains. In all the various dislocations of the joints, when the motion of the joint is left impaired, after the inflammation has subsided. After ruptures of tendinous or ligamentous parts, provided they are firmly united."

Another "quaint and curious volume of forgotten lore," is that of "Illustrations of the Power of Compression and Percussion in the Cure of Rheumatism, Gout and Debility of the Extremities, and in Promoting Health and Longevity. By Wm. Balfour, M.D., Edinburgh, 1819." Dr. Balfour claimed for himself the originality accredited to Dr. Grosvenor by his friends, viz., that of discovering a new method of treatment, without inquiring if there were any previous data to start from. This fact, however, makes their testimony all the more valuable and unbiassed, which we can doubtless trust, for they were eminent practitioners in their day, and any one who reads their books would certainly say honest as well. Dr. Balfour's book is mainly made up of reports of cases of rheumatism, gout, neuralgia, sprains, and the results of injuries treated by means of percussion, deep rubbing, and firm compression with bandages. The cases are well reported, and are interspersed with forcible and philosophical remarks. Those who revived tight strapping in sprains a few years ago would have done well to have first looked into old Balfour. The following from the introductory chapter is a specimen of how the doctor regarded those of his professional brethren who did not adopt his views so readily as he thought they should have done. "Medical practitioners encourage their patients in giving perfect rest to parts affected with rheumatism and gout, till, as often happens in the latter disease, the vessels change their actions altogether. It is incumbent on such practitioners to show that there is greater security to life in painful, rigid, and swollen limbs, and in frequent and long confinement, than in the free and equable circulation of the blood through every part of the body and in exercise in the open air. It is incumbent on them to show that life is more secure when the functions of the body are imperfectly than when duly performed. . . . . It was observed by Lord Bacon that knowledge more quickly springs from absolute ignorance than from error. It is much easier, surely, to instruct the ignorant than to convince the prejudiced. But, in spite of the hostility that has been shown to the practice illustrated in the following pages, I have the satisfaction to see it adopted at last by physicians of the first eminence.* It may with truth be affirmed that there never was an important improvement made in the practice of medicine yet but what met with opposition. Mercury, bark, cold affusions in fever, vaccination, all experienced it. Nay, Harvey himself lost his practice on account of discovering the circulation of the blood."

From his own extensive general practice, Dr. Balfour selected cases for his new method of treatment. Many of these, from a state of chronic invalidism, improved rapidly and got well, and there were but few who did not receive some benefit. His remarks on the effects of percussion have not yet been excelled; nothing in the recent German reports on

* Its application does not, by any means, contravene the [illegible] to which it owes [illegible], in the words of Berghmann and [illegible] "[illegible] and unobtrusive, further and [illegible] [illegible] [illegible]

massage equals them. Says he: "Whoever has the slightest acquaintance with natural philosophy and chemistry knows that percussion produces wonderful effects on inanimate bodies. A mason will cut a stone of immense thickness perpendicularly through by a few strokes of a hammer. A few strokes of a hammer will drive home a nail on which an immense weight gradually applied would have little or no effect. A smith's anvil may be made hot by continued and forcible hammering. Is it surprising, then, that a power which produces such wonderful effects on inanimate matter should exert a powerful influence on the living body? If I apply percussion in the course of the sciatic nerve of a person laboring under sciatic rheumatism, a pleasurable vibration will be communicated through the whole limb, the nervous power being thereby diffused. If I apply percussion to a paralyzed limb, I thereby attract to it the nervous energy. If I apply percussion to limbs debilitated by rheumatism, gout, or old age, I thereby excite the action of the vessels and nerves, promote the circulation, and restore that heat of which they are deprived through inactivity and the weakness of the powers of life." *

A paragraph from Estradère will indicate sufficiently the state of massage in France in 1863, and, so far as I can learn, at the present time also: "Although numerous observations upon the benefits of massage in certain affections have been communicated to the Academy of Sciences and other learned societies; although some physicians became alarmed at the enormous practice of an empiric, Moltenot, who *masséed* at Orleans in 1833, and entreated the Court of Justice for a sentence against him; although Récamier and his pupils, Séguin and Maisonneuve, had lectured upon massage before all the learned societies; although in these times the most distinguished physicians of Paris very often prescribe massage; yet, for all that, it is still under the domain of empiricism, because physicians are content with indicating its therapeutical results, without interrogating anatomy and physiology for the reasons of these results. Nevertheless, this age has a tendency toward improvement in this matter, and already the physiologists have given some satisfactory explanations of the effects of massage, passive and mixed movements."

About seven years ago Dr. Mezger, of Amsterdam, treated the then Danish crown prince successfully for a chronic joint malady by means of massage, which he used in a manner original to himself, and in accordance with the teachings of physiology and pathological anatomy. When the prince got well he sent a young physician to Amsterdam to study Dr. Mezger's method of applying it, and soon after many old as well as young physicians visited the clinic of Mezger, and they all agreed that the so-called massage, used in Mezger's manner and according to the indications which a very large experience has enabled him to point out, is a most worthy agent in various affections of the joints, besides in inflammations and neuroses. They consider that credit is due to Mezger for having improved massage in a physiological manner, and for having brought it to be acknowledged as a highly valuable method.

A few extracts from the very excellent and comprehensive report on massage, in *Schmidt's Jahrbücher*, Vol. 166, 1875, will show the estimation in which it is held by some of the first German physicians. The reporter begins by saying that "it is but recently that massage has gained an extensive scientific consideration, for it has passed out of the hands of rough empirics into those of scientific, cultivated physicians; and, upon the ground of the results of recent scientific investigation, it has been cultivated into an improved therapeutical system. The Danish physician, Mezger, has won the merit of having made massage in its entirety a special branch of the art of medicine." Then follows a list of forty articles on massage, by a score of authors, mostly Scandinavian, only one being American. The manner of using massage and its physiological action are next described; and, after this, the results of massage in similar cases, treated by different authors, are grouped together and compared—so many cured, so many benefited, and so many not relieved. The report concludes by saying that, "if massage is to be of any use, it ought to be applied by those who are absolutely physicians; for the brilliant results which have just been cited depended upon an exact knowledge of anatomy and physiology, and also upon recent progress in medical and surgical pathology, which enabled the operators to make an accurate diagnosis. A very important part of the qualifications necessary for the effectual performance of massage depends upon the physical qualities of the manipulators; they require strength of hands and fingers, endurance and elasticity, which every physician does not possess; and herein lies the danger that the practice of massage will pass into the hands of the laity, who, again, have not the other requisites, viz., medical knowledge." *

It would not be doing justice to this brief historical sketch of massage to omit the description of *lomi-lomi* given by Nordhoff in his "Northern California, Oregon, and the Sandwich Islands," 1874. "Wherever you stop, for lunch or for the night, if there are native people near, you will be greatly refreshed by the application of *lomi-lomi*. Almost everywhere you will find some one skilled in this peculiar, and, to tired muscles, delightful and refreshing treatment. To be *lomi-lomied* you lie down upon a mat, or undress for the night, if you prefer. The less clothing you have on, the more perfectly the operation can be performed. To you thereupon comes a stout native with soft fleshy hands, but a strong grip, and beginning with your head and working down slowly over the whole body, seizes and squeezes with a quite peculiar art every tired muscle, working and kneading with indefatigable patience, until in half an hour, whereas you were weary and worn out, you find yourself fresh, all soreness and weariness absolutely and entirely gone, and mind and body soothed to a healthful and refreshing sleep. The *lomi-lomi* is used not only by the natives, but among almost all the foreign residents; and not merely to procure relief from weariness consequent on over-exertion, but to cure headaches, to relieve the aching of neuralgic or rheumatic pains, and by the luxurious as one of the pleasures of life. I have known it to relieve violent headache in a very short time. The chiefs used to keep

* Percussion can be performed in half a dozen different ways with the hands and fingers, varying in force and rapidity. I have recently had two india rubber air balls, securely fastened on the ends of whalebone handles, for this purpose. Balls 2 in. diameter, and handles 11 in. long, are most suitable. They work most admirably, as one gets the spring of the whalebone with the rebound of the balls, thus gaining great rapidity of motion, with easily varying intensity. It takes considerable practice to become expert in using them.

* Prof. Von Mosengeil, of Bonn, speaking of massage, says: "Its value must be recognized; but it is not adapted for every day use by every physician; nor will it be much used in hospitals, for lack of time. The best results will be obtained by the few who bring to its use abundance of time, patience, skill, and strength. Specialists, therefore, will probably get the most satisfactory results from it. (Arch. f. klin. Chirurg., XIX., 4, 1876.)—D. G.

skilful [illegible] men and women in their retinue, and the late king, who was for some years his guest, to take exercise, and was yet a gross feeder, had himself [illegible] after every meal as a means of helping his digestion. It is a device for relieving pain and weariness which seems to have no injurious reaction, and no drawback but one: it is said to fatten the subjects of it."

Though massage in some form or other is in all probability a primitive institution among all nations, yet the word *skilful* is not good applied to Nordhoff; for some people have a natural tact, with a peculiar quality of strength and structure of hands, which render them vastly superior as manipulators. Add to these the improvement acquired by long practice, and the enlightened experience which a medical education alone can lead to, and we have such a person to use massage as those only will appreciate who have had less favored manipulators apply it to them. It is a pity that there are not more epicures in this matter, who would willingly place the different operators in massage on their merits, irrespective of the policy of others in employing ignorant and incompetent [illegible]. There are as great variations in hands for massage as there are in voices for singing. A person who has a naturally charming voice well cultivated is estimated very highly; a person who has by practice and education cultivated the use of a pair of hands excellently adapted for massage, probably never will be estimated [illegible] highly or rewarded [illegible] highly, but the efficient work which they can do is second to no other of a different kind, and it is as soothing, charming, and beneficial to many invalids as sweet music is to those who are harassed with the corroding cares of life.

"[illegible] is said to fatten the subjects of it" (by stimulating the nutritive processes). This, with the above remarks about the late king of the Sandwich Islands, might easily have furnished an indication to the purpose for which massage was used in the class of cases described in the very interesting little book entitled "Fat and Blood, and How to Make Them," which was not published until three years after Nordhoff's [illegible] sufficient time to give the suggestion a trial. The author of "Fat and Blood," in the chapter on massage, says he has some facts to relate with regard to it which, he thinks, are not known on either side of the Atlantic. In view of this statement, these facts ought to be of great value. What are they? and what is the author's own estimate of them? Evidently they are the changes of temperature produced by massage. "These facts are, of course, extremely interesting," says Dr. Mitchell, but it is well to observe that the success of the treatment is not indicated in any constant way by the thermal changes, which are neither so steady nor so remarkable as those caused by electricity." The reviewer of "Fat and Blood," in the [illegible] *Journal of the Medical Sciences*, January, 1878, attaches a great deal more importance to these changes than the author himself does; says he: "Although it has been noted by Trousseau that the increased warmth of the skin produced by massage is due to the more active cutaneous circulation, it was reserved to Dr. Mitchell to put this point on an exact scientific [illegible] by a series of [illegible] observations." If the success of the treatment is not indicated by these changes, of what value are they on a scientific basis? It is not very clear that they have any relation to a scientific basis at all in the class of cases referred to, for, by the author's own confession, they may, to all intents and purposes, be disregarded so far as any utility is concerned.

MILK WITH LIME WATER IN SCROFULOSIS.

By E. N. CHAPMAN, M.D.,

[illegible]

THERE is a large proportion of children in every community whose vitality is below the normal average. They sicken on slight provocation, respond poorly to remedies, and, before the cure is attained, succumb to some new ailment. Exciting causes that would be inoperative in a well-balanced constitution meet with feeble resistance, and disorders that nature should successfully combat linger in an atonic form, in spite of the care of the mother and the skill of the physician. Morbid action extends from point to point, implicates the most diverse structures until, eventually, the whole [illegible] is involved in a general revolt against those laws, the harmonious operation of which constitutes health. The [illegible] is imperfect, the assimilation imperfect, and the blood depraved; the nerves are irritable, the secretions defective, and the excretions insufficient. The repair and waste are not in accord; the new and the old materials load the circulation, and the [illegible] by which food is worked up into vitalized, and thrown off in devitalized products, are slowly and imperfectly accomplished. As a necessary result, every [illegible] of the body is prone to many forms of disease, usually of the inflammatory type, which, however active it may appear, is always of a low grade, and never bears a reducing course of medication.

In a strumous person there is a defect at every stage of that preparation by which the food is converted into the living organism. The machinery having been poorly constructed, the work is of course poorly done. What is worse, the fault is usually inherent, and dates back to a hereditary taint, developed in the ancestral line years before the subject saw the light.

To overcome this vice, and institute a new order of things, the attempt is made to supplement the defects of digestion by adding to the diet, and to correct the error of assimilation by administering drugs. A bitter is given to excite the appetite; pepsin, to aid the stomach; pancreatine, to emulsionize the fat; meat, to make muscle; phosphorus, to nourish the brain; iron, to color the blood; and oil, to impart heat. All this while, as the indications seem to require, the phosphates, iodine, cod-liver oil, etc., are employed to revolutionize the system, and bring order out of disorder.

These means, even when aided by the most favorable hygienic influences, are rarely of more than temporary advantage. The evil, suppressed but not conquered by the resources of art, soon rises in rebellion, reasserts its supremacy, and reduces the organic forces into subjection. The support being taken away, and the economy thrown upon its own resources, the various functions give way, fall into disorder, and leave the way open to the old enemy. In a word, this course demands constant surveillance, [illegible] a seeming advantage, but never wins a lasting victory.

The trouble in scrofulosis is not a deficiency of nutritious elements in the food, but a lack of preparation for absorption and assimilation. There is an abundance of albumen, sugar, oil, phosphorus, iron, and lime, and yet these constituents, so essential to health, do not reach the blood in a state fitted to meet the wants of the system. [illegible]

portion, being but imperfectly acted upon by the gastro-intestinal secretions, passes off in the fæces. As a consequence, the blood is starved and the constitutional force reduced to a low ebb. In a healthy person, on the contrary, all these elements are extracted from the food and appropriated by the system. They are never needed as medicinal agents. This source is the proper one—the one always offering an abundance, and that of the best. An artificial supply can accomplish nothing more than the natural, unless means are first instituted to improve the digestive processes, as both must undergo the like changes before they can gain an entrance into the lacteals. Otherwise, the digestion will be more oppressed and the blood more deteriorated.

The true plan is not to give more and richer, but less and simpler food; not to increase, but to lessen the work of the stomach; not to attempt an artificial, but to restore the natural digestion; and not to depend upon drugs, but to regulate the diet. Fortunately, milk answers every requirement and is better than anything else, as it is capable of filling the place of both food and medicine in many grave emergencies. It is the only nourishment at the earliest period in the life of the mammalia; it contains all the elements of nutrition in the proportions needed to build up and sustain the animal frame; and it is the most digestible of all articles, when the casein has been rendered soft and flocculent by the addition of lime-water. Imposing little labor on the stomach, the milk restores its tone; prepares the way for other food; offers a better chyle to the lacteals; renovates the blood with new material, and nourishes every part with the albumen, oil, phosphorus, iron, lime, etc., needed to renew its energy and restore its integrity. In a word, the milk meets every indication in alimentation and medication.

LYMPHATIC GLANDS.

When scrofulosis manifests itself in a mass of enlarged, indurated glands that eventually suppurate, it is seldom possible to disperse them and eradicate all traces of their previous existence, save the white line left in the track of the knife. Meat fails to give strength, iron to make blood, quinine to brace the nerves, phosphorus to feed the brain, and iodine to correct the constitutional depravity. Wine, air, exercise, recreation, travel, and the many other agencies invoked with such signal advantage in most chronic disorders, are here important. Indeed, all accepted dietetic, therapeutic, and hygienic means, seem rather to clog the wheels of the vital mechanism, or at least to impart no permanent force to that already present. The faulty nutrition goes on, and declares itself at various times and in various ways until the advent of puberty, when the completion of the growth lessens the drain on the nutritive fluids, and allows nature to husband her slender stores.

Some four and a half years since a poor woman brought a son of hers, about seventeen years of age, to my office. He was markedly strumous; had always lacked blood, nerve, muscle, and force, and now presented a chain of glands on the right side of the neck that extended along the line of the sterno-cleido-mastoid muscle. These glands, much enlarged and intensely inflamed, soon suppurated, and were lanced. Holding an out-door position in an insurance company, the boy had been obliged to do a good deal of walking. This, together with a poor diet, seemed to have exhausted his nervous energy, and precipitated this greater manifestation of scrofulosis.

The glands, when they had fully maturated by the aid of poultices, were lanced, and then, while they continued prominent, were painted with the tincture of iodine. Rest and quiet were enjoined for a couple of weeks, and iron and quinine administered alternately for some two or three months. The main thing, however, was the regulation of the diet so as to adapt it to a weak stomach and insure a more perfect digestion. At first the patient was confined to milk, and milk scalded in a thin decoction of farina, with the exception of a sparing allowance of bread, crackers, and ginger-bread. As his appetite improved, oatmeal, an egg, potatoes, and broth, were added to the dietary; and, as his strength permitted him to take active exercise in the open air, milk was omitted at the mid-day meal, and fresh meat and vegetables substituted. This diet, with some substantial additions at breakfast, was followed for three years, and then discontinued, as further care seemed unnecessary.

He was strong and hardy; showed no signs of struma, not even indolent glands; joined a military company, and bore the strain on muscle and nerve as well as the others.

In October, 1878, he contracted a severe bronchitis, and some weeks after came to me, under the impression that he had tubercular disease of the lungs. Nothing was detected, however, more serious than mucous inflammation. This being subdued, he soon regained his health.

In August, 1877, I had another case of scrofulosis, identical in almost every particular with the preceding: The glands were on the same side of the neck, had the same location, presented the same appearance, disappeared in the same manner, and left only the same white line. The medical treatment consisted of quinine and iron, the dietetic of milk with lime-water, and the hygienic of air and exercise. At first he took milk alone; subsequently, milk with bread, oatmeal, potatoes, and fruit; and, at last, when he was strong enough to be out of doors, a plain meat dinner in the middle of the day. As in the previous case, the appetite was kept in advance of the supply, the regularity of the bowels promoted, exercise restricted to a point short of fatigue, and exposure to air and sunlight advised.

In the fall he had improved wonderfully in flesh, spirits, color, and strength, and during the winter he became as hale and hearty as other persons of his age. His appearance was far better than that of his brothers and sisters, whose pale and bloodless looks were in strong contrast with his full, ruddy face. The milk diet was followed for nearly a year, and then discontinued, as there seemed to be no further need of such stringent rules.

This young man was about a year older than the other, had nearly completed his second year in college, and had the ability, from his station in life, to conform to medical advice and obey the laws of health. In both cases, however, the removal of the cachexia, and the institution of healthful nutrition, was attained in about the same period of time. The success seemed due to the diet solely, and not to its accessories.

A plan of diet that can, after the failure of recognized methods of treatment, transform a weak and delicate into a strong and sturdy boy, and fit him to take his place beside those of robust constitutions in a prolonged course of severe training, must have a virtue in it meriting general recognition by the profession, although it places the theories so recently elaborated by physiologists and chemists in a light more than questionable.

In August, 1877, I was called to see a young man,

G. H., eighteen years of age, suffering from gastric fever. His digestion had always been sluggish, his assimilation poor, his muscles flabby, his nerves irritable, his health uncertain,—common characteristics of the lighter manifestations of the strumous diathesis. Though rarely ill, he had little endurance, lacked the wild, exuberant, animal spirits of youth, and had never exceeded one hundred and eight pounds in weight.

In June, 1876, he presented himself at the Naval Academy for examination, but was rejected as wholly unfitted, by his slender physical organization, for the severe ordeal to which the cadets are subjected. At this verdict he was greatly depressed, as it had always been the one great desire of his heart to follow the profession of his father, now some years dead.

The fever abating kindly, the stomach acquiring tone, and assimilation becoming active by the use of milk to the exclusion of all more stimulating articles, I told him that, by a rigid course of this character, followed for some months, he might yet attain to the vigor of body necessary to fit him for the naval service, and carry him through its hardships. He eagerly embraced the proposition, and, on the instant, was ready to meet any privations promising such full realization of his hopes.

That he might act knowingly, and follow the treatment faithfully, it was explained to him why the consumption of meat would not necessarily make muscle, or of oil, fat; or the taking of iron, blood, or of phosphorus, nerve-power; and why rich food and active medicine would almost certainly, were the digestion labored and the assimilation imperfect, intensify existing evils, and further obstruct nature in her attempts to perfect her varied vital elaborations.

The proper plan, as I strove to impress upon him, is, on the contrary, to relieve the overworked stomach by the use of food easily and promptly digested; to improve assimilation by the selection of articles containing the elements of nutrition in the proportions demanded by the wants of the system; to discard artificial aids—those designed more especially to force digestion and assimilation; and to rely solely on diet for the institution of those physiological changes whereby to set free the natural forces, and render them competent to their task.

In accordance with this plan, he was advised to take active exercise in the open air, to eat regularly and moderately, to abandon tea, coffee, spices, condiments, luxuries, and heating food, and to live almost exclusively on milk, prepared with lime-water and salt. A gobletful was to be taken at breakfast, supper, and bedtime, but not at the mid-day meal, which was to be more substantial, consisting of beef or mutton, bread, potatoes, and other vegetables. Acid fruits were allowed freely at all times of the day, for the purpose of exciting the liver and the intestinal glands, regulating the bowels, renewing the blood, and promoting the secretions and excretions. At breakfast, with the milk, were permitted bread and oatmeal or wheaten grits; and at supper, bread, crackers, and gingerbread.

As for medicine, he took for a while quinia and cinchonia, and then colombo and the pyrophosphate of iron.

By following this dietary for eight months, though he received no aid from other sources save these tonics, he developed into a vigorous young man, the picture of health, and gained thirty pounds in weight. Applying for admission into the marine service, as less exacting than the naval, he had no difficulty in passing the ordeal. One of the examiners of the Naval Academy, a friend of his father, told him that he would have been accepted by the board without the slightest hesitation, had he then presented such a fine physique as now.

As showing the complete revolution effected, and the permanent benefit conferred by the milk diet, I should mention that, though the boy had to give up milk and conform to the regulations of a revenue cutter, his health remained intact, and his vitality equal to that of his comrades. At the present time, he holds his own with the most active and athletic, and stands at the head of his class.

In Pott's disease of the spine there is an urgent necessity for a more healthful nutrition, in order to check the disintegration going on in the bodies of the vertebræ, and supply the material for their repair. To attain this end, the quality of the food, the activity of the digestion, and the completeness of the assimilation are the main factors, inasmuch as the various structures are being constantly renewed by the product thus prepared. If the new material that replaces the old be more highly elaborated and better furnished with the elements of nutrition needed by the several parts of the organism, the foundation will be laid for permanent improvement. Now other helps are available—mechanical contrivances to support the shoulders and straighten the spine, and therapeutic means to fortify the system. If the diet be neglected, or directed without regard to the feeble powers of the stomach, the assimilation will become still more defective, and the disease still more intense, however skilfully an apparatus may be adjusted and medicine administered.

Moreover, in most cases of caries of the bones, the scrofulous cachexia is pronounced—a condition in which the taking-down and building-up processes are accomplished imperfectly. There is need, not of more, but better material; not of richer, but simpler food; and not of greater, but less work for the stomach, as already the digestive organs stagger under the burden imposed, and are incapable of acting more energetically.

The vice of scrofulosis so generally resists the best efforts of the physician, that, should disease of the bones supervene, he would anticipate little good from diet and medicine. On the contrary, his chief hope would be in mechanical devices and the silent influence of time, growth, air, sunlight, exercise, and the like.

H. B. fell, when fourteen months old, from the third-story window to the piazza below. As he fell, his back struck a blind partly open. At the time his injuries did not seem serious; there was not even a bruise to be seen; but, after a while, he was restless and peevish, cried a great deal, and screamed when moved.

Contracting pertussis in his fourth year, this pain in the back, which had steadily increased from its first appearance, was greatly aggravated by the paroxysms of coughing. Soon there was local tenderness and a projection of two or more dorsal spines. The deformity increasing, the erect posture became more and more intolerable.

In a few months the progress of the disease was so rapid, and the intensity of the suffering so severe, as to demand the use of an apparatus. This supported the weight of the upper part of the body, relieved the more urgent symptoms, promoted sleep, and allowed exercise, but accomplished little toward a cure.

Whenever his stays and braces were removed, the angularity of the spine seemed as great as, if not greater than before, and the old pains returned in full force. The boy did not improve in flesh or blood,

and appeared weary and worn. This while he had taken tonics and a full animal diet.

After the trial of the apparatus for eight months, it was determined to adopt another plan of feeding: one much lighter, less stimulating, and more assimilable, consisting of milk with lime-water, and vegetables, to the exclusion of meat, except at the midday meal. For breakfast he had milk, oatmeal, and bread; for dinner, broth, potatoes, bread, and rice; and for supper, milk, bread, and ginger-bread. He also had milk at ten in the morning and at nine in the evening, and, at all times, an abundance of acid fruits.

This plan, adopted in the fall of 1874, was steadily followed until the boy's improvement seemed to justify a larger range in his dietary. It was, however, as late as the winter of 1878 before he was allowed to eat at the table with the others. In the meantime the bodies of the vertebræ had become consolidated, the spine straight, save a knuckle-like projection, his body vigorous, and his health perfect.

At this date (June 15, 1879) he is as active as his fellows, stands erect, joins in rough sports and active games, and presents no peculiarity, except a slight disproportion between the length of his trunk and limbs. His height is three feet eleven and one-quarter inches, and his weight fifty pounds—a development equal to many boys of nine years—his present age.

If the milk diet can thus revolutionize digestion and assimilation, renew the normal play of the physical forces, and convert an unstable into a stable organization, and that, too, when the seeds of scrofula have taken root and borne fruit, may it not at an earlier day forestall their germination and growth, and give the child a good chance in the "survival of the "fittest"? This certainly has been the case whenever a proper plan of feeding has been adopted. In such children the digestion is good, the nutrition active, the face ruddy, the body solid, and the nervous system well balanced; and rarely do the manifold ills, so common to the lymphatic temperament, disclose themselves. This holds true, even when the surroundings are none of the best, and the laws of health are violated in many particulars. The diet imparts a power of resistance that renders exciting causes inoperative.

Were children fed with due care, struma would in two or three generations be eradicated, the public health improved, the general efficiency increased, and the common happiness advanced. Even poverty would be more tolerable when strong arms fought the battle, and crime less prevalent when healthy blood nourished the heart and brain.

The milk diet being thus efficient in the scrofulous diathesis, both as a curative and preventive agent—one that steadily and silently furnishes the means of renewal and regeneration to the tissues—it is not too much to expect similar results in other diseases, the sequels of depressed vital action.

Scrofula and phthisis are near of kin, the one being often the parent of the other. At least, each springs from a common stock, and presents the same general characteristics. In tuberculosis, the treatment revolves about one central idea: the support of the vital forces in their effort to throw off the disease. The main point always is the power of resistance.

As these two diseases present the same indications, and are, perhaps, only different stages of the same pathological condition, good results ought to be attained at an early stage of tuberculosis by the milk diet.

In 1875 a boy, three years of age, slowly recovering from an attack of gastric fever, was taken with a violent paroxysmal cough. This reduced him very much. He loathed food, perspired at night, and lost flesh. At a small circumscribed space in the upper lobe of the right lung the vesicular murmur was absent and the percussion-note flat.

Thinking the case serious, I told the parents that their boy would soon run down with consumption unless they disregarded his fancies and caprices, and enforced a systematic plan of diet; and, on the other hand, that he might possibly resist the disease and regain his health, were his appetite and digestion so restored as to afford him the requisite strength.

Compliance with rules being promised, the boy was ordered the half of a tumblerful of milk with a tablespoonful of lime-water and a grain of salt every two hours. All else, whether food or medicine, was interdicted, with the exception of twenty drops of whiskey to each feeding. Subsequently, as in the cases related above, other articles of food were added, and quinia and cinchonia given.

Near the close of my attendance, cod-liver oil, with the phosphates, was substituted for these alkaloids, and, in conjunction with the milk diet, continued four or five months.

Although the prognosis was still grave, as the permeability of the lung had not improved, yet there was cause for encouragement, as there had been a steady improvement in flesh, blood, and nerve. Eventually, the lung regained its normal condition, and now the boy seems as well as any of his playmates.

In the fall of last year a case similar to the last came under my care. There were present anorexia, emaciation, and cough, preceded by gastric disorder, and attended with dulness and harsh râles at the apices of both lungs. The treatment, with the exception of cod-liver oil and the phosphates, was the same, and the result equally fortunate, but secured in a much shorter space of time. The milk was continued alone until the digestion resumed its office, and the appetite demanded a more substantial regimen, when, as before, a greater latitude of choice was permitted.

In both of these cases there was, doubtless, at the start, a congestive condition of the gastro-intestinal mucous membrane, similar to that described by the older writers as worm fever. This congestion resolved itself under the influence of a bland, unstimulating diet, and set free the various glandular secretions, the office of which is to transform the food into chyle and prepare it for absorption by the lacteals. The digestion being thus restored, the blood was supplied with proper material, the nutrition placed on a healthful basis, and the lungs rescued from impending danger.

To me it seems plain that, however urgent the call may be to invigorate the patient and augment his vital resistance, it is of the first moment to adapt the means to the capacity of the stomach. Strong food and active medicine are not unfrequently out of place before a simple plan of diet has relieved the irritability of the *primæ viæ*, and restored the digestive organs to their normal activity.

Scott's Emulsion of Cod-Liver Oil.—Dr. J. E. Garretson, of Philadelphia, writes that in phthisis he has used the emulsion with hypophosphites of lime and soda with notable success. When cough is troublesome he combines atropia with it; and when it does not digest well he adds sulphuric ether, diluted with two parts of alcohol, the ether being regarded as a stimulant to the pancreas.

A UNIQUE CASE OF COMPLETE PHARYNGEAL STRICTURE OF SPECIFIC ORIGIN.

By JOSEPH MEYER, M.D.,

EX HOUSE PHYSICIAN TO CHARITY HOSPITAL, N. Y.

(Reported with Prof. Oertel's permission from his Clinic at München.)

A MAN, thirty-three years of age, had a chancre three years ago, followed by eruptions of secondary syphilis, which got well under mercurial treatment. For the past year he had no specific trouble of any kind, and no treatment, until Dec. 25th. He then began to complain of a sore throat, which, with ordinary remedies, got no better, but rapidly worse. On the 10th of January he presented himself to Prof. Oertel at his clinic, when, upon examination, the posterior wall of the pharynx, and sides of the pharynx and uvula were inflamed, reddened, and infiltrated; on the uvula beginning ulcerations were noticed, also on the surface of the tonsils. At this time a gargle was ordered, and he was asked to call again in a few days. Prof. Oertel having been called out of town on the 13th of January, the patient did not again present himself till the 15th, when he was brought into hospital in a dying condition, almost suffocated, with intense dyspnœa, breathing long and wheezing, inspirations 10–12 per minute, pulse almost imperceptible, surface of body cold, face and hands cyanosed, and almost voiceless and speechless. Examination by Professor Nussbaum gave little satisfaction, simply showing an occlusion of the laryngo-pharyngeal space by a stricture, ulceration of posterior pharyngeal wall in a reparative condition, uvula drawn to right pillar of pharynx and there attached; and perforation of soft palate. What condition the larynx was in could not be determined; opening through which he breathed could not be seen. It was supposed that the ulcerative process had destroyed the epiglottis, and closed the upper portion of the larynx. The indication was tracheotomy, which was immediately performed by Professor Nussbaum, with prompt relief to the patient, so that he was able to leave the hospital in a few days, after having been put on mixed treatment. On the 25th of January he again presented himself to Professor Oertel for further treatment. Examination showed an almost complete stricture of the pharynx, extending from the base of the tongue to the sides and posterior wall of the pharynx, a small opening, not even admitting a probe, a little to the left of the centre of the stricture, which formed a sort of lid over the larynx and œsophagus. Through this small opening the patient took food and breathed. Posterior wall of pharynx of an ash-gray color, presenting an arch-like appearance. No more ulcerations; soft palate perforated and uvula attached to right side of pharynx. Patient wore a tracheal tube; now only had occasional attacks of dyspnœa, with an occasional choking and coughing when he attempted to swallow quickly. He could only take liquid food, but sufficient to sustain him. Opinion of Professor Oertel was same as that of Professor Nussbaum, that epiglottis was destroyed and upper portion of larynx was closed by the stricture. Condition of vocal cords not known; how larynx closed during deglutition—for food and air passed through the same small opening—was not known. I thought, and Professor Oertel agreed with me, that during the act of deglutition the base was lifted and drawn backward in such a way as to approach post-pharyngeal wall, bringing the small aperture over the œsophagus, at same time closing the larynx, the closure being aided by the aryteno-epiglottidean folds, which, although they could not be seen, were supposed present, and cases of complete destruction of the epiglottis, reported by Bruns, Türck, etc. Its function was known to be replaced by those folds, and in my opinion aided by the tongue (base) approaching the pharyngeal wall. Professor Oertel proposed to operate; to dilate the opening with a knife. Sounds were passed every other day to get the patient used to an instrument, till February 10th, when the first operation was performed. An incision was made forward toward the tongue; bleeding was slight; he was ordered to gargle cold water. At this time it was noticed that he could gargle much easier. When he was asked if it pained him, he said, "only a little" so distinct that everybody present understood him, he having been almost voiceless and entirely speechless. This operation was followed by two more on the 13th and 18th of February, two lateral incisions then having been made; opening would then admit a finger. Examination after second operation showed, to the astonishment of all present, that the larynx was perfectly intact, epiglottis was entire, vocal cords were normal. He could now breathe without the tracheal tube, deglutition was no more interfered with, and the patient rejoiced in the fact that he was again able to drink lager-beer.

The principal points of interest in this case are the completeness of the stricture, its seat, the rapidity of the ulcerative process, the rapidity of the reparative process at the time without specific treatment, and the larynx being perfectly intact.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

SPRAINS.

THE routine treatment of sprains is that first introduced by the late Dr. Paul Goddard. The injured part is placed in a bath at the temperature of 70° F. The temperature of the water is then gradually raised until the extreme point of toleration is reached. This hot-water treatment has in every instance been followed by the most excellent effects.

GONORRHŒA IN THE MALE.

Dr. J. H. Brinton employs carbolic acid, in the shape of a solution containing gtt. ij. of the acid to f. ʒi. of lime-water, as a local application in the acute stage of the disease. At the same time cubebs is administered internally in doses of a tablespoonful in half a tumblerful of water three or four times a day. This dose is pushed until diarrhœa or nausea supervene, when the quantity is reduced.

STRICTURE.

Dr. S. W. Gross considers that the only rational treatment of stricture consists in the restoration of the normal calibre of the urethra at the affected portion, and that the meatus should therefore be enlarged so as to admit of the passage of an instrument of the size adapted to restoring the constricted part (whose dimensions may be ascertained by means of the urethrometer devised by Dr. Gross) to its original dimen-

sions. Dr. Gross claims, however, that *dilatation never effects a permanent cure*, and should therefore never be employed except in those cases where there is disease of other portions of the urinary apparatus.

He treats stricture almost entirely at present by internal urethrotomy, since he has determined from post-mortem examinations that there are very often submucous bands which resist the action of the divulsor.

Having determined upon internal urethrotomy, he first allays the spasm and tenderness of the urethra by passing at first, and at long intervals, a moderate-sized conical steel bougie, gradually increasing the size of the instrument and decreasing the length of the intervals. If the meatus is the seat of stricture, or is smaller than the rest of the urethra, it is cut as a preliminary measure.

Ten grains of quinia are given before the operation, and the patient is made to pass his water so that the wound made by the urethrotome may have become glazed before the next act of micturition. The rectum is always emptied before the operation. Dr. Gross employs a urethrotome devised by himself, and made by Mr. G. Tiemann, of New York.

Immediately after the operation a conical steel bougie, whose size corresponds to that of the normal urethra, is passed and withdrawn, and one-third of a grain of morphia is thrown under the skin. The patient is then confined to bed for forty-eight hours. The bougie should be introduced once every day for some time after the operation. Dr. Gross considers internal urethrotomy from behind forward the most effectual operation.

The treatment of stricture of the urethra followed by Dr. Brinton is not an exclusive one. In the majority of cases he relies upon gradual dilatation, especially when the stricture is situated at or near the membranous portion of the urethra. In making dilatation he uses the ordinary Thompson's sound, and when much resistance is encountered he stretches the stricture rapidly with Thompson's dilating blades. In strictures of the spongy portion of the urethra, when, from any cause, slow dilatation is undesirable, he practises divulsion by Holtz's method, and also internal urethrotomy, using for the latter purpose an ordinary Charrière's instrument. He prefers urethrotomy to divulsion, particularly in irritable and resilient strictures. Strictures at or near the meatus he divides. In practising the common process of gradual divulsion, when the stricture is tight and the opening small or tortuous, he usually employs whalebone bougies and Gouley's tunnelled catheters. The whalebones he makes himself, and they are very much finer than those to be bought in the shops, which, nine times out of ten, are not sufficiently flexible, and are therefore useless. Dr. Brinton insists with great emphasis upon the permeability of all strictures, with occasional exceptions, *i. e.*, those of traumatic origin. In difficult cases the passage of the whalebone is a work demanding great dexterity and gentleness, and, according to this surgeon's teachings, cannot be confidently anticipated if the patient has been practised upon the same day with instruments of larger diameter and with rounded points. When a stricture is suspected, or known to be a tight one, he invariably uses first the whalebone and over it the tunnelled catheter, deferring to a later stage of dilatation, instruments flexible, or soft, of increased size.

In the practice of the Philadelphia Hospital Dr. Brinton deprecates unnecessary interference with the urethra. The patients in this institution are paupers collected from the lowest ranks of life, with constitutions utterly broken down by exposure and debauch. In his judgment the results obtained from operations upon such subjects are greatly inferior in point of success to those which attend like operations in private practice.

Progress of Medical Science.

Coto Bark.—Dr. Fronmüller and Prof. Balz have been experimenting therapeutically with coto bark, a plant whose botanical position is not yet settled by naturalists. The powdered bark and a tincture made of one part bark to nine of alcohol were employed, the quantity of the latter used varying from 0.50 grms. to 25.00 grms. a day. Out of eighty-five cases of colliquative diarrhœa, fifty were cured, twenty-six were benefited, and nine showed no results after the administration of the drug. In many cases the diarrhœa returned within a few days, but a repetition of the treatment effected a final cure. As a rule, the success was directly proportional to the dose, the medicine failing when small doses were used. The profuse sweating of phthisis was also controlled by it to a very considerable degree. Of ninety-one observations recorded by Fronmüller, it disappeared entirely in thirty-four, was diminished in twenty-six, and in eight was not affected. An alkaloid, termed *cotoïne*, is obtained from the bark by means of ether, which may be used instead of the substance itself, 0.15 grm. being equal to 5.00 grms. of the tincture. Another crystalline body, *paracotoïne*, is also obtained, and was used by Prof. Balz in cholera (See Vol. XIV., Medical Record, p. 450), but owing to the small quantity of the drug in his possession he was unable to form a satisfactory opinion of its action; the results, however, were sufficiently favorable to recommend its further trial.—*Bulletin Général de Thérapeutique*, April, 1879.

Tubercles of the Vagina and Cervix.—M. Cornil reported to the *Société des Hôpitaux* two interesting observations of this affection, one made by himself and the other by M. Rigal. The first case was a phthisical woman who presented a tumor of the lower part of the pelvic peritoneum, accompanied by uterine pains and leucorrhœa. Examination with the speculum revealed a superficial erosion of the cervix near the os, about half a centimetre in diameter, with sharply cut edges and a yellow base; on one side there were three small, slightly prominent, yellow points. The ulceration was touched with tinct. iodi., and rapid cicatrization set in; three weeks afterwards the patient quitted the hospital almost entirely well. An ulceration on the frenum of the tongue marked by the same yellow, tuberculous granulations, also cicatrized readily. In the second case, the autopsy showed a general miliary tuberculosis; the cervix and the vaginal walls presented a white granular plaque, not extending into the cavity of the cervix. M. Fournier in discussing the report admitted the rarity of tubercle of the cervix. He had on several occasions observed ulcers of the neck of the womb, the nature of which he could not determine; but the women were tuberculous, and he asked if these ulcerations might not be part of the disease. The history of tuberculosis of the cervix is as yet undeveloped, not being further advanced than that of tuberculosis of the tongue, before M. Trélat called attention to the yellow points. Among the scrofulous and phthisical, ulcerations are frequently observed which may be considered tuberculous. M. Cornil agreed with M. Fournier, but

doubted whether all the ulcerations observed in tuberculous patients could be attributed to tuberculosis.—*Bulletin General de Thérapeutique*, April, 1879.

The Climate of Nice and its Therapeutic Action. M. Grellety does not consider the climate of Nice favorable for phthisical patients. The sudden change of temperature in the evening is undesirable; nor are the inhabitants found to be less subject to the disease than are those of other cities. A Lyons journal complains that the vital statistics are not accurate, most of the deaths from phthisis being placed to the account of other diseases, for fear of frightening away the visitors; in like manner the reports of dangerous zymotic diseases are pigeon-holed. According to M. Grellety the true object of Nice is the cure of gout. The gouty, no matter what their condition, all receive benefit, providing they live properly, renouncing their bad habits and hygienic errors, remain sober, and live in the open air, taking sufficient exercise to oxygenize their blood and restore to the sudoriferous glands their normal activity.—*Bulletin General de Thérapeutique*, April, 1879.

Scleroderma: Treatment by the Continued Current.—Dr. Armaingaud states that he has obtained excellent results from a persistent use of the continued current in a severe case of scleroderma. The patient was a married woman, forty-one years of age; she had always enjoyed good health, but had never menstruated and had never been pregnant. The affection first showed itself in the neck, seven years before she was seen by Dr. Armaingaud, and had gradually extended to the face, arms, chest, breast, and abdomen, the lower limbs being unaffected. The tongue was thickened and very rigid, and its movements were greatly circumscribed. The face was entirely expressionless, and all movements of the affected parts were very difficult and incomplete. The skin had a board-like hardness; it was thickened as well as indurated, but presented none of the cicatricial spots usually met with in this disease. There was no atrophy, the affected parts having actually gained in volume and become more rounded; there was, however, nothing at all resembling œdema. The affected portions of the skin were slightly cyanosed, in consequence either of the impediment to the respiration offered by the rigidity of the thorax, or of a paralytic dilatation of the small cutaneous vessels. On the right arm, where the disease was most marked, the skin was very dry and parchment-like, and it was impossible to raise a fold or make a depression in it. When the finger-nail was drawn sharply across it, a white line was left, which did not become red until the following day. The eyeball could not be pressed back into the orbit, evidently in consequence of induration of the cellular tissue behind the ball. The optic papillæ were hyperæmic and the retinal veins dilated, but vision was emmetropic and accomodation normal. There was incomplete anæsthesia of all the affected parts, and particularly a very marked delay in the transmission of sensations. Even deep punctures in the arm were not felt until a quarter of an hour afterward; the pain then was less intense than it would be under normal conditions. Reflex movements were also retarded. The patient had a sensation of cold in the right arm, and the temperature there was 1° C. lower than in the left arm. She complained also of great sensitiveness to cold, but not of any decided pain. In the early stages of the disease she had suffered almost constantly from pruritus, which had been particularly severe at night.

From the favorable results of treatment in this case, Dr. Armaingaud believes he is justified in drawing the following conclusions:

First.—That electrization with continued currents is indicated in the treatment of scleroderma, and may be expected to give favorable results, if not in all forms and degrees of the malady, at least in the form characterized by thickening and induration of the skin without cicatricial patches or ulcerations.

Second.—That the electric current acts not only on the portions of the skin covered by the poles, but also, through the medium of the spinal cord, on the parts not electrified.

Third.—That the favorable action of the constant current, and especially the generalization of its effects through the medium of the spinal cord, furnish additional support to the theory which makes of scleroderma a *trophoneurosis*, that is to say, a trophic affection dependent on an alteration in the nervous centres.—*Archives Gén. de Méd.*, June.

Ligature of the Common Carotid for Dental Hemorrhage.—M. Hémard reports a case of ligature of the common carotid for hemorrhage following the extraction of a molar tooth. The usual remedies had been applied without success, and, with the consent of five of his confrères, M. Hémard performed the operation. The result was unsatisfactory, the hemorrhage not being controlled. The ligature came away on the twelfth day, after which ergot, and then sulphate of quinine were administered, and it was only after the exhibition of the latter drug, that the bleeding was checked. There was question here of the existence of the hemorrhagic diathesis, which would explain the difficulty encountered. M. Hémard preferred tying the common to the external carotid, on account of the difficulties presented by the latter operation. In the discussion which followed the presentation of this case to the *Société de Chirurgie*, M. Tillaux remarked that the operation was a very dangerous one, and should only be used as a last resort. He always preferred the actual cautery, and tamponing with charpie and perchloride of iron. The tampon should be kept in position by digital pressure, which should be maintained as long as possible, the friends of the patient being generally available for this purpose. With regard to the choice of the artery to be ligated, he thinks that, as the hemorrhage certainly comes from branches of the external carotid, that vessel should be selected. It is more difficult of access than the common carotid, but the dangers following the operation are less. M. Verneuil agreed with M. Tillaux in the choice of arteries, but he thinks that all these cases should first be treated with sulphate of quinine in doses of one or two grammes per day. He had seen dental hemorrhage in a medical student yield after the second gramme. There is question in these cases of the hemorrhagic diathesis, which demands internal treatment. M. Magitot advised the use of gutta-percha, which can be softened by heat and moulded into form, and the necessary pressure may be obtained against the superior maxillary. If the tooth cavity be first filled with chloroform, which dissolves the gutta-percha, the plug adheres intimately to the soft parts, and completely arrests the hemorrhage.—*Journal de Médecine et de Chirurgie*, June, 1879.

The Laryngoscope. It is recommended that a cloth moistened with glycerine be lightly passed over the laryngoscopic mirror before it is used. The water in the expired air is completely dissolved by the glycerine and many examinations can thus be made without any heating.—*Lancet*.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 23, 1879.

LITHOTRITY WITH EVACUATION OF THE FRAGMENTS.

II. THE OPERATION AND INSTRUMENTS.

THE instruments employed in this operation are a lithotrite, evacuating catheter, and washing-bottle. The lithotrite is introduced into the bladder, and employed during from ten to twenty minutes in catching and crushing the stone and its fragments. Then it is withdrawn, the evacuating catheter introduced, and all fragments small enough to pass through it washed out. This is repeated as often as may be necessary. It is seldom, if ever, desirable to use the lithotrite for more than fifteen minutes at a time. The work is done more expeditiously if the catheter is frequently employed to get the fragments out of the way, and the reason is a simple one, for the mass of small fragments, if not removed, protect the larger ones from being caught by the lithotrite. It frequently happens that, on the reintroduction of the lithotrite after washing, a large fragment is caught immediately, although only small ones were encountered at the end of the previous crushing. Bigelow makes use of longer intervals, and also of a much longer time to complete the operation than is usual with other operators; probably the two facts stand in the relation of cause and effect.

The lithotrite is handled in the usual manner; that is, the fragments are usually caught by depressing the floor of the bladder with the female jaw, so that they will roll down upon it, and then closing the male jaw upon them; or by opening the instrument widely, turning it upon its side, and sweeping the lower surface of the bladder from before backward with the male jaw. The washing is done by introducing the catheter, emptying the bladder more or less completely through it, and attaching the bulb, previously filled with warm water. Then, by alternately compressing and relaxing the bulb, the water is made to run into and out of the bladder, and the fragments which are brought out by the return current sink immediately into a glass receptacle at the bottom of the bulb. During this manœuvre the end of the catheter is kept pressed against the floor of the bladder, and its eye turned in different directions. As soon as the fragments cease to come in any considerable numbers, the catheter is withdrawn and the lithotrite reintroduced.

It is evident, in view of this prolonged use of the lithotrite, that its jaws must be so constructed that they will not become impacted by the fragments, a danger that is especially great when the stone is phosphatic. Even in the old operation this same need was felt, for an impaction sufficient to separate the jaws so far as to render the withdrawal of the instrument difficult can be produced by one or two crushings. Many devices have been proposed to meet the want; among them a successful one by Reliquet some four or five years ago. Reliquet cut lateral grooves sloping backward across the face of the male jaw, and corresponding fenestræ in the back of the female jaw through which the ridges separating the grooves of the male jaw could pass; he thus supplied two routes through which the detritus lodged between the jaws could be forced, one backward through the grooves, the other forward through the fenestræ. In Prof. Bigelow's instrument the same principle of lateral grooves is used, the difference being that in Reliquet's the grooves have parallel sides, while in Bigelow's they are triangular and larger. In each case they run from the left edge of the face of the jaw to the right side, and from the right edge to the left side alternately. There is no fenestra in the female jaw of Bigelow's instrument, and it works perfectly well without it. Another point requiring especial attention is that the danger of catching the mucous membrane of the bladder between the jaws shall be reduced as much as possible. With this object Bigelow rounds the edge of the rim of the female jaw, makes its depression shallow, and lengthens and broadens the heel.

Sir Henry Thompson uses two small non-fenestrated lithotrites, crushing two or three times with one, withdrawing it loaded with débris, and using the other while the first is being cleaned. Dr. Keyes uses a lithotrite with a fenestra occupying the entire floor of the female jaw, and with the shaft of the male blade so lengthened that its jaw can be driven through this fenestra so as to free it completely. Pinching of the bladder is prevented by making the male jaw at least a millimetre narrower and shorter than the fenestra.

It is not necessary to reduce a stone to powder; it is sufficient to break it up into fragments small enough to pass through the evacuating tube. Bigelow's and Keyes's lithotrites both do this, and apparently there is little choice between them, the objections urged by each against the others being either of trifling im-

portance or not borne out by experience. Keyes's is the simpler and lighter instrument.

One of the most valuable modifications of the lithotrite was made by Sir Henry Thompson in giving it the cylindrical handle which so greatly facilitates manipulation, and in the arrangement for locking the two blades and throwing the screw into gear by lateral catches moved by a flat button on the upper side of the handle. Prof. Bigelow has substituted for the latter device an arrangement consisting of a cylindrical catch at the end of the handle moved by a turn of the wrist. He attaches considerable importance to this modification on account of its alleged greater facility of manipulation; but, even if this claim is well founded, a serious objection to the modification exists in the liability of the instrument to break at this point where the reaction of the force exerted through the screw upon the stone is received. This objection is not a theoretical one, for one of Bigelow's instruments broke at this point upon its first trial, the cylindrical catch being torn bodily away from the end of the handle. Thompson's catch cannot be broken in this manner, and it is certainly easy enough of manipulation to make greater ease dearly purchased at the expense of strength.

Bigelow's evacuating tubes are perfect. He has two models, a straight and a curved, and various sizes; the largest, we believe, about 11 mm. in diameter, No. 34 of the French scale. As he so well says: "The best size for the tube is the largest the urethra will admit." The principal modification in the construction of these tubes is in the size, shape, and location of the eye, which is close to the end and large enough to admit the largest fragment that will pass through the rest of the tube.

His evacuating bottle consists of an oval rubber bulb with a sort of large, strong, glass test-tube at one end, and a rubber tube, a foot or more in length, at the other. When in use, the rubber tube is attached to the evacuating catheter, and the bulb is held upright with the glass below. It works admirably, and the only objections to it are that even with the best care it is practically impossible to prevent the admission of air into it and wetting of the bed when coupling it to the catheter, and that the fragments have to pass through a foot of tubing before reaching the bulb. The latter is a small matter, and the former would be readily overlooked if Thompson's bottle did not work so much more satisfactorily in this respect. As the connection with the interior of the bladder is made at the highest part of the bulb, any air contained within the tube or catheter is forced at the first contraction into the bladder, and is there churned up with the water in a manner that probably somewhat impedes the escape of the fragments, and certainly prevents satisfactory auscultation through the abdominal walls.

Thompson's washing-bottle has the form and the glass tube of Bigelow's, but it dispenses with the rubber tube, and is coupled directly to the catheter by means of a short brass tube provided with a stop-cock and entering the bulb at its lower end just above the glass tube. At the top of the bulb is another brass tube and stop-cock, through which the bulb can be conveniently filled with water. With this instrument the washing can be conducted with great facility while the patient lies in his bed, and without the escape of a drop of water while coupling. Any air that is present in it or the catheter rises at once to the top of the bulb, where it is entirely out of the way, and the fragments have to traverse only the length of the catheter and the short brass tube before falling into the glass receptacle. The rush of the water into and out of the bladder is so noiseless that the slightest click of a stone against the catheter can be heard, if the ear is placed upon the hypogastrium, and thus auscultation becomes a valuable adjunct of the searcher in determining the presence of a stone or any of its fragments.

ENGLISH MEDICAL STUDENTS AGAIN.

In our notice of the remarkable article in the *Fortnightly Review* upon the medical men of England, we stated that we had seen no denial of the statements of Mr. Gilbert. Our attention was soon called to an answer written by Mr. Robert Brudenell Carter, an oculist of London, for the *Contemporary Review*. We regret that we have not been able to sooner notice Mr. Carter's reply. Mr. Gilbert is unknown to probably nearly all of our readers, but Mr. Carter will be remembered by many American medical men who made his acquaintance when he visited this country in 1876, and was a member of the Medical Congress held in Philadelphia, and the ophthalmological in New York. Many others know him as an interesting and instructive author, who holds an excellent professional position in London. Mr. Carter has also, we believe, held a responsible position on the staff of the *Times*, and may therefore, on all accounts, be said to be a fitting person to reply to Mr. Gilbert. Mr. Carter makes short work of many of the assertions of the *Fortnightly*. He simply denies them: "Mr. Gilbert's assertions are not only grossly inaccurate, but they are destitute even of the shadow of a foundation." This is the way many of the statements are disposed of: "Of 2,441 medical students in London in 1878, only ten are known to have come under the notice of the police, and these for no grave misdemeanor." It will be remembered that Mr. Gilbert put the number at 400.

Mr. Gilbert seems to be as unknown to the professors in the English medical schools as he is to us, for Mr. Carter's inquiries fail to find that the authorities of the larger schools had ever heard of him. Mr. Gilbert is said to have sent a proof of his article to one surgical teacher, to have it returned with a strong

condemnation and denial of his statements. The denials of the *Contemporary* as to the statements regarding the attention of patients, are not quite so comprehensive as those in respect to the moral character of the medical students.

From our own very limited experience in London hospitals, and from our reading on the subject, we are inclined to think that a good deal of the work by the medical men nominally in charge is perfunctory,—a result, as we think, of the vicious system which obtains in England as well as here, of crowding hospitals and infirmaries with patients who, on account of ability to pay, have no business there. These patients so fill the hospitals that medical men, did they give them all the necessary time, could do no private practice. Besides, in London as in New York, some men have so many hospital appointments that they do not always do justice to all their public work.

Mr. Gilbert's criticisms upon the system that makes a score of little medical schools in London, where there should be one or two large and well-organized ones, like those of Vienna or Paris, remain, however, unanswered, simply because it is impossible to praise such a mode of dividing up the energies of medical teachers, that with an equal arena would always, as they now do at times, rank with any in the world. Hospitals should everywhere, each one of them, in our opinion, be made use of to teach medical students and practitioners; but to make each one of them a medical school, with all the necessary appointments, is not only to fritter away the money of the beneficiaries, but also to seriously impair the influence of men who should have the advantage of large classes, and whom large classes, instead of the beggarly two score or so of such medical schools as Charing Cross, should hear. The character of English medical students may be said to be fully vindicated by Mr Carter, if any vindication were needed; but the wisdom of the English system of medical instruction may still be doubted.

It remains a puzzle to us, that a respectable English journal like the *Fortnightly Review* could admit such false statements, and such incorrect statistics, as those of Mr. Gilbert's are proven to be. There seems to be some careless editing, even in the land that sometimes claims to furnish good taste for the civilized world. What with parliamentary obstructionists, the craze over disreputable but gifted actresses, and lying articles in respectable journals, we shall soon come to charge our English cousins with faults that they have sometimes attributed to us, and described as peculiar to our nationality.

British Medical Association.—We give our readers a special report of the proceedings of the British Medical Association, for the first two days of its annual meeting. A report of the remaining part of the meeting did not reach us in time for insertion in the present number.

Reviews and Notices of Books.

Lessons in Gynæcology. By William Goodell, AM., M.D., Professor of Clinical Gynæcology in the University of Pennsylvania; Fellow of the American Gynæcological Society; Corresponding Fellow of the Obstetrical Society of London, etc. With eighty illustrations. Philadelphia, Pa.: D. G. Brinton, 115 South Seventh Street. 1879.

This book, containing nearly 380 pages, is not a treatise upon diseases of women, but mainly the outcome of clinical and didactic lectures to advanced students. It consists of a series of twenty-nine lessons. In the first we are told what ordinary working tools the beginner in gynæcological practice should purchase and carry in his satchel. To the list which he has given we believe a catheter and a uterine probe might with advantage be added. It may be that he intends to use the aluminum wire applicators as probes. The remarks made in this lesson regarding the use of the uterine sound, the propriety of having a female attendant in one's office, and keeping full notes of office cases, are valuable and practical.

In the second lesson the author introduces Diseases of the Urinary Apparatus, and first describes caruncle of the female urethra and its treatment. Removal by means of the actual cautery has proved most satisfactory to him, and it is a good method. If the thermo- or galvano-cautery is not at hand, a heated wire may be used.

The third lesson is consumed with Observations on Vesical Disorders of Women. In this lesson Dr. Goodell brings out a fact which, if more generally known, would save many suffering women from the annoyance of wearing a pessary. Pessaries are good in their place, but to employ them to support a physiological anteflexion is, to say the least, foreign to their designed use. Anteflexion, the author believes, is the natural condition of the womb in virginity and sterility, and we believe this is an established fact, although not so generally recognized as it should be. With reference to dilatation of the urethra for the cure of chronic cystitis, Dr. Goodell says: "Candor compels me to mention one objection to this operation, and that is the possibility of permanent incontinence following it." The general candor of the book is here manifested, and we might close our review with the statement that its author is a safe medical adviser, for in none of his own cases has incontinence followed the operation. There are men, unfortunately, who, with such an invariable success in any gynæcological procedure, would be dangerous authors, unless their writings were for some obscure medical journal with limited and rapidly decreasing circulation.

Fistulæ of the Female Genital Organs is the title of the fourth lesson, which embraces the uro-genital, the recto-vaginal, and the perineo-vaginal. These, says the author, are, in a vast majority of cases, due to the disuse or tardy use of the obstetric forceps. In this and the chapter following, the usual operative procedures are described, and, in addition, that of Closure of the Vulva for Incurable Vesico-vaginal Fistula. Practical suggestions are met with at various points, and the text is as interesting as a story.

In Lessons VI. and VII. we find a brief, sensible, advanced, and rational discussion of the Causes, the Prevention, and the Cure of Laceration of the Female Perineum. The ounce of prevention being worth a

pound of cure is the key-note to the value of these lessons. He advises the immediate operation without qualification, but disarms the reviewer by saying that he is well aware of the sharp criticism which such advice will receive by some very good authorities. An expression of honest opinion is entitled to candid consideration, and must stand or fall according as it is sustained by or succumbs under practical application. In speaking of the operation he recommends that the bowels be kept locked up. This is the established rule, and yet, of late, some good men have been operating with success by keeping the bowels soluble from the beginning.

Local and Constitutional Treatment of Chronic Metritis and Endometritis forms the title of Lesson VIII., which embraces some common-sense suggestions regarding local applications to the cervical and uterine mucous membranes. Yet here we meet with a startling statement, namely, that "no matter how severe or how mild the treatment of uterine disorders, the percentage of accidents will be about the same, and that a very low one." This statement may answer for cautious men, but it is hardly in keeping with the author's usually prudent recommendations. We do not believe that it is a safe proposition to be given even to "advanced medical students," and, were we of the female sex, we certainly should prefer to have our uterus inspected from another point of view. The statement in the same lesson, that "when girls or unmarried women exhibit symptoms of uterine trouble" all measures should be tried before resorting to digital examination or to local treatment, sounds very much like the old obstetric advice to talk about the moon, the man in the moon if needs be, the manufacture of cheese, the weather, etc., when the first entrance to the lying-in chamber is made. Sick women go to the physician to get cured, and he as a conscientious practitioner of medicine has no right to place patients on the pedestal of false modesty and shoot pills at them in the dark. It is his business to find out at the very earliest hour practicable what the matter is with his patient, and, if she is a sensible woman and is approached in the spirit of honesty and desire to relieve her of her physical ailment, she will lay no obstacle in his way.

In Lessons IX. and X. the author speaks of the Versions and the Flexions of the Womb, and advocates mechanical support by means of pessaries. It seems to us that he does not sufficiently qualify his statements regarding the use of the uterine repositor, and leaves the student to infer that it is an instrument which can be employed essentially without fear or favor. True, it is in keeping with the position already noticed, that the uterus can be dealt with harshly without exhibiting marked retaliation; but we hesitate before indorsing the recommendation.

In Lesson XI. we notice a practical rule regarding the Use of Tents for Dilating the Cervical Canal. The Intra-uterine Stem-pessary receives a *guarded* recommendation in Lesson XII., and in Lesson XIII. the author passes to the study of Pessaries and Abdominal Supporters. In Lessons XIV. and XV. he discusses at some length the Etiology of Prolapse of the Womb, and adopts Dr. Isaac E. Taylor's view with reference to prolapse from hypertrophic elongation of the supra-vaginal portion of the cervix, namely, that it is the supra-glandular portion of the cervix—the isthmus—which is drawn out from the corpus, and that at the expense of its thickness. These lessons present a worthy *résumé* of the views and the objections thereto entertained regarding the etiology of this very common affection.

Laceration of the Cervix Uteri is the title of Lesson XVI., and nowhere, either in speaking of the frequency of the lesion or the operative interference for its cure, has the author even mentioned the name of Emmet, who was the first to describe the lesion, devise an operation for its cure, and to bring its pathological significance prominently before the profession. In a home author, this omission is entirely inexcusable. The description of the lesion and the method of treatment are substantially those with which the profession is already familiar.

Cancer of the Womb and Vegetations of the Endometrium are the titles of Lessons XVII. and XVIII. Lesson XIX. is devoted to Polypus of the Womb; and the study of Fibroid Tumors of the Womb occupies Lessons XX. and XXI. Passing Lesson XXII., in which Spaying for Fibroid Tumor of the Womb and for other Disorders of Menstrual Life is considered, we come to Lesson XXIII., which is upon Ovarian Cyst, its Diagnosis, its Treatment by Tapping, by Injections of Iodine, and by Drainage. Ovariotomy by Abdominal and by Vaginal Section is pleasantly discussed in Lessons XXIV. and XXV., and then the author passes to the subject of Nerve-tire and Womb-ills in Lesson XXVI. which consists of his Address before the American Gynæcological Society at its Annual Meeting, held in Philadelphia, September, 1878. In Lesson XXVII. are given some practical and useful hints, both special and general, for the Prevention of Uterine Disorders. A subject is taken up in Lesson XXVIII. which, according to our recollection, has not been previously discussed in a medical book. It is the relation which faulty closet-accommodations bear to the diseases of women. We must congratulate the author upon the full, frank, and common-sense expressions which he has given us in this chapter, and we believe the practical benefit which would follow scrupulous attention to the advice therein given would amply reward every family in the world for obtaining a copy of the book. "Such closets as invite rather than repel, which give comfort and ready privacy to the evacuations of the body," will do much—very much—toward maintaining it in the greatest possible degree of health.

The book closes with a lesson on the sexual relations as causes of uterine disorders. The questions discussed are worthy of candid consideration, and the author has acquitted himself with grace.

The book, as a whole, is well published, and will be acceptable to the profession, notwithstanding the occasional taint of unqualified statements upon questions which, by general acknowledgment, are yet mooted.

Examination and Verification of Weights and Measures of Precision.—The College of Pharmacy of the City of New York has provided itself with special balances and standard sets of troy and decimal weights, to be used in the examination and verification of decimal, troy, or apothecaries', and all other kinds of weights. The college is ready to simply pronounce on the fact whether certain weights are correct or not, not to make incorrect weights correct. It is a matter of great importance that every dispensing pharmacist has weights which are correct. It is a notorious fact, and one of which pharmacists as well as physicians are aware, that many, if not most, of the cheaper weights sold in trade are unfit to be used as weights of precision by pharmacists or physicians.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Held in the City of Cork, Ireland, August 5th, 6th, 7th, and 8th, 1879.

(Special Report for THE MEDICAL RECORD.)

TUESDAY, AUGUST 5TH—FIRST DAY.

THE Association was called to order at 3 P.M. by DR. R. A. W. FALCONER, President, who was accompanied to the platform by DR. O'CONNOR, of Cork, the President-elect.

The minutes of the last meeting were read by the Secretary, MR. CROWKE, and approved.

DR. FALCONER then made brief reference to some of the more salient occurrences which had taken place in the Association during the past year, thanked its members for the kindness he had received during his year of office, and then introduced DR. O'CONNOR, the Senior Medical Professor of the Queen's College, and the President-elect of the Association.

HONORARY DEGREES IN MEDICINE.

DR. W. K. SULLIVAN, President of Queen's College, announced that the Senate of the Queen's University, Dublin, had conferred the honorary degree of M.D. on the outgoing and on the incoming Presidents.

RESOLUTION.

DR. WATERS offered the following resolution, accompanied by appropriate remarks:

Resolved, That the best thanks of the Association are due and are hereby given to Dr. R. A. W. Falconer, for the able and courteous manner in which he discharged the office of President during the past year.

DR. ALFRED CARPENTER, as President of the Council, seconded the resolution, and it was unanimously adopted amid great applause.

DISTINGUISHED FOREIGNERS PRESENT.

DR. CARPENTER then announced the following distinguished foreigners, who, although not members of the Association, would be its guests during the present meeting: Professor Charcot, Professor Ball, Dr. Gallard, Dr. Bonnafont, Dr. Sowerby, and Dr. Gueneau de Mussy, of Paris; Dr. Hirschberg, Dr. Weber Liel, and Dr. Madton, of Berlin; Dr. Giacinto Pacchiotti, of Turin; Dr. Coodes, of Geneva; Dr. Lewis A. Sayre, President of the American Medical Association; Dr. G. M. Beard, Dr. E. Seguin, and Dr. Gray, of New York; Dr. Hodgins, of St. Louis; Dr. Yandell, of Louisville, Ky.; Dr. Lawrence Turnbull and Dr. Da Costa, of Philadelphia, Pa.; and Dr. A. B. Palmer, of the University of Michigan.

The distinguished guests were received with applause.

PRESIDENT'S ADDRESS.

DR. D. C. O'CONNOR then delivered the annual address, of which the following is a brief abstract: He first referred in suitable terms to his deep sense of gratitude for the honor conferred upon him by the Association in making him its presiding officer. Following the example of some of his predecessors, he pointed out circumstances of interest associated with the locality of the meeting, and spoke of what Spencer calls the "beautiful citie," with its admirable sanitary appointments and its æsthetic surroundings, its hospitals and its monasteries, its freedom from taxes, its School of Design, and its Musical Academy. Leaving the physical aspect of the city in which the Association assembled, he remarked that a brief survey of the composition of the Association, the brilliant genius of many of its members, would lead to a feeling of disappointment that greater results had not followed, which would place medical doctrines on a firm, lasting basis, rendering them free from doubt or controversy.

For the practical man — the every-day working physician—there was presented the important duty of collecting facts from which the man of genius would derive general principles, and thus assist in bridging over the large space which divided physiology and pathology from practical medicine. To make a good syllogism, with physiology and pathology as major and minor premises, and the treatment of disease as the conclusion, it remained still the difficulty to remove the disease, and to that all our energies were directed. Theories founded on imperfect generalization could not be adopted in medicine with as little injury as in other sciences. It was of no consequence to the student of optics whether the modulatory theory of light was true or false, or to the astronomer whether the Copernican system was capable of mathematical demonstration; but it was of great moment to the physician as to whether alcohol was a food or merely a stimulant—whether it was entirely or in part, or not at all, consumed in the body—and still contradictory statements of that kind had been propounded for the last twenty years in succession, each professedly founded on experiments. In that instance, as in many others, error passed by a species of exosmose to the general public, who adopted the views more agreeable to the senses, believing alcohol to be indispensable for the cure of all diseases, and for sustaining bodily health and mental energy. Happily, the timely declaration of 260 of the most eminent London physicians—which might be printed in letters of gold—placed the question on its true basis, stating that "while unable to abandon the use of alcohol in *some* diseases, no medical practitioner should prescribe it without a sense of grave responsibility, and with as much care as any powerful drug."

This and several other instances showed that, although practical men, they should bow to the declarations of science, and they should hesitate before accepting unfinished generalizations, which a fresh experiment or a newly ascertained fact might destroy. Even deductions derived from experiments on animals to test the effects of medicines on the living organisms, though of great value, must be received with a certain amount of caution—justified by the fact that certain deadly poisons for man were nutritive food to some animals; that zymotic diseases were not intercommunicable between men and animals, or rarely so; and that even age and idiosyncrasies modified the effects of medicines, so as to make it uncertain as to what might be the effects of a given medicine in one case by seeing its effects in another. Thus it could be seen that in the deliberations in the meetings of the sections there was a place for the purely practical as well as the scientific man. Their views test and are tested by each other. Rationalism enlightened empiricism, and enlightened empiricism was a check—a drag-chain on hasty theorizing—from which medicine had suffered so much injury through its whole history.

Whatever differences there might be in the expression of our views about treatment, or whatever disputes about theories, when we met disease in a con-

crete form in a fellow-man appealing to us for help, minor distinctions disappeared, and we found we had been differing in words, not in substance, and as happened in cities, from frequent consultations, there was a levelling of extreme views, and an unwritten practice of medicine became established. The chaff was scattered to the winds, and solid truth remained. "*Opinionem commenta delet dies; natura judicia confirmat.*"

Whatever drawback the physician might feel on the pride and satisfaction which ought to attend the practice of his profession, there was none from the study of hygiene and the enforcement of its principles on governments, corporations, and the general public. Here he was the more than disinterested servant of humanity, elevated far above the ordinary pursuits of professional life.

The address closed with the hope that when returning to their homes, all would be endowed with renewed devotion to the advancement of our great profession and the welfare of its members.

ANNUAL REPORT.

Dr. Alfred Carpenter, President of the Council, read the annual report, which showed that the number of members admitted during the past year was 650; the number of deaths, 87; the number of resignations, 172; leaving the total number of members at 7,810.

The financial report showed a balance in favor of the Association of £768.

The report, together with the financial statement for the year ending December 31, 1878, was received, adopted, and ordered entered on the minutes.

The Association then adjourned, to meet on Wednesday, August 6th, at 11 A.M.

Wednesday, August 6th—Second Day.

The Association was called to order at 11 A.M. by the President, Dr. O'Connor.

The only lady member of the Association, Mrs. Garret Anderson, was in attendance.

Dr. Alfred Carpenter, President of the Council, announced the Committee of Council for the ensuing year, 1879–'80, as follows:

T. Clifford Allbutt, M.D., Leeds; J. T. Arlidge, M.D., Newcastle-under-Lyme; L. Borchardt, M.D., Manchester; J. B. Bradbury, M.D., Cambridge; G. W. Callender, Esq., F.R.S., London; B. Foster, M.D., Birmingham; E. Long Fox, M.D., Clifton; Arthur Jackson, Esq., Sheffield; C. E. Lyster, M.D., Liverpool; F. E. Manby, Esq., Wolverhampton; Frederick Mason, Esq., Bath; Edward Morris, M.D., Spalding; R. H. B. Nicholson, Esq., Hull; G. H. Philipson, M.D., Newcastle-on-Tyne; T. L. Rogers, M.D., Rainhill; E. H. Sieveking, M.D., London; Henry Stear, Esq., Saffron Walden; A. P. Steward, M.D., London; W. F. Wade, F.R.C.P., Birmingham; C. G. Wheelhouse, Esq., Leeds.

Dr. Carpenter then proposed that the annual meeting for the year 1880 be held at Cambridge, and that Professor Humphrey be appointed President.

The report and the proposition made by Dr. Carpenter were seconded by Dr. W. D. Husband, and then unanimously adopted.

ADDRESS ON MEDICINE.

Dr. Alfred Hudson, Regius Professor of Physic in the University of Dublin, then read an address on medicine, in which he reviewed the earlier history of medical progress, and dwelt at length on the work done by the celebrated physician Laennec. He alluded to the discovery of auscultation by Auenbrugger, and mentioned that the idea of the stethoscope was suggested to Laennec Gobsewing by some children playing in Paris—holding their ears at opposite ends of a beam of wood, and conveying from one to the other the sound produced by tapping on one end. Laennec was not slow in turning what he observed to practical account, and the result was the discovery of the stethoscope. He was afterwards enabled by means of this instrument to arrive at correct ideas with regard to the nature of the severest chest diseases, as well as disease of the heart. Dr. Hudson proceeded to describe in detail the views held by Laennec, and contrasted them with those of more modern observers, especially Niemeyer, whose views on pulmonary consumption were at variance with those of Laennec, and in which no one, however, could deny there was a great deal of truth. The address closed with a touching reference to the great loss recently sustained by the Association and by the profession in the death of Dr. Charles Murchison, whose life-work presented some analogies to that of Laennec. Like him, Murchison had left an imperishable memorial in his classical work on the continued fevers of Great Britain.

At the close of the address, Dr. Andrew Clarke said, whether he looked upon the plan of the address or the manner of its execution; whether he regarded the felicities of its language or its fertility of illustration; its philosophy or discriminative minuteness; its unpretending wisdom, and its most charming simplicity—he saw equal grounds for congratulating both the speaker and the Association, and offered the following resolution:

Resolved, "That the thanks of this Association are due and are hereby given to Dr. Hudson, for his able and interesting address on medicine."

The resolution was seconded by Dr. Ringrose Atkins, sustained by the President in complimentary remarks, and unanimously adopted by the Association.

PRESENTATION TO THE LIBRARY OF QUEEN'S COLLEGE.

Dr. T. Gallard, of Paris, presented to the Association a number of his works, which were subsequently presented to the library of Queen's College.

The Association then adjourned, to meet on Thursday, August 7th, at 11 A.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 25, 1879.

Dr. E. L. Keyes, President, in the Chair.

REPORT FROM THE MICROSCOPICAL COMMITTEE.

Dr. W. M. Carpenter presented the following report from the Microscopical Committee:

The larynx presented by Dr. Beverley Robinson, at a stated meeting held May 14, 1879, was found to contain the normal structures of the organ and a moderate infiltration of lymphoid cells. It did not contain miliary tubercles. The specimen of spina bifida presented by Dr. J. Lewis Smith, at the same stated meeting, was referred by the Committee to Dr. R. W. Amidon, who reported that it had decayed to

such an extent as to render microscopical examination impossible.

[Signed] W. M. Carpenter,
T. E. Satterthwaite.

PERFORATING ULCER OF THE ANTERIOR WALL OF THE STOMACH, NEAR THE PYLORUS.

Dr. F. V. White presented a perforating ulcer of the stomach, with the following history:

M. D., a female, aged twenty-five, native of Ireland; twenty years resident in this country; her occupation, hair-dresser; of healthy ancestry. She had excellent health to her thirteenth year, when she had intermittent fever. Her health was variable, being chlorotic to her sixteenth year, when her catamenia were established. Her appetite was peculiar since the fever, particularly desiring sweets, cloves, and black pepper, using the latter even in her tea. When she was eighteen years old she had an attack of peritonitis, I should infer from the history. She had periods of indigestion, particularly in the spring and fall; she had a very severe attack last summer. Her teeth commenced to decay in her fifteenth year; four years ago what remained of her teeth were extracted, and were replaced by an artificial set.

I was summoned to her January 16th last (her family physician was sick), about 7 o'clock A.M. I found her in a semi-recumbent position on her right side, anxious expression of countenance, pale, cold perspiration, gasping, catching respiration, complaining of excruciating pain about the region of the diaphragm reflected to the clavicles. She was almost pulseless. On examination of the chest, discovered nothing acute; on palpation of the abdomen, no tenderness.

On the day previous to her attack she attended the funeral of an intimate friend, but did not go to the grave; in the evening she took a bath, washing her hair, and drying it before the parlor grate-fire. I was also informed she was in unusually exuberant spirits that evening. About midnight she was taken with excruciating pain in the epigastric region, and vomited. As she had had attacks previously, and, after using domestic remedies, was relieved, the relatives were not very anxious. On inquiring as to the character of the vomiting, was told there was no blood; that she had never vomited blood in her previous attacks.

My diagnosis was diaphragmatic pleurisy, based upon the following facts: the very inclement weather, snowing and cold; her depression on account of the fatal illness of her friend; the indiscretion of the bath, and washing her hair and drying it before the open grate-fire, exposing herself to a draught that cold evening. My treatment consisted in means to relieve the collapse, vomiting, and pain.

On my visit about 10 A.M. I found her markedly improved, vomiting stopped, pain somewhat easier. Continued the treatment, with the request, if fever set in, to stop it.

On my visit, 2 P.M., found her in a lower collapse than on my first visit. On palpation of the abdomen, found tenderness in the lower portion of the abdomen. I remained with her about two hours, treating her case as indicated. Being called to an urgent case of threatened pneumonia, I left her in a more comfortable condition, about 4 P.M. On my return, about 5 P.M., I was told she suddenly died about 4½ o'clock.

My opinion was that acute pleurisy, attacking her in so vital a situation in her depressed condition, was the cause of her death.

After considerable persuasion, an autopsy was permitted, which was made about twenty-two hours after death.

On opening the abdominal cavity there was found general peritonitis, old and recent; there were old adhesions of the liver to the diaphragm; the posterior wall of the stomach was adherent to its surroundings; the stomach was found with an anterior perforation towards the pylorus; the usual contents and conditions, the result of the perforation, were found in the abdominal cavity.

The heart was normal; old pleuritic adhesions were found about the upper lobes of both lungs, especially the right; there was rather more than the usual fluid in the pleural cavity; no marked indication otherwise of pleurisy at the base of the lungs.

In the above history the following might be worthy of consideration: what effect the intermittent fever had, also the amenorrhœa in the causation of ulcers of the stomach.

An apology might be offered for my error in diagnosis by the obscurity surrounding these cases, as may be found without consulting further than the transactions of this Society, 1st vol., in the part devoted to perforating ulcers of the stomach."

(To be continued.)

Correspondence.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS.

REPLY TO DR. M. PUTNAM-JACOBI.

[To the Editor of The Medical Record.

Dear Sir:—Any one who criticises in print the remarks of another should, while doing it, give an accurate statement of those remarks, or, at least, of the evident purport of them. By none of my remarks, at a recent meeting * of the Pathological Society upon sudden pulmonary œdema, did I suggest that it was an accident which might occur *during* the operation of thoracentesis.

What I *did* say was as follows: "From the foregoing history and the morbid lesions revealed at the autopsy, I wish to draw an analogy between this case of ambulatory pneumonic consolidation with chronic pleurisy of the right lung, followed by very rapid and intense generalized œdema and congestion of the entire *left* lung, and resulting in a speedy death, and those instances of sudden œdema of a relatively healthy lung which occasion death *after* the operation of thoracentesis for large fluid effusions of the pleura." And, farther on, *I said* "that I presented the specimen chiefly because of its interest in one point of view: it enabled us to draw an analogy between the cases of sudden death *after* thoracentesis from pleurisy, and sudden death from œdema of healthy lung in a case of pneumonia."

Dr. Putnam-Jacobi, continuing her letter, writes: "It seems to me unnecessary to suggest *possible* causes for sudden death under these circumstances, when *the* cause is so obvious." In the first place, sudden œdema of a lung, after the operation of thoracentesis, is not a mere *possible* cause of sudden death. It is an actual

* See minutes of May 14th.

and efficient cause of sudden death; and to prove this, I can but refer my able interlocutor to *my* paper entitled "On Some Conditions, Physical and Rational, in Effusions of the Pleura, etc.," * where the following statements can be found: "In a case reported by Dr. Ernest Legendre (*Gaz. des Hôpitaux*, 1875), fifteen days after the beginning of an attack of acute pleurisy, thoracentesis was performed and about three litres of fluid withdrawn. In a very short time after the operation dyspnœa recurred, copious secretion into the air-passages took place, cyanosis appeared, and death resulted from asphyxia in a few moments. The asphyxic state was occasioned here, no doubt, by *rapid and overwhelming bronchial effusion*. . . . Mr. Tenneson (*Union Médicale*, Feb. 22, 1876) relates a very similar case to that of Legendre's, where dangerous asphyxia took place after twenty ounces of liquid had been removed. These facts are corroborated by others mentioned by Behier, Liouville, and Terrillon (*Thèse de Paris*, 1873), all of which prove that death *has occurred from the pulmonary congestion and œdema* induced by too rapidly and thoroughly evacuating the thoracic cavity."

The obvious cause, reached by somewhat intricate reasoning, Dr. Putnam-Jacobi presents to her readers in the following words, textually cited: "When the operation has freed the thorax from the effusion which may have held one of its sides motionless, and the chest-walls begin to expand, they draw not only on the compressed lung, but on the heart, tending by 'negative pressure' to arrest its action in diastole. This tendency is not resisted as effectively as in physiological conditions, because by morbid habit the physiological reserve of force in the excito-motor ganglia has been reduced. If the reduction has fallen below a certain minimum, or if the cardiac muscle is degenerated, or if the expansion of the liberated chest-walls be sudden, syncope, or diastolic arrest of the heart is almost inevitable. It is again only a question of degree whether such arrest shall prove permanent, *i. e.*, fatal."

For the solution of "*the obvious cause*" to be supplied with three successive "ifs," appears to me "*unnecessary*." Moreover, there is nothing at all new in the conclusion arrived at by Dr. Putnam-Jacobi, as will be remarked, not merely by a reference to a "case in the *Am. Jour. Med. Sciences* for April, 1879," but also by reading the following lines which are cited from *my own paper*, previously mentioned: "There is a numerous class of cases in which a suddenly fatal termination, probably due to *syncope*, has occurred. Such an one is that of Legroux, where the patient, on admission into the hospital, presented an immense effusion. The thoracic cavity was completely evacuated by the use of the aspirator, and three-fourths of an hour afterward the patient died. . . .

"Again, the mere pain of the puncture has been considered sufficient to arrest the heart-beats by reflex action. The case reported by Besnier is one in point. These lines are quoted from his article previously published.

Here the liquid was slowly withdrawn by a trocar No. 2, of Mathieu's apparatus, and with almost an excess of every precaution. But a few moments elapsed after the puncture, and only ten ounces of fluid had penetrated the receiving-bottle, when suddenly the patient became frightfully pale, and was found to be without movement and pulseless. . . . it soon became evident the woman was dead. In this and analogous instances I can only admit the sufficiency of the apparent "cause of death, where there is great failure of heart-power. This may exist, as we know, even though the heart is not in its exterior aspect seriously affected, or, at worst, is somewhat enlarged and flaccid. Such cases are frequently encountered in other depressing diseases, owing to loss of nerve-force generated in the *cardiac motor centres*, rather than to the lack of tonicity in the muscular fibres," etc., etc.

Yours respectfully,

BEVERLEY ROBINSON, M.D.

NEW YORK, August 11, 1879.

* THE MEDICAL RECORD, Feb. 3, 1877, p. 67.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—We have read the "Note on the Cause of Sudden Death during the Operation of Thoracentesis," by M. Putnam-Jacobi, M.D., in the RECORD of August 9, 1879, with much interest. It seems to us that the doctor has hit rather wide of the mark.

The effect of expanding the chest during inspiration is to create a partial vacuum in all its cavities. In the bronchial tubes and air-vesicles the air is rarefied. In the heart and blood-vessels the gaseous constituents of the blood, relieved of pressure, expand. The diminished pressure in the bronchi causes a rushing in of air from the outside through the larynx until the atmospheric pressure is brought to an equilibrium. In the heart this expansion of gases causes probably a slight increase in volume of the cardiac contents, and therefore a very slight increase of opposition to cardiac contraction, which lasts till all vacuum is filled by the rushing in of air (see above) and of blood (see below). The atmospheric pressure, acting on the veins outside of the chest, presses the blood in them forward to distend the intra-thoracic veins and the right cavities of the heart, in which a partial vacuum has been caused ("aspiratory force" so called). When we aspirate a chestful of fluid we cause, in the pleural cavity, a partial vacuum. This the outside atmospheric pressure seeks to fill by the air rushing in through the larynx into the collapsed lung, by pressing forward the blood from the peripheral veins into the venæ cavæ and right heart, and by pressing in the chest-wall. The chest-wall does *not* expand as a result of removing fluid *rapidly* by *aspiration* any more than it does as a result of removing fluid *slowly* by *absorption*. The two former processes are just what we have in normal respiration.

Suppose now that the aspiration is conducted too rapidly. The lung, long compressed by fluid and bound down by adhesions, expands imperfectly. The chest-wall is capable of collapsing only to a limited extent. The excess of the compensation falls obviously to the third factor. The venous blood is forced in great quantity into the right heart. Overdistention and paralysis of the right heart result. The patient suddenly expires.

This seems to us a sufficient and common-sense explanation of sudden death occurring during aspiration. It is hardly possible that the left heart has less work to do when one pleural cavity is filled with fluid. The right certainly has more, as it has to drive the greater bulk of the blood through a single lung, *i. e.*, it has to propel the same amount of blood as in health, but through a narrower channel. On the other

hand, the left heart has possibly to contend against torsion of the aorta caused by cardiac displacement by the fluid. The sound side of the chest compensates by increased exertion for its disabled companion. So it seems to us that, so long as the patient is not cyanotic, we have no reason to suppose that the "negative pressure" is any less in a patient afflicted with pleuritic effusion than in a sound chest. In other words, the heart *as a whole* has probably more work to do in a patient such as we are considering than in a sound man. If it gives out at a trying moment, it is the result of overwork, *not* of lazy and improvident habits formed by ganglion cells during a period of diminished activity and suddenly called upon for a reserve force which they have foolishly neglected to provide. Yours respectfully,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH STREET, Aug. 11, 1879.

CHOLERA IN JAPAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The cholera epidemic which has been raging for some time past in the southern provinces of this empire shows, by last accounts, but little signs of abatement.

The cities of Osaca and Hiogo are suffering most severely, the former reporting for June 4,174 cases and 3,115 deaths.

By a seven-days' detention system of quarantine, both by sea and land, the disease has been held back from the northern provinces and the capital up to date.

In addition to this, energetic sanitary measures are being adopted by all the municipalities of the northern towns in hopes of being able to retard, if not entirely escape, the scourge.

Two facts favor this possibility, viz.:

1. That a mountain range with only three passes separates this part of the country from the infected districts.

2. That a single line of steamers is the only regular means of communication between the cities referred to and this port and Tokio.

D. B. SIMMONS, M.D.,

Health Officer for the Japanese Government for the Ports of Yokohama and Tokio.

YOKOHAMA, JAPAN, July 15, 1879.

JAPANESE PAPER ICE-BAG.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The accompanying sample of *paper ice-bag* I regard not only as a curiosity in its way, but find it very useful. I have employed no other in my hospital for some year or two for applying ice as a therapeutic agent. It is good for several days' constant use, hence sufficiently long for any ordinary case in which it may be required, when its cheapness allows of its being thrown away. As far as I know it is a purely Japanese invention, and adds one more to the almost innumerable uses to which they put paper. I may say they also make water-beds, cushions, etc., in the same manner.

Respectfully yours,

D. B. SIMMONS, M.D.,

Surgeon to Kerr Hospital.

YOKOHAMA, JAPAN.

New Instruments.

A NEW FORM OF PNEUMATIC APPARATUS — OF CONTINUOUS ACTION AND GREAT PORTABILITY.

THE treatment of certain diseases of the respiratory and pulmonary organs with rarefied and condensed air has become firmly established. If it has not been resorted to as frequently as successes attained by it would appear to warrant, this is due partly to inefficiency of many apparatuses devised for the production of rarefied and condensed air, and partly to difficulty in their manipulation. The requirements which an apparatus for the purpose named should fill, are facility of manipulation and provision for the steady maintenance of about the desired degree of rarefaction or condensation.

Until recently the well-known Waldenburg's apparatus has filled these indications better than any other; yet the manipulation of its weights is very troublesome, and sufficient to deter many from its use. Besides, the objection is made against it that it consists of so many parts loosely united as to make it generally lacking in solidity.

To evade all these objections a new apparatus has been devised for the production of rarefied and condensed air, which fairly has the prospect of coming into general use. The annexed figure (1) illustrates it;

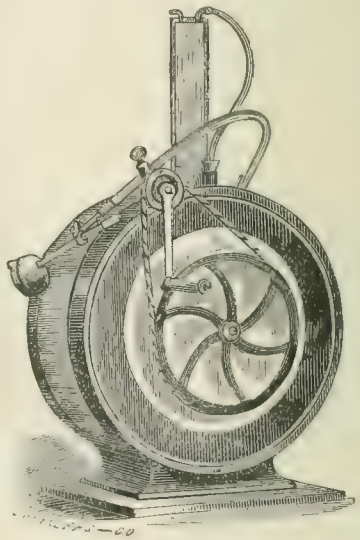


FIG. 1.

and one of its principal features, the crank, can readily be perceived, by the mere turning of which, rarefied or condensed air can be produced. The rudimentary ideas for the construction of this apparatus have been given by Professors Mayr and Geigel, of Würzburg, and their realization has been afforded by Dr. Hess.

The apparatus is constructed upon the principle of the "Bucket-wheel Blower" (Schöpfradgebläse), of which the diagrams, Figs. 2 and 3, will give an idea. M, Mr, M, is to illustrate an enclosure similar in shape to the glass covers over parlor clocks, made of strong sheet iron. This enclosure communicates with the outside air by the opening and outlet Mr, and contains perpendicularly the "bucket-wheel," shown in

the diagram by the double circle, divided into twelve equal parts. The horizontal axis of the bucket-wheel rests in the centre of the enclosure and projects on the outside, where a cog-wheel and crank can be applied, and the wheel thereby easily revolved. Axle, spokes, cog-wheel, and crank are not shown in the diagrams 2 and 3.

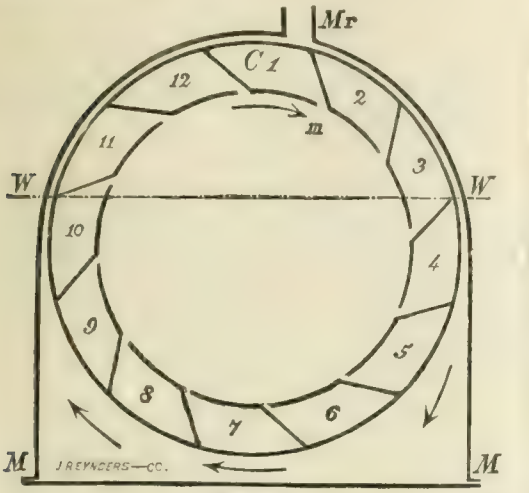


Fig. 2.

The bucket-wheel, which is also made of sheet iron, has on its inner concave side (towards the middle) empty buckets (Fig. 2, C 1, 2, 3, . . . 12), which, imagining that it were revolved to the right, have at their front surfaces, towards the middle, small slit-shaped openings, the opening on Z being near *m* on Figure 2. Through these openings each bucket communicates with the space within the enclosure. Now if the enclosure is filled through the opening Mr with water to the height of W W, and the bucket-wheel revolved to the right, the air-filled buckets 3, 2, 1, 12, etc., will descend below its level. The air contained in every one of these buckets will be somewhat compressed by the water entering as much as possible into the bucket openings, carried further by progressing rotation. The bucket-mouth is directed to the top, when the air will escape in the form of bubbles rising through the water. It can be readily understood from Fig. 2 that the escape of air from the buckets goes on while the buckets, during rotation, take the positions which the buckets 5, 6, 7, 8 are shown to have. In the same degree these buckets will be filled with water, which they carry until their mouths reach the position of bucket 11. Bucket 2 will already be filled entirely with air, and when reaching the position of bucket 3, this entire process repeats itself.

Suppose, now, that a bell is inserted inside of the bucket-wheel, resting in the flat, cylindrical enclosure. This bell has two openings, a wider, lower one (G G, in Fig. 3), reaching considerably under the water level, and an upper, narrow one, passing through the enclosure, and thereby in communication with the outside air. Self-evidently the upper part of the bell, its outlet, must be of such a form that the bucket-wheel can be rotated without obstruction and without interfering with space within the bell.

It can be readily seen that the lower margin of the bell is well over the lowermost situated buckets. If the bucket-wheel is turned to the right, the buckets filled with air, 3, 2, 1, etc., will pass the lower mouth of the bell, G G, and allow the air to escape, which will then enter the bell. By closing the upper opening Gr the air will accumulate more and more in the bell space; thereby the level of the water in the bell-space is lowered, and is raised in the enclosure by the water passing through the opening, G G.

In this manner the increasing quantity of air in the bell-space will gradually assume its water level down

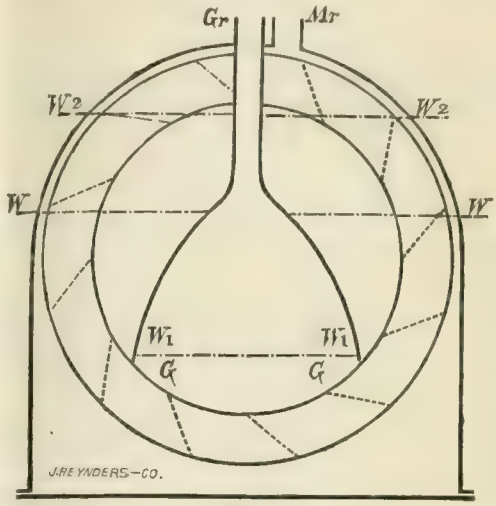


Fig. 3.

to W_1 W_1, while at the same time the water level in the enclosure will rise to W_2 W_2.

The difference between these two water levels indicates the atmospheric pressure bearing upon the air in the bell space, or the degree of tension produced by a water column whose height is equal to it.

Upon opening the outlet Gr, the air will rush out. However, as a sufficient velocity of rotation of the bucket-wheel will constantly supply the bell-space with as much air as escapes, the amount of atmospheric pressure in the bell, even when its opening is not closed, can be steadily maintained to any degree desired.

(1). In this condition the apparatus is arranged for inhalation of condensed air; the rotating of the crank causes accumulation or condensation of air in the bell space, which may be conducted into the lungs through a tube, Gr, ending in a mask.

If, on the other hand, the opening of the enclosure Mr is closed, while the opening of the bell-space Gr remains open, and the bucket-wheel rotated in the same direction as before, air will be drawn from the enclosure and brought into the bell-space. This will produce rarefaction of air in the enclosure, following which the water level will rise in the enclosure while it sinks in the bell-space. As in case of condensation of air in the bell-space, the rarefaction in the enclosure increases in proportion to difference in height of the water levels. After opening Mr, the rarefaction may be constantly maintained if the velocity of rotation of the bucket-wheel, or the transport of air out of the enclosure, is analogous to the quantity of air entering through Mr.

(2). In this condition the apparatus is adapted for exhaling into the enclosure, by connecting it with the lungs by the mask, tubing, and outlet Mr. From this elementary description of the apparatus one can conclude that its mechanical productiveness or efficiency is dependent upon its size.

The apparatus is provided with an improved man-

ometer, registering by red-colored water, which is more readily visible and more sensitive than mercury. Masks and stopcocks are of an improved pattern on the Waldenburg apparatus.

The latter and above described new form of pneumatic apparatus are manufactured by Messrs. J. Reynders & Co., of No. 303 Fourth Avenue, New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 10 to August 16, 1879.

FORWOOD, W. H., Major and Surgeon, McPherson Barracks, Atlanta, Ga. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 128, Dept. of South, August 13, 1879.

HORTON, S. M., Major and Surgeon. Granted leave of absence for two months. S. O. 42, Div. of the Atlantic, August 12, 1879.

GIRARD, J. B., Capt. and Asst. Surgeon, Ft. Davis, Texas. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave limits of the Department. S. O. 168, Dept. of Texas, August 8, 1879.

KIMBALL, J. C., Capt. and Asst. Surgeon. Granted leave of absence for fifteen days. S. O. 40, Div. of the Atlantic, August 9, 1879.

MOFFATT, P., Capt. and Asst. Surgeon. Assigned to duty at the new post in the vicinity of Lake Chelan, W. T., to which post he will proceed at end of current month. S. O. 96, Dept. of the Columbia, July 28, 1879.

BANISTER, J. M., 1st Lieutenant and Asst. Surgeon. Having reported in person, ordered to report to C. O., Ft. Leavenworth, Kans., for temporary duty. S. O. 151, Dept. of the Missouri, August 7, 1879.

CARTER, W. F., 1st Lieut. and Asst. Surgeon, now at San Antonio, Texas. To proceed to Ft. Conclo, Texas, and report to the C. O., District of the Pecos, for duty in that District. S. O. 164, Dept. of Texas, August 4, 1879.

FITZGERALD, J. A., Capt. and Asst. Surgeon, died at Columbia, Pa., August 11, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 16, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 9, 1879.	0	7	40	2	25	17	1	0
Aug. 16, 1879.	10	18	37	4	28	14	5	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from Aug. 13th to 18th inclusive was 158, and the number of deaths that occurred was 52. The total number of cases for this year to Aug. 19th is 575, and the total number of deaths 158.

During the past week two new cases have been sent to the Quarantine Hospital in this port [New York].

MEDICAL DEPARTMENT OF YALE COLLEGE.—In accordance with a long-cherished plan, the Medical Department of Yale College announces a graded course of instruction extending over three years. Preliminary examinations are required for admission, except from those who present a degree in Letters or Science, or have passed an examination for admission to Yale College or some similar institution, and are conducted in writing. Examinations, chiefly in writing, will be held at the end of each year to determine the standing of students with reference to their advancement to the studies of the succeeding year.

AMPHORIC RESPIRATION.—Dr. M. L. James, President of the Richmond Academy of Medicine, expresses the opinion that adhesion of the pleural surface of a cavity with the chest-wall is the usual condition by which amphoric respiration is produced. Authorities recognize the existence of a large cavity with firm walls as the occasion of amphoric respiration; but he has nowhere seen any reference to pleural adhesions as the particular condition by which those walls are made thus firm.—*Southern Clinic.*

THE ARMY MEDICAL SERVICE of Great Britain appears to be in a very unsatisfactory condition. During a debate on the subject at a recent session of Parliament it was acknowledged that there were more vacancies than applicants for positions in the service, and that it was indeed the only branch of the public service in which such a state of affairs existed. Physicians do not care to become army surgeons. Such a state of affairs is remarkably different from that in our own country.

THE EFFECT OF SMOKING UPON THE TEETH.—In a paper read by Mr. Hepburn before the Odontological Society of Great Britain it was claimed that smoking was beneficial to the teeth. The alkalinity of the smoke neutralizes any acid secretion there may be in the mouth, and the antiseptic property of the nicotine tends to arrest any putrefactive change in carious cavities. Tobacco will only discolor teeth when there is a crack in or loss of the enamel.—*British Medical Journal.*

BOOKS RECEIVED.

PHYSIOLOGICAL THERAPEUTICS: a New Theory, by Thomas W. Poole, M.D., M.C.P.S. Ontario, Toronto: The Toronto News Company.

L'ANNÉE MÉDICALE, 1878. Le Dr. Bourneville, Rédacteur-en-Chef du Progrès Médical, 6 Rue des Écoles, Paris, France. E. Plon et Cie., Imprimeurs-Éditeurs, Rue Garancière, 10. 1879.

BIBLIOTHECA DERMATOLOGICA, by Henry G. Piffard, M.D., Prof. Dermatology, University of the City of New York. New York: Bradstreet Press, 279 Broadway. 1879.

THIRTY-SIXTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y., for the year 1878. Albany: Charles Van Benthuysen & Sons. 1879.

MANUALS OF HEALTH. On Health and Occupation, by B. W. Richardson, M.D., F.R.S., etc. New York: Pott, Young & Co., Cooper Union. 1879.

THE SUMMER AND ITS DISEASES [Health Primer], by James C. Wilson, M.D. Philadelphia: Lindsay & Blakiston. 1879.

Original Lectures.

VAGINO-CERVIPLASTY;

Or, Shortening of the Cervix Uteri by Tissue-Sliding.

A LECTURE DELIVERED

By MONTROSE A. PALLEN, A.M., M.D.,

PROFESSOR OF GYNÆCOLOGY AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK, APRIL 24, 1879.

(Reported for The Medical Record.)

Gentlemen:—By reference to the *Records of the Clinique* for April 3d, we read about the patient presented to you to-day, as follows:

"*Mrs. Cummings; married; ætat.* 26; *Ireland.* She has always menstruated regularly, and has no pain, except on the first day. No menorrhagia, no leucorrhœa; nor is there any bladder or rectal trouble. The pelvic contents are remarkably free from inflammatory products, if we are to judge from her subjective history. She has been married three years, but has borne no children, and she comes here to discover if there is any cause and remedy for her dyspareunia and sterility.

"*Digital examination* reveals the cervix uteri very much elongated and flattened from before backward. *Conjoined manipulation* develops a well-defined anteflexion of the cervix, and a moderate degree of corporeal ante-curvature likewise, evidently produced by pressure of the superincumbent viscera.

"By means of the *speculum investigation*, actual measurement of the intra-vaginal cervix displays a length of 1¾ inches posteriorly, and 1½ inches anteriorly. The *sound* penetrates to the fundus uteri, and marks 2⅝ inches of depth.

"*Diagnosis.*—Prof. Pallen regards this condition as one of normal uterine development as to length, both in body and neck, but defines the lesion to be an *apparent (not real) elongation of the neck of the womb, in consequence of faulty implantation of the vagina.*

"*Treatment.*—Surgical procedure is advised, whereby the neck of the womb can be relatively shortened by sliding the vaginal mucous membrane downward, and lifting the neck into an artificial sheath.

"*April 10th.*—Patient was placed under ether and brought into the amphitheatre. Vagino-cerviplasty was made by stripping the upper portion of the mucous membrane from the circumference of the cervix to the width of about six-sevenths of an inch anteriorly and five-sevenths posteriorly, together with a dissection of the mucous membrane above, from around the junction of the body and neck, without ablating it. The neck was then slid into the new socket or sheath thus made, and the margins united by nine silk sutures. There was considerable hemorrhage, as a good-sized artery (possibly the abnormally distributed circular) was severed in the denudation. The bleeding was, however, checked by torsion at either extremity of the vessel. Prof. Pallen's modification of the Sims speculum was used, because it gave greater space."

After the operation the patient was removed to her home in a carriage, and Drs. Van Ramdohr and Norris watched her carefully. It is useless to follow the daily history of the case, inasmuch as the wound made a speedy union, and again our patient presents herself fourteen days from the date of the operation. A speculum examination reveals the cervix uteri lifted from its former resting-place upon the perineum, and its flattened appearance is gone. The anteflexure of the body is likewise less, because the uterus is no longer squeezed between the abdominal contents above and the perineum below. The sound penetrates with less bending, and marks a depth of 2½ inches. The sexual organs are nearly normal as far as place is concerned, and we can safely anticipate a painless, and possibly a fruitful coition in the future. With such a cervix as this patient had prior to the operation, almost protruding from the vulva, conception was not to be considered, nor did she ever submit to the marital congress except to frequently feel distress, which occasionally amounted to actual pain.

This is the fifth case of the kind upon which I have operated. The first three operations were reported to the *Obstetrical Society* in October, 1874, and subsequently published in the *Journal of Obstetrics*, February, 1875. The fourth case was operated upon in February, 1878. Without entering into the histories of these cases, let me call your attention to certain facts in embryology, and the much-neglected study of teratology, viz., the science and philosophy of monstrosities. This preliminary study of embryological and teratological facts will give you an idea why this operation was conceived, and you will be pleased to learn how much every department of surgery and applied pathology can be more than substantially benefited by a careful exploration of the development and growth of organs.

An arrest of embryonic development, a fixation or stoppage of a perfectly normal transitory state, or a failure and arrest of the second pubertic development, may and does result in a permanent anomaly materially affecting the future of the generative organs. If the converse of this take place, it is equally productive of harm, because an excessive developmental impetus results in increased growth, and determines an increase in one or more of the organs designed for copulation, generation, or parturition. If these propositions were not true, how then could we explain the presence of a double uterus and vagina, or a double vagina and single uterus, or the absence of a vagina with a rudimentary uterus and well-developed ovaries, and many other conditions indicative of arrested or excessive embryogenic impetus. No condition of embryogenic life persists after birth unless there has been arrest of some transitory state, as in this patient with apparent elongated cervix; she has grown to womanhood with certain arrested formative actions of the hollowing out of a membranous spur, given off from the Wolffian bodies, somewhere about the eighth or ninth week of gestation.

So positive are the interconnections, anatomical and physiological, of the vagina, bladder, rectum, uterus, oviducts and ovaries, that the harmony of their correlations cannot be disturbed without portentous trouble. Thus, too small a vagina, too large a bladder, too low a uterus, or too contracted a vulva, may develop dyspareunia (painful coition); an infantile uterus, or the persistence of prepubertic anteflexion, or too narrow a cervical canal may produce (and generally does) dysmenorrhœa; the conditions of dystocia or the causes of sterility are likewise frequently traceable to arrested embryogenic development, or may be induced by infantile and prepubertic pathogenesis. However interesting these points may be, I must, for the present, defer their elaboration to a consideration of the development and functions of the vagina, as well as its abnormal implantations, in order to explain upon what exact grounds vagino-cerviplasty was performed on Mrs. Cummings, and

why I deemed the operation feasible long before I had experience enough to sustain these preconceived ideas. Now let us study the structure and objects of the vagina. In the embryo, the vagina is an organ of mixed formation, intermediate in function and position, and is produced by the cleavage or hollowing out of a membranous spur—a true cloacal septum—between the bladder and rectum. This process occurs about eight weeks after conception, when the uterine and vaginal cavities are one and continuous. About the fifth month these two organs are materially distinct, and, if no arrest of development has taken place, or no increased formative action been manifested, the implantation of the vagina upon the cervix (what is known as "histological fusion") will be of that character denominated healthy or normal, so that when the girl reaches puberty, the angulation at the junction of cervix and vagina will be about 155°, and the correlations of place perfectly symmetrical.

In the perfect woman, the vagina is fused normally to the cervix higher upon the posterior than upon the anterior surfaces. Posteriorly it is reflected upon itself, and its upper or pelvic extremity is convex and in juxtaposition with that fold of the peritoneum known as Douglas's pouch. Anteriorly, but on a lower plane, it is attached to the cervix behind and to the bladder in front, and sends processes or duplicatures in a horizontal direction, without dipping or folding upon itself, as in the posterior fornix. In totality, the vagina is an inverted cone, with a greater amount of ballooning posteriorly than anteriorly. The sustentative functions of the vagina depend upon its surrounding connective tissue, as well as its attachments to the pelvic fasciæ from and around the bladder (the pubo-vesico-uterine ligaments of Hyrtl), and the dissepiments and processes of musculo-serous tissue attached to the sacro-lumbar ligaments. When no increase, either of vascular, muscular, or connective tissue takes place, the *vagino-cervical fusions are mutually sustentative and supporting, and it is only when the correlation of place and order is destroyed by pathogenetic causes that we are called upon to treat post-pubertic lesions and congenital or teratological abnormities.*

Normally, the intravaginal portion of the cervix uteri in the average-sized nulliparous woman has a dip of about half an inch, and in parous women somewhat less, but with a corresponding increase in length in the supravaginal portion, the isthmus, and the fundus. The depth from the os externum to the fundus of the nulliparous woman during the intermenstrual period is a fraction over two and a half inches, and something less than three inches in mothers. Any marked increase beyond these measurements is indicative of hypertrophic elongation of the cervix, subinvolution of the entire organ, the presence of a neoplasm or hyperplastic formations. In the patient before us, the persistence of the normal measurements in totality, notwithstanding an excessive elongation of the intravaginal cervix, indicated a faulty implantation of the vagina, and not a hypertrophic elongation of the cervix. The treatment of such a case prior to 1870, consisted in ablation, either by the knife, the écraseur, or the galvano-cautery, of half or three-quarters of an inch of the elongated neck. *Such amputations I deem to be mutilations, when the entire length of the cervical and corporeal cavities do not exceed three inches.* Amputations of the neck of the uterus, particularly by the écraseur, are fraught with great danger, and quite a number have been recorded where the peritoneal cavity has been opened. Mark you, I do not advise you never to amputate the neck of the uterus, but not to amputate such cases as this presented to you to-day.

There is another anomaly of defective cervico-vaginal dimension, the very converse of the subject under consideration, and it consists of an implantation or fusion of the vagina too low down upon the cervix, giving it an intravaginal dip of hardly more than the sixth of an inch. I would not call this an "infantile neck," as it is described in the books, because the *true* infantile neck is relatively greater in size and development than is the uterine body. For this condition no method of treatment has as yet been devised; possibly a plastic sliding of the vagina upward, the converse of what you saw me do in vagino-cerviplasty, may be successfully made, whereby the superior edges of the circumsection may be "hemmed" down to the cervical tissue proper, and the intervening spaces filled up with granulations. Vagino-cerviplasty is applicable to those cases *where*

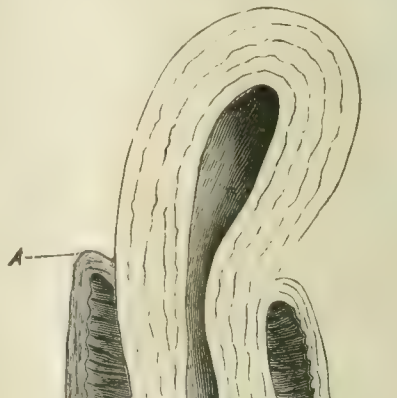


FIG. 1.—A. Abnormal implantation of the vagina producing intravaginal elongation of the cervix. B. Normal vaginal implantation. This figure is given as illustrative of the mechanism of the lesion under consideration by comparison of the two conditions.

the longitudinal diameter of the utero-cervical cavity does not exceed three inches, but where the intravaginal portion of the cervix is so long as to interfere with either locomotion, sitting, coition, menstruation, or conception.

The most remarkable instance of excessive infravaginal elongation is reported by Martine (of Biberach), where the posterior fornix was attached to the fundus of the uterus. Ordinarily in this anomaly the fusion takes place on a level with the isthmus, about three-fourths of an inch too high, but not sufficiently high to invade the retro-uterine pouch (Douglas's cul-de-sac).

In performing the operation for vagino-cerviplasty, we must be careful to make our dissection to avoid a possible invasion of this peritoneal pouch, and for that reason the upper margin of denudation is sloped lower on the posterior wall of the cervix than on the anterior; and the inferior margin is likewise stripped lower on the posterior than on the anterior surface. This latter stripping is done for the purpose of equalizing the strain upon the stitches, so that when the

wound is drawn together it looks like a ring around the cervix pushed higher on the anterior than on the posterior wall.

To recapitulate: vagino-cerviplasty consists in a circumsection of the mucous membrane by means of a bistoury, with its cutting edge at right angles to the shank, and stripping it from the cervix to a point about three lines from its distal extremity anteriorly,

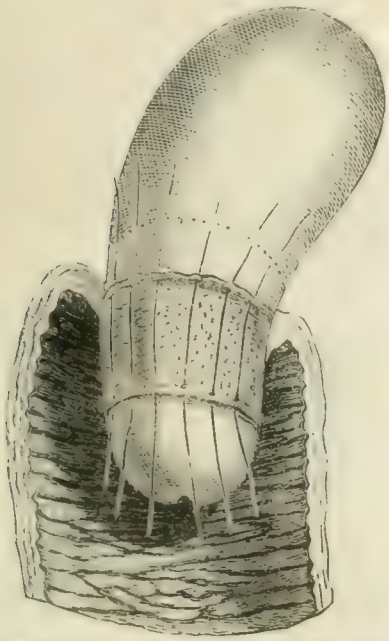


FIG. 2.—Showing the line of separation above the stripped cervical mucous membrane, and the position of the silver sutures before the sliding is perfected.

a little more than three lines posteriorly, and carrying the dissection upward for about an inch anteriorly, less than an inch posteriorly. This leaves nearly the whole of the vaginal portion denuded of its mucous covering. Ordinarily the hemorrhage is but slight, as no vessels of any magnitude are normally encountered.

The next step of the operation should not be commenced until all bleeding has ceased, as it is of the utmost importance to see each section of the submucous connective tissue. The first incision is made with scissors curved on the flat, cutting with the concavity toward the cervical tissue; when a separation is made, a tenaculum is hooked into the mucous membrane, and the dissection is carried halfway around the cervix; the tenaculum is handed to an assistant, and another inserted into the undenuded mucous membrane, where the stripping was first commenced, and a similar separation is made on the opposite side until the first is met.

The depth of these incisions of separation varies from three to eight lines, according to the greater or less length of the cervix. Should a vessel of any magnitude be divided (as it was in this case), it must be torsioned or ligated at either orifice, for reasons well understood. Usually the bleeding has been controlled by sponging with cold alum-water. The silver wire (or carbolized-thymolized-silk suture) is then passed from above downward, from without inward on the upper flap, and from within outward on the lower flap. All sutures are inserted by means of the "fish-hook" needle, trocar-pointed.* In my first operation I used very short, straight needles, half an inch in length, but they were not so conveniently passed as the fish-hook needles since used in all operations about the cervix uteri, or in either fornix of the vagina. When the sutures are all adjusted, three in front and four behind, the parts are drawn together, and the apparently elongated cervix is shortened by being covered by the reflected vagina; or, more accurately speaking, the cervix, deprived of its adherent mucous membrane, is drawn upward into the upper loosened sheath.

FIG. 3.—Showing the adjustment of the flaps, and the appearance of the neck after vagino-cerviplasty.

In all the five cases upon which I have operated, union has been complete and the sutures withdrawn on an average of about twelve days.

The treatment subsequent to vagino-cerviplasty consists in such cares as are rendered all patients after operative procedure upon the genital organs; such as horizontal posture, evacuation of the bladder (if necessary) every six hours, quiescence of the bowels, and sometimes the exhibition of opium.

Pelvic cellulitis, non-union of the wounds, inflammatory developments—in fact, any of the sequelæ of pelvic surgery might supervene after vagino-cerviplasty as well as after any other operation about these parts; but they are infinitely less probable than if amputation of the cervix had been made. You saw the *modus operandi*, and I have entered again into its detailed description, so that you may fully appreciate the *modus faciendi*. Now you may ask why such an apparently tedious and intricate surgical procedure was done in this case, and in what conditions of the sexual apparatus would you be warranted to attempt it?

The patient presented herself here simply because of her sterility. She had no aches nor pains, save

* For more than fourteen years I have used "trocar-pointed" needles of all shapes, ground very short, and if any one will make the trial, it will be found that they are vastly superior to all other needles.

during marital congress; then she always had dyspareunia. This pain at coition is readily understood, because the vagina was relatively shortened and the uterus actually lower in the pelvis. Every intromission of the male organ not only stretched the vagina, but likewise impinged upon the dragged uterus.

Her sterility was clearly mechanical, because it was entirely out of the question to presume that the semen could be ejected into the canal of a cervix which lay parallel to the male organ whenever this latter was in the vagina. Ejaculation of the spermatozoa took place behind and above the cervix, high up in the posterior vaginal fornix; and unless the germinating fluid is thrown directly into the canal of the cervix, conception will not take place, however much the book-making physiologists may say to the contrary. If it were not intended for the semen to be propelled or thrown into the uterus, of what use are the ejaculator muscles? If the spermatozoa possess the so-called elective power of *crawling* down the cervix, over its inferior margin, into the canal, thence up into the uterus to hunt up the ovum, and there to embrace it, as an anaconda winds around its unsuspecting prey, why should the mechanics of erectility and motility be so superbly illustrated as in the central fixation of the uterus in the pelvis pending the loading of the venous trabeculæ around the whole generative tract? Nature nowhere adapts ends without physical means. Conception never takes place unless the male germinating fluid encounters the female ovum in such a place where the placental tufts may thrive and grow. Never does the semen seek these spots unless it has been implanted there; it does not permeate the organism like a secretion!

Now this operation of vagino-cerviplasty was made for the purpose of allowing the implantation of the seminal fluid in the proper place. I have lengthened the vagina by relatively shortening the neck. The strain has been removed—that of dragging from below, as well as of pressure from above. If fruition should ensue, clearly it will be another fact illustrative of purely physical conditions, an establishment of the correlation of order and place, as productive of results hitherto regarded as a species of mysticism. The correction of defective physical relationships in the overcoming of sterility is worthy of the profoundest study, and numerous surgical procedures may be cited as evidence, and none more so than the plastic sliding of the vaginal mucous membrane in apparent elongation of the cervix.

NOTE.—July 14th.—This patient was exhibited to the New York Obstetrical Society in June. Then, as now, the result of the operation was most apparent. She was last seen on July 3d, and was free from dyspareunia. Her menstruation was due on July 6th, but she has not since reported.

The cervix uteri is not more than three-fourths of an inch in length, and is quite two inches from the vulvar orifice. The ante-curvature of the body of the uterus had very much diminished.

THE EXPECTANT TREATMENT OF CHOREA.—At the Radcliffe Infirmary, Oxford, a case of chorea was recently treated without medicine. The patient, a boy of ten, was placed in a well-padded crib and supplied with the most nutritious food. The symptoms were severe, and for ten days slightly increased in violence. On the tenth day a remarkable subsidence of the choreic movements took place, and from this time the child steadily improved. By the end of the tenth week from the beginning of the attack he was completely well. It is a curious fact that the duration of the disease thus left to itself was the same as that estimated by Hillier and See as the average duration under all kinds of medical treatment.—*Lancet*, July 5, 1879.

Original Communications.

CONTRIBUTIONS TO ORTHOPÆDIC SURGERY.

BY CHAS. F. STILLMAN, M.D.,

PLAINFIELD, N. J. (CURATOR TO ST. FRANCIS'S HOSPITAL, N. Y.).

AT a time when appliances for the relief of Pott's disease are becoming as varied as at present, and when it is desirable in so many instances to employ extension and expose diseased surface, I should fail in my duty to my profession did I refrain from drawing attention to a splint for these purposes, which is proving itself in my hands, and in the hands of many surgeons throughout the country, of the utmost service in producing these results.

In January, 1878, the writer originated the idea of using an apparatus embodying extension and fixation for Pott's disease of the spine, and in February, 1878, incorporated an article upon the subject in a pamphlet published by Geo. Tiemann & Co., of New York. I produced extension by means of a compound bracket, consisting of two overriding, slotted strips, connecting two terminal zinc perforated plates, imbedded in plaster-of-Paris above and below the seat of disease—and, so far as I have learned up to the present time, was the first to apply the apparatus. I soon found the plan impracticable, however, except in the first stages of disease, because the unequal lengthening or shortening of the extension strips would alter the position of the plaster-of-Paris attachment to the body, thus causing discomfort to

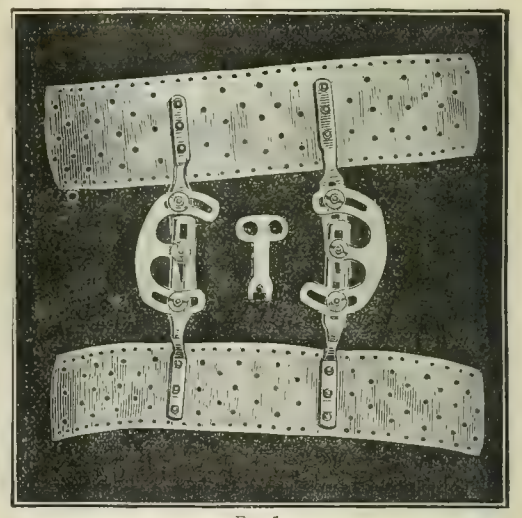


FIG. 1.

the patient. Pursuing my investigations, I have since found that keeping the extension-strips at right angles to the attachment, however great the deformity, by the addition of a modification of my slotted steel sector to each (see Fig. 1), and the use of an original combination, immovable dressing of adhesive plaster and plaster-of-Paris, starch, etc., enables the surgeon to obtain the fixation, extension, exposure, and gradual reduction of deformity which are the requisites of mechanical treatment, without disturbing the attachment to the body, or causing discomfort to the wearer

by its impingement upon one point of the surface more than another. The weight of the bracket is from six to ten ounces, the bridges and sectors of which are made from very strong and light crucible steel, so tempered at the incline that they may be bent to any angle with the terminal plates, which are made of thin, flexible copper, to enable close adjustment to the body; the whole being nickel-plated, to avoid rust (see Fig. 1).

APPLICATION.

Stand or seat the patient erectly, and apply strips of canton-flannel (or moleskin) adhesive plaster vertically around the entire waist, above and below the seat of disease, one-eighth to one-half inch being left uncovered between the strips. Next, encircle the two divisions of the waist transversely with long strips of the same material. We have now a strong adhesive-plaster base on the body to which to fasten the bracket. Next, sew two strips of the adhesive plaster, of sufficient length to more than encircle the body, to the terminal plates, as shown in Fig. 4, and bend the plates to conform accurately to the surface of the body.

After adjusting the bracket, with its bridge shortened as much as possible, and its clamps loosened, fasten it securely and tightly to the body by means of the adhesive plaster. Firmness and fixation are now given to the splint by rollers of starch or plaster-of-Paris bandage wound tightly over the whole, these uniting with the nap which covers the outside of the adhesive plaster, to form one immovable splint, which is firmly fastened to the skin over a large extent of surface, and yet conforms so accurately and immovably to the convexities of the pelvis and chest, that no amount of extension we may deem it necessary to employ can cause its displacement, if the sector be employed.

This combination of adhesive plaster and starch, plaster-of-Paris, silicate, or other immovable bandage, makes a much lighter attachment than plaster-of-Paris alone, adjusts itself to the body more accurately, and does not suffer the same amount of expansion and consequent loosening, while retaining the good qualities of firmness and fixation. (In several cases lately where I have thought it advisable to apply Sayre's plaster jacket, I have used this combination instead of the plaster alone, and in every case with congratulatory results.) A great advantage of this splint is the avoidance of any suspension apparatus during its application, and, consequently, the avoidance of cramped and painful positions; there being no necessity for undue haste, the clamps not being tightened necessarily until after the completion of the application.

This splint possesses all the advantages of the plaster jacket; but, in addition, we are enabled to straighten a patient while still keeping up extension, thus tending to keep weight off the diseased part, separating the opposed diseased surfaces, exposing the external surface for application and elastic compression, and fulfilling generally all the mechanical conditions necessary for the relief of vertebral disease. It is provided with a clamp-key, so that it can only be manipulated by the person in charge. The brace shown in Figs. 1 and 2 was used successfully in a case of Pott's disease in which the lateral curvature was a prominent feature. For posterior curvature the sector and slotted strips are placed antero-posteriorly.

HIP-JOINT.

Two objections against the use of any existing braces or other contrivances for the relief of inflammatory conditions of this joint, are obviated by the use of my sector splint and combination attachment. These are: 1st, the perineal band with its chafing and discomfort; and 2d, the production of extension in only one position and subsequent anchylosis. For this purpose the splint is used as a bracket (although the sector arrangement may be inserted into any brace). It consists of two terminal plates of thin copper—perforated upon the upper or plaster side—connected by a compound slotted bridge raised a short distance from the surface. This bridge consists of two over-

FIG. 2.

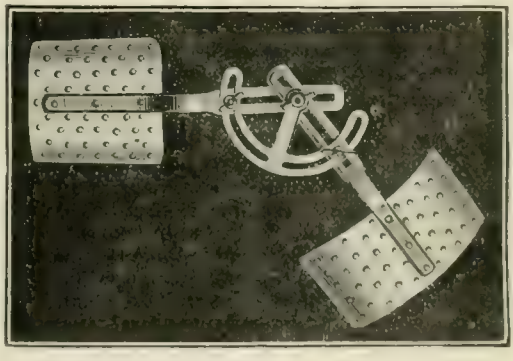


FIG. 3.

riding slotted steel strips, connected to a slotted steel sector by three clamps, as shown in Fig. 3.

These clamps may be operated either with a thumb-screw or key.

APPLICATION

Strips of the canton-flannel adhesive plaster are fastened vertically around the waist and along the

thigh of the affected side, a space of one-eighth to one-half inch between, and then bound down by longer strips encircling them. The plates of the bracket are then sewed to two long strips of the adhesive plaster (see Fig. 4), which binds it down closely and unalterably to the limb.

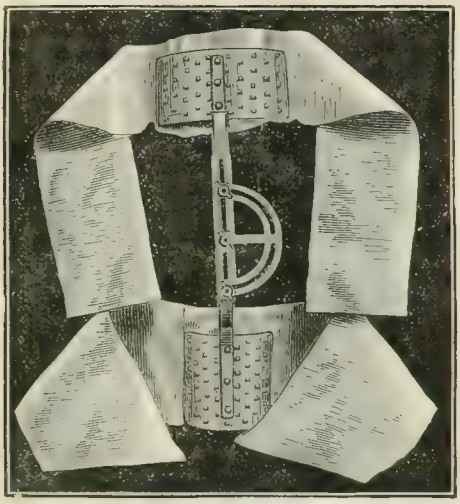


Fig. 4.

In applying the bracket, care should be taken to have the central line of the strips and plates correspond to axes of the body and thigh, and the bridge shortened. It may be applied in any position of the limb. The bracket is now to be closely bound down to limb and waist by the thick, strong adhesive plaster (the bridge being in position over the joint), and only needs a few rollers of starch-silicate or plaster-of-Paris bandage wound around the plates to insure the firmness and fixation of the whole, cleanliness being effected by a dry muslin-bandage covering. (See Fig. 5.)

Every inflammatory condition of this joint—acute or subacute—whether arising from disease, injury, or operation, can be benefited by this simple splint; for by allowing the limb to be fixed in the most suitable position, and causing extension to be made in that position, diseased surfaces are separated, reparation encouraged, and the sufferings of the patient diminished. Passive motion may be employed as often as desired, the limb between such occasions being locked securely by the clamps in any position, and with any degree of extension, any induced or existing inflammation being combated by external applications, which are permitted by the exposure of surface allowed by the structure of the splint.

This splint is sufficiently powerful to effect a gradual reduction of deformity, anchylosis, etc., and with a very little degree of discomfort to the patient, as the fulcrum of the lever is in the bridge of the splint over the joint and not in the joint itself, the contiguous surfaces of which are previously drawn apart and retained so during and after the reduction. This process may be repeated as often as necessary, and in many cases will obviate the necessity for operation.

This splint in its various modifications may be used for all or any of the joints of the body, occupying for itself a new and unique field among surgical appliances, bearing the same relation to the knife in surgery that the bougie or gradual dilator does to the knife in the treatment of stricture of the urethra, doing away with its use in many cases, and when it is used, assisting the knife, by placing the joint under the best possible condition for rapid, proper, and complete recovery. In morbus coxarius it is proving itself invaluable, and in connection with the crutches and the raised shoe (Hutchinson's method), fulfils *every* indication for treatment, although I have found the advantages

Fig. 5.

arising from the shoe not so important providing the crutches and the bracket were used. The use of the latter causes pain, startings of the limb, etc., to cease at once, and allows the patient to pursue out-door occupations. Among other recommendations of the splint may be mentioned:

1st. Utility—the uses for the splint being so varied.
2d. Simplicity.
3d. Durability.
4th. Cheapness.

One bridge can be used for any or all of the large joints of the body by means of removable attachments to terminal plates of assorted sizes. It may be used with any form of joint, brace, or attachment, the slotted strips and sector being readily inserted into them by competent workmen. In itself it provides a false joint, fulfilling all the mechanical conditions of the joint, while that is kept under the best influences for proper recovery.

It combines all the valuable or necessary movements of all the joint-splints in use, and is much more simple and easily managed.

The British Medical Journal states that not a single case of the plague occurred among the Kalmucks, who live totally regardless of sanitary rules, although the disease recently prevailed epidemically only a short distance from them. The conclusion seems to be that the disease is really due to some other agent than anti-hygienic conditions.

ULCERATION OF THE CERVIX UTERI COMPLICATING SALPINGITIS, AND ANTERIOR AND POSTERIOR VERSION.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

For the expressive title of "Anterior and Posterior Version of the Uterus" I am indebted to Dr. Samuel C. Busey, who published a most interesting case under this heading in Vol. III. of the Gynecological Transactions. After reading his reprint, I am induced by his suggestion of its propriety to report a case of somewhat similar nature, but even more complicated in detail. It is the more phenomenal as occurring in an unmarried female.

History.—Miss A., 22 years of age, unmarried, the daughter of a distinguished lawyer and member of Congress, consulted me on June 5th, giving the following history: She had always been an ambitious student, a great reader, and of literary tastes. She was reared in all the luxury that wealth could give, and had indulged in those dissipations, so subversive of physical well-being, which the civilization of the age encourages. Two years previously she had overexerted herself by getting up in the night and accompanying a young lady to witness the conflagration of the county court-house. Since that time she has complained of a fixed and constant pain in the occiput, spasmodic muscular contractions, dimness of vision, with conjunctival congestion; pains in the back and loins, in both iliac regions; rectal and vesical tenesmus, and general debility.

Appearance at time of consultation.—The patient is below the medium stature, of a bilious habit, pale and thin. Her face is flushed, with head thrown back; both eyes suffused; pupils dilated. The central retinal artery of both eyes is congested. There is a constant and fixed pain in the occiput, with occasional tonic and clonic contractions of the fingers, and considerable idriosis. She is unable to walk any distance, and can sit up but for a short time. Two weeks prior to her arrival in Washington she says that she had two spasms. She complains of pain in the back, of neuralgic pains following the course of the ascending and descending colon, of pain in both thighs, and of a frequent desire to urinate. She has suffered from a catarrhal discharge from the vagina, which has frequently been tinged with blood.

Pathological conditions.—The patient being in the dorsal position, a digital examination, which was effected not without difficulty, discovered a round, enlarged body occupying the cul-de-sac of Douglas, which proved to be the fundus. The cervix was tilted up upon the symphysis pubis. The vaginal walls were hot, swollen, and dry. The neck was rough to the touch, enlarged, and doughy. Placing the patient in Sims's position, I endeavored to tilt the womb over into a normal position with the dorsal aspect of the first and index fingers, asking her to take a deep inspiration, and at the moment of lifting to make a prolonged expiration. Failing to accomplish anything in this way, I introduced the sponge-holder, and by abdominal manipulation I succeeded in replacing the organ; but, immediately upon withdrawing the instrument, it assumed its condition of retroversion. I then introduced a Simpson's sound, hoping to use it as a lever. To my astonishment it passed up over five inches. After a little patience I found the normal measurement of three inches, and then passed the sound up the tube for at least an inch and one-half farther. I then told the patient that I would not subject her to any continued annoyance, but would return upon the morrow, prepared to better her condition. I advised the free use of the vaginal douche of hot water night and morning, that she should abandon corsets, suspend her clothing from the shoulders, and rest in bed upon her side, with the head low and the hips elevated. My diagnosis was ulceration, retroversion, salpingitis. The next day I called with the intention of meeting these indications, but was utterly surprised to find the womb in a position of anteversion. I could not be mistaken in my diagnosis of the day previous, which was reached after great care, and hence concluded that it must be one of those rare cases of interchanging version. The patient being in Sims's position, through a Barnes' pledget speculum I carried a pledget of cotton, well saturated with a solution of subnitrate of bismuth and glycerine, to the cervix, and then carefully withdrew the instrument, so that the collapse of the vaginal walls might hold it *in situ*. I ordered her to remove it by means of the silk thread attached to it, at the end of twelve hours, and to insert a suppository of tannin and belladonna. On June 8th, after introducing a Sims's speculum, I found that the granulations were not as exuberant, that the color of the cervix was more natural, and that there was no bleeding. I painted the cervix with a saturated solution of tannin and collodion. I then took wads of prepared jeweler's cotton (saturated in a solution of bicarbonate of soda, and well dried), dipped them in carbolized oil, and carried one up into the fornix vaginæ, pressing up the fundus, and the other opposite to it, over the cervix (the womb being anteverted). I then placed a tampon of the same material in the vagina, advising that she leave all in place for forty-eight hours. I prescribed a pill to be taken three times a day, as follows:

℞	Ferri redacti	gr. ij.
	Quiniæ sulphatis	gr. i.
	Strychniæ sulph	gr. $\frac{1}{60}$
	Arsenic	gr. $\frac{1}{30}$
	Hyoscyamin (Merck)	gr. $\frac{1}{60}$

and ordered the semi-abdominal decubitus for six hours a day. After two days I again visited her, and removed the tampon and rollers. The granulations were still flabby and unhealthy; these I touched with chromic acid, and painted the whole surface with the bismuth paste. After replacing the womb, I again resorted to the cotton supports, until I might devise some permanent apparatus which could be worn without danger of irritation. Hygienic and therapeutic treatment to be continued. I was much puzzled as to a means of holding the womb in proper position. Naturally, in primiparæ there is intolerance of any instrument that may occasion distention, and, in any event, the whole womb was so irritable that a peri-uterine cellulitis might easily have been induced by a pessary of ordinary make. I determined to continue the use of the cotton until I could establish a *habit* of correct position in the uterus, even if it were of the very slightest degree; to use an ointment of tannin and vaseline over the hypogastrium, to relieve anæmia, and to act on the nervous system. Every forty-eight hours for two weeks I removed the cotton, washed out the vagina until I found that the uterus was accustoming itself to a slight condition of anteversion, when I introduced a pessary made for me after the following plan: A wire pessary of fine steel, with its opposite ends rounded off and parallel—somewhat after the manner of a Hodge's retroversion, if it were straightened out—was wrapped with carbo-

lized ligature silk, so that the end that should rest upon and support the fundus should be well padded, and of greater bulk than the other parts. Midway the pessary was divided by two padded wire septa, leaving a sufficiently large fenestrum for the cervix. The padded end I carried up under the fundus; then bent the pessary so that the cervix should be fixed in the fenestrum, the other part resting against the symphysis pubis. I dry-cupped the cervical region, and rubbed in croton oil behind the ears. The next day my patient complained of less pain, and said that she experienced no discomfort from the mechanical contrivance. I evacuated the blisters, and prescribed capsules of the compound pill of assafœtida and oil of anise. The pessary she wore for ten days; at the expiration of that time I removed it, and, finding the uterus in good position, but the vaginal walls flaccid, I prescribed suppositories, to be used night and morning, of tannin and belladonna, hoping to establish such contraction of the vaginal canal as that its walls might afford the necessary support. At the time of writing the patient is doing well; the uterus remains in position; the vaginal canal, having resumed its proper dimensions, serves as a support; there is no pain in the back, or rectal or vesical tenesmus. The pain in the occiput still continues, and it may be that I shall apply leeches to the temple and order Duquesnel's aconitiæ internally.

1502 Fourteenth Street, N. W.

A CASE OF DOUBLE OVARIOTOMY.

By DR. JOHN I. DYER,

Visiting Physician to the Washington Asylum, D. C.

A. M——, German, aged thirty-five years, of sanguine temperament, mother of one child, now sixteen years old, was admitted into the Washington Asylum Hospital November 15, 1878, with a large tumor in the abdomen, supposed to be fibroid of the uterus.

Inquiry into the history of the case elicited the facts that the tumor was first noticed about the 1st of March, 1877, as a round ball in the left iliac region, and very movable. It grew rapidly, and was attended with almost constant pain. After seeking relief in various quarters, she was admitted, as above stated, into the hospital under my charge. The tumor was then as large as the gravid uterus at full term, very tense, elastic, and immovable.

Careful examinations made at different times, together with its rather rapid increase in size, led to the opinion that it might be a cystic growth of the ovary, and it was resolved to aspirate it. This was done on the 4th of February, and a gallon of fluid was drawn, with the result of diminishing its size about one-third.

Previous to, and after this operation, frequent attacks of pain in the abdomen, with tenderness on pressure and motion, were complained of, which were relieved by morph. sulph., and latterly suppositories of opium as needed.

With the additional light of a microscopical examination made by Dr. Schaeffer, and in consultation with Drs. Thompson, Eliot, and Ashford, the diagnosis of left multilocular ovarian tumor was made and ovariotomy advised, as giving the patient, already beginning to depreciate very markedly, her only chance of relief. She gave a ready and cheerful consent.

For three days before the operation she was restricted to a liquid diet exclusively, and on the morning of the operation her bowels were freely moved by enema. Twenty grs. quin. sulph. were given the night before, and tinct. fœtid, ℥ ss., and tinct. opii gtt. l., in a small quantity of water, was thrown into the bowels a few hours before the operation.

Having thus prepared the patient, on February 26th I proceeded to operate, assisted by Drs. Wailes, Ashford, Eliot, and Reyburn. Being quickly brought under the influence of the anæsthetic, and the carbolized spray directed continuously upon the parts, an incision of about four inches, commencing just below the umbilicus, was made, and carefully dividing the abdominal parietes the tumor was exposed. A trocar was plunged into the presenting walls of a cyst, and its contents evacuated. A second and a third were thus opened, and the growth could only be partially drawn through the incision. This being enlarged downward an inch and a half, it was found that the tumor was firmly adherent, below and in front, to the uterus, whilst laterally and behind its whole circumference was attached by strong adhesions to adjacent parts.

These were with considerable difficulty torn through, and in doing so two cysts were ruptured and their contents lost, one of which contained from six to eight ounces of pus. These small arteries spirted and were secured by ligatures, which, cut short, were left in the cavity of the abdomen.

All adhesions being separated, it was found that the tumor was *right* ovarian, which by change of position in its early stage of development had fallen into the left iliac space. Its pedicle, consisting of the right broad ligament with Fallopian tube enclosed, being stretched across its lower anterior surface, spreading as it advanced toward the right side of the abdominal cavity into a broad expansion of very vascular peritoneal tissue.

Through about the centre of this, three ligatures were passed, and brought out through the abdominal incision. The left ovary was then sought for, drawn out, and found to be in a similar encysted condition, though much smaller in size—about that of a healthy kidney. Two ligatures were passed through its pedicle, brought out at the lower end of the wound, and the diseased ovary cut off.

Atlee's clamp was applied to the pedicle of the right ovary, and the wound—a glass drainage-tube being placed in its lower angle—closed with silver-wire sutures.

The time consumed in the operation was one hour and forty minutes, and this length of time must be taken as the measure of the difficulty met with in separating the close adhesions which bound the tumor to neighboring structures.

The weight of the solid portion of the tumors was six pounds. Their fluid contents were partially caught in a vessel conveniently placed; a portion, probably one-half, was unavoidably lost, and through the carelessness of one of the nurses, what had been collected was thrown away before its amount could be determined by weight or measure.

The patient, cold and nearly pulseless, was put to bed, hot blankets and bottles of hot water applied around her. Hypodermic injections of morph. sulph., ¼ gr. twice repeated, and of whiskey more frequently, were given, and in five or six hours she began to react, so that at 10 o'clock P.M. her pulse stood at 135, temperature 102° F. Towards morning the catheter was used. Nausea and vomiting distressed her during the night and for some days afterwards; but the plan of treatment, keeping her fully under the influence of opium, and using the antisep-

tic treatment of the wound, was steadily kept up, with the result of a recovery, in what was considered at the end of the operation a hopeless case.

I will give a brief summary from notes taken at the time, of the progress of the case to the date of the separation of the ligatures, prepared by Dr. Timins, resident physician of the asylum, whose unceasing care and devotion to the case by day and night deserve the highest praise:

Feb. 27th, 6 P.M. Pulse 135, temperature 99° F. Passed the first night with frequent attacks of retching, and complained of pain, referred to lumbar region. Crushed ice, opium in suppository, and morphia hypodermically used. Catheter used; but she had passed water, and continued to do so without difficulty thereafter.

Feb. 28th, 8 A.M.—Pulse 135, temperature 100.3° F. Great thirst and prostration. Small quantities of milk-punch and crushed ice given, but the stomach retained nothing. Severe pains, now and again in back, combated with opium suppositories and morphia hypodermically. Had short nap. 6 P.M.—Pulse 120, temperature 98° F.

March 1st., 6 A.M.—Pulse 114, temperature 99° F. Great epigastric pain. Ordered mustard poultice and hypodermic injection of morph. sulph., gr. ¼. Except cracked ice, nothing was given this day by the mouth. Nutritive enemata were given of milk, yolk of egg, and brandy to the second one, to which tinct. opii gtt. l. was added. Moreover, 4 grs. of opium in suppository was used during the twenty-four hours. Wound dressed; considerable overflow from drainage-tube, with but little odor. Cavity washed out with carbolized water.

March 2d.—Pulse and temperature as before. Gastric irritability worse. Small quantities of hot drinks tried. Also champagne and ice, bismuth, oxalate of cerium, bromide of potassium per rectum, with no benefit. Then nothing whatever was given by the mouth, merely moistened now and then with tea or milk. Nourishment restricted to enemata. This day tympanitis with borborygmus set in, annoying her more or less for the next four days. Assafœtida, turpentine, with other remedies, were given per rectum, which, together with the continued use of opium, kept the patient fairly comfortable.

March 3d.—Temperature 101.5° F. this day. Stomach tolerated a little beef-tea. Ordered quin. sulph., grs. xxx. per rectum.

March 4th.—Begins to take nourishment by the mouth, and, except on two occasions, vomited no more. Pulse fell to 100 this day and continued thereabout throughout the remainder of the time noted.

March 5th. Ordered injection of warm water carbolized—containing turpentine and assafœtida, with the result of a good movement from the bowels, and great relief of flatus.

March 6th.—Began to dress wound twice in twenty-four hours. Smaller-sized drainage-tube inserted.

March 7th.—Clamp and sutures removed.

March 8th.—Drainage-tube removed.

March 9th.—Considerable purulent matter and a large offensive flake washed out of the cavity this morning. Ligature of left pedicle still fast; no abdominal tenderness. Quin. sulph., gr. xx. per rectum.

March 12th.—Ligatures came away this day. Dressing reduced to once in twenty-four hours. The wound contracted nicely, and by the 24th inst. was entirely closed. The patient sits up, feeling well, and able to get about, which she will be allowed to do as soon as she gets an abdominal supporter.

Reports of Hospitals.

WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

SERVICE OF NATHAN BOZEMAN, M.D.

RETROFLEXION OF THE UTERUS, WITH FIXATION.

A CASE of retroflexion was shown in which the uterus was bent backward almost at a right angle, and yet in which the patient had not consulted medical advice until after the menopause.

The organ was in a state of marked fixation, which was thought to be probably the result of some former inflammatory process, although the only abnormal feature about the pelvis now discoverable, with the exception of the condition of the uterus, was the thickening of the broad ligaments, which is so frequently found in cases of this kind. The patient had been subject to uterine hemorrhage more or less severe and frequent, and the fundus had been in such a hyperæmic condition, that the slightest touch of the probe was followed by quite a free flow of blood. This engorgement was being treated with applications of a solution of carbolic acid in glycerine, of the strength of half a drachm to the ounce, and also by the frequent use of hot vaginal douches. Under this course of treatment, decided improvement had taken place, notwithstanding the fact that it was as yet impossible to restore the uterus to its normal position. A little later it was proposed to accomplish this restoration by gradual pressure upon the vagina and the fundus uteri by means of the persistent use, for a sufficient length of time, of cotton columns applied in the vagina, in accordance with the method that has proved so successful in Dr. Bozeman's hands.

The plan is original with him, and is somewhat as follows: The patient having been placed in the knee-elbow position, and Bozeman's speculum introduced, a pledget of carbolized cotton is pushed up against the fundus with a pair of dressing-forceps, and held in position there by means of the perineal elevator ordinarily employed in connection with this speculum. A second and third pledget is then applied in the same manner, the perineal elevator being drawn a little further out as each is introduced; and this process is carried on until a firm column of cotton, not stuffing up the whole vagina, but of comparatively narrow diameter, has been formed that reaches obliquely from the fundus of the uterus to the symphysis pubis, which is here the *point d'appui*. Such a column may ordinarily be left in position for about two days, but should not be allowed to remain for longer than forty-eight hours. These columns should be put in about every three days, the patient being allowed to rest for twenty-four hours after the removal of each one, and vaginal douches being used in the interval. When by this means the uterus has been restored to its normal position and the vagina to its normal condition, any appropriate support may be worn by the patient as long as is necessary, and that which is best adapted for the purpose is the instrument known as

BOZEMAN'S VAGINAL SUPPORT.

It has been thus described by Dr. Bozeman, in a paper presented to the American Gynæcological Society in 1878:*

* The Mechanism of Retroversion and Retroflexion of the Uterus, and Selected Remarks on the Various Instruments of the Past, as Used and that Employed by Bozeman. Transactions of the American Gynæcological Society. Volume III.

"This instrument is constructed upon the principle of the parallelogram. It is elastic and thoroughly self-sustaining. The instrument is made of coiled steel wire. It has vesical and rectal branches, which are covered with thin rubber up to points near the heel of the instrument, where an opening is left for the escape of the menstrual and other discharges. Upon the vesical branch is set a hair cushion which is to receive and support the vesico-vaginal septum. The covering of the rectal branch is distended with air, in order that it may adapt itself uniformly to the recto-vaginal septum. The two upper uneven points are united by a broad elastic apron, which, like a chair, is to receive the cervix uteri, and, to a certain extent, support the weight of the entire organ. When viewed edgewise, the instrument presents somewhat the appearance of a jockey's cap, and a medical friend suggested that it be called the 'jockey-cap pessary.' However, to avoid the name of a uterine pessary, I prefer to call it a *vaginal support*. This name is in strict accord with the action of the instrument, for it leaves the uterus and its relaxed ligaments to take care of themselves in their normal relation and position. This is an attainment of the highest aim I can conceive for any form of instrument employed for the latter purpose."

The great objection to its use is, that after a time it becomes offensive on account of the absorption of the vaginal discharges by the rubber with which it is covered; but this can be obviated, to a great extent, by providing the patient with two of these supports, so that she need not wear either instrument very long at a time. After one of them is removed it should be thoroughly cleansed with a solution of permanganate of potassa. It may be stated also that improvements are now being made in the construction of the instrument, which will prevent it from becoming thus offensive. One advantage connected with this instrument which has not been mentioned, is that the patient can be readily instructed how to introduce and adjust it, as well as to withdraw it, herself.

Where there is anteflexion or anteversion instead of retroflexion present, the treatment is the same in principle. Here the patient is placed preferably on the back, while the column of carbolized cotton is built up from the perineum as the *point d'appui*, and extends obliquely to the vesico-vaginal septum, where the body or the fundus rests. When the organ has once been restored, the vaginal support is to be worn as before.

SMALL PELVIC TUMOR OF DOUBTFUL DIAGNOSIS.

In this case, there was a mass at the side of the uterus somewhat in the region of the left ovary, of several years' growth, which had pushed the body of the uterus to some extent over the right, and which occasioned the patient a great amount of severe pain. It was situated at a point just above the juncture of the cervix with the body of the uterus, and the exact nature of the tumor had not as yet been determined. The fact that it was close to the uterus, as well as its very slow growth, seemed to exclude the ovary as the seat of trouble, and the diagnosis lay, apparently, between cyst of the broad ligament and fibroma of the uterus. There were some points in favor of both of these hypotheses.

Thus there could be no doubt that it was intimately associated with the uterus, as its mobility, aside from that of this organ, could not be established; but still it certainly had not that firm consistence which ordinarily characterizes uterine fibroids. Yet, on the other hand, while the mass yielded, to some extent, to pressure made upon it by the fingers, it was not nearly as soft to the touch as cysts of the broad ligament are apt to be, nor did it present that sense of fluctuation which, as a rule, is met with in these growths. The diagnosis was thus left somewhat in doubt; but it was proposed, a little later, unless some new developments should be made in the case, to puncture the tumor, and see whether it were not really a cyst. The pain, in Dr. Bozeman's opinion, was probably due simply to the increasing distention of the growth, and not to the pressure produced by it upon the surrounding pelvic organs, as its size was such that it would hardly be likely to occasion much inconvenience in this way. If this idea were correct, great good would no doubt be accomplished by the proposed puncture, on account of the relief from pain which it would thus afford.

BOZEMAN'S SPECULUM.

During the examination of this case, Dr. Bozeman at one time made use of Sims' speculum in connection with his own (which afforded a very perfect view of the os, cervix, and vagina); but this is never necessary when one has at hand the special perineal elevator, somewhat like a narrow spatula, which is ordinarily employed with his instrument. Bozeman's speculum is a bivalve instrument, which, by an admirable mechanical contrivance, is made to work on the principle of the parallelogram of forces, according to which, the greater the resistance, the greater is the power exerted. Hence, as the blades become more and more widely separated by turning the ratchet which controls their action, the force with which they distend the vaginal walls is gradually increased, while, in addition, their distal ends flare to a greater and greater extent. This renders the instrument self-retaining, and the services of a nurse or attendant can therefore be altogether dispensed with in its use. Other advantages of this speculum are, that the blades, being comparatively narrow, and, being widely separated when in position, the best possible view of the parts can be obtained at the same time that ample room is afforded for performing any operation about the cervix or vagina; and that it can be used while the patient is lying upon the side or back, or is in the knee-chest position, which, in many instances, is decidedly preferable. When the instrument is employed with the woman on her back, Dr. Bozeman is in the habit of slipping in a third or posterior blade (for which there is a provision made), and the perineal elevator above mentioned can also be used at the same time, if desired, which makes a complete and excellent four-bladed speculum of it. When the patient is in either of the other postures, only the perineal elevator is necessary.

LARGE FIBROMA OF THE UTERUS.

A patient, thirty-three years of age, had a large fibroma of the uterus, which had given rise to so much metrorrhagia that she had become exsanguinated to a very serious degree. It was in the posterior wall of the organ, and when the case was first examined, it was thought that it extended only the length of the normal uterus, to which distance only could the probe be passed.

So far from this being the case, however, it was soon ascertained that the fibroid reached fully to the height of the umbilicus, if not a little above this point. If the abdomen could have been more readily compressed, the fundus would no doubt have been felt very much in its natural position, with the exception of its being thrust slightly forward by the fibroid,

while between the two the fingers would have passed into a distinct sulcus.

When the speculum was introduced, the lowest portion of the growth could be plainly seen behind the cervix, and the os externum was found to be very widely dilated, with some eversion of its lips. Still, the mucous membrane of the cervical canal was quite healthy in appearance, as far as it could be seen.

When the patient first came under observation, it was believed that the fibroid projected to some extent into the uterine cavity, and that it would probably be a good case for the employment of Thomas's serrated scoop; but later investigation showed that this was not really the fact. Dr. Emmet had recently seen the case in consultation, and he had concurred in the opinion that no operative procedure should be attempted, for the present at least. The great point now was to build up the patient's general health in every way possible; and since her admission to the hospital she had improved very much in this respect, at the same time that the uterine hemorrhages had become much less frequent and copious than they had been previously. The only local treatment that she was receiving was the hot-water vaginal douche, and the painting of the cervix, and Douglas's cul-de-sac, two or three times a week, with Churchill's tincture of iodine. In case the metrorrhagia should return more freely, it was recommended that the iodine should be applied within the cavity of the uterus also. Internally she was taking two drachms of Squibb's fluid extract of ergot three times a day, in the hope that the contractions caused by it might have the effect of forcing it, to a greater or less extent, down into the cavity of the uterus.

PROLAPSED AND IMPRISONED OVARY IN A CASE CURED OF VAGINITIS AND VAGINISMUS.

This patient had recently suffered very greatly from vaginismus, which was due to vaginitis formerly existing, and this had been successfully treated by the method of systematic and continued dilatation. There still remained, however, an abnormal condition of the ovary, which gave her a great deal of distress, and which was the cause of various shooting pains about the hip, pelvis, and down the thigh, that are, as a rule, characteristic of this difficulty.

The right ovary, probably on account of its being in a state of marked congestion, had become prolapsed, and had slipped down, not into Douglas's cul-de-sac, as sometimes occurs, but simply behind the broad ligament, and had there become imprisoned, as it were.

The local treatment consisted in pressing the ovary up as far as possible into its normal position by means of a cotton tampon; and it was stated that, even in cases where the organ remained fixed in its prolapsed situation, great relief from suffering was not infrequently experienced by the patient, merely on account of the pressure exerted upon the organ. The patient's general condition had improved very greatly during her residence in the hospital.

VESICO-UTERO-VAGINAL FISTULA, COMPLICATED WITH INCARCERATION OF THE CERVIX UTERI IN THE BLADDER.

When first admitted, this case had been a very complicated one. The fistula was immediately in connection with the cervix, and that portion of the uterus was actually protruding into the bladder, while the body of the organ itself was in a state of complete retroflexion. This displacement had now been rectified, and several preliminary operations, in preparation of the method of lateral incisions, had already been performed. Nitrate of silver was being applied locally from time to time, and it was hoped that before long the final operation for the complete closure of the fistula, might be undertaken with a reasonable hope of success.

CYSTOCELE AND HYPERTROPHY OF THE URETHRA.

The last case seen was one in which Dr. Bozeman had performed ovariotomy six or eight weeks previously. The operation had been a complete success in every way, but, in addition to the ovarian trouble, she had suffered from a considerable degree of prolapsus of the uterus, together with marked prolapse of the anterior wall of the vagina and the bladder, and hypertrophy of the urethra. Since the ovariotomy, the prolapsus of the uterus had been gotten rid of, but there still remained the other difficulties named. Attention was now being directed mainly to the condition of the urethra, and twice a week a solution of forty grains of nitrate of silver to the ounce was being applied to the urethral canal, while a solution of sixty grains to the ounce was applied about its orifice and the adjacent mucous membrane.

After the urethra had been restored as far as posible to its normal condition, it was proposed that the patient should wear one of Dr. Bozeman's elastic vaginal supporters, and it was believed that if she did so constantly, the presence of the cystocele still remaining would not occasion her any inconvenience whatever. The great advantage of this supporter, as above stated, is, that it can be adjusted at will by the patient herself; and it is found to be of service in a very extended variety of cases. Especially is it valuable in instances of hypertrophy and congestion of the uterus, where the patient is subject to marked menorrhagia and other troublesome symptoms. Almost invariably, in such cases, after the woman has worn the supporter for some little time, it is found that the menorrhagia disappears entirely (the catamenia lasting only the normal period, instead of a week, or even ten or twelve days), and, the congestion of the uterus being thus relieved, that all sense of weight and discomfort about the pelvis is dissipated.

Progress of Medical Science.

Typhoid Fever due to the Ingestion of Diseased Meat.—An epidemic of typhoid fever, interesting in its etiology, followed a musical festival at Zurich, in May, 1878. Out of some 700 assistants, 500 were attacked by the disease, of whom 100 died. The symptoms could not be mistaken, and the autopsies confirmed the diagnosis. A minute inquiry into the circumstances left but little doubt, that the epidemic was due to the use of bad veal furnished by an innkeeper of the place. It may be claimed by those who attribute to general causes the power of originating specific diseases, that the typhoid fever was due to a septic poison present in the veal, depending possibly on a beginning fermentation, which was not destroyed by the cooking to which it had been submitted. On the other hand, as the animal from which the meat was taken was sick, it may be asked whether it might not have been suffering from typhoid fever, although this disease has never yet been recognized among animals. It is a remarkable fact that in 1839 a similar but much less fatal epidemic occurred in a neighboring locality. After a reunion that took place under similar circumstances, 440 persons were taken sick with all

the symptoms of typhoid fever. It is probable that in this case also the meat of a sick calf gave rise to the disease.—*Journal de Médecine*, June, 1879.

An Ointment for Chronic Pains.—The following is recommended for the pains of chronic or subacute gout, rheumatism, neuralgia, etc., by Dr. Lenoble, of Esternay:

℞ Pulv. Gambogiæ,
Myrrhæ,
Canellæ,
Sodæ salicylat..... āā 10 grammes,

reduced to the proper consistency with spirits of turpentine. The affected part should be well rubbed with this three times a day, and then enveloped in cotton or wool.—*Revue Médicale*, June 14, 1879.

Ocular Chancre.—The following case is reported by M. Boucheron: A young woman, eighteen years of age, presented an intense redness of the conjunctiva, the pericorneal injection of iritis, the hypertrophy of the semi-lunar fold seen in certain cases of palpebral granulations, and the symptoms of a foreign body present in the internal angle of the eye. A careful examination revealed a small ulcerated groove, with gray borders, on the semi-lunar fold. A chain of indurated glands was also found, extending from the pre-auricular gland, behind the angle of the jaw, to the lateral region of the neck. A diagnosis of indurated chancre was made, and confirmed shortly afterward by the appearance of a confluent roseolar eruption. Cases analogous to this have already been observed; among others, that of a professor of the *Faculté de Paris*, lately dead, who was also inoculated on the semi-lunar fold, the poison being conveyed thither on his finger, while endeavoring to relieve an itching of his eye, immediately after examining a woman. In M. Boucheron's case, the poison was probably communicated by means of a kiss from a person suffering from mucous patches of the buccal mucous membrane.—*Gazette des Hôpitaux*, June 14, 1879.

Organic Stricture of the Prostatic Urethra.—The existence of stricture of the prostatic urethra, although maintained by Leroy d'Etiolles, Ricord, Civiale, and others, is denied by Sir Henry Thompson, who has been unable to find any anatomical specimen proving it, and who rejects as unreliable evidences drawn from examinations of the living body. The following case, however, reported by Dr. Mastin, of Mobile, Ala., deserves examination:

J. B., aged 46, applied in June, 1877, for relief of stricture. He had contracted gonorrhœa in 1856, and again in 1861; shortly after which his stream of urine diminished in size. In 1871 and in 1874 he was attacked by complete retention, which was only relieved by forcible catheterization. At this time (June, 1877) he could only pass his water by drops. On examination, a sound, No. 22 F., could be passed down the urethra with ease for a distance of seven and one-quarter inches, beyond which not even the smallest filiform could be introduced. This, according to Sir Henry's measurements, would place the obstruction at the apex of the prostate. Otis's urethrometer showed the normal calibre of the urethra to be 32 mm., and the canal anterior to the prostate to be free from contraction, except at one point about an inch anterior to the bulb, where it was narrowed to 21½ mm. External perineal urethrotomy was determined upon, and Dr. Mastin proceeded to cut down upon the end of a staff. Opening into the membranous urethra, he placed his finger upon the apex of the prostate, and proceeded to satisfy himself that there could be no mistake as to the position of the stricture. It was unmistakably within the prostate. After some difficulty a Maisonneuve urethrotome was carried into the bladder, and the stricture divided. The patient did well. Nine days later, the anterior constriction was operated upon, and a sound, No. 32 F., carried into the bladder. Eighteen days after the first operation, he was discharged cured. To guard against the mistake, pointed out by Sir Henry Thompson, of regarding the narrowing of the canal occasioned by certain enlargements of the prostate as organic stricture, a careful examination was made at the time of the operation. There was no hypertrophy of the gland; on the contrary, it was below the average size. Dr. Mastin is inclined to think that the trouble started first in a prostatitis, and was afterward aggravated by the mechanical injury suffered from the forcible introduction of the catheter.—*The Boston Medical and Surgical Journal*, July 26, 1879.

Method of Removing Hairs.—A writer in the Michigan *Medical News* gives the following method of eradicating superfluous hairs, as practised by Dr. C. E. Mitchell, of St. Louis: The hair is seized and held with a pair of ordinary forceps, and a sharp needle fastened to a handle (a small, sharp pegging-awl will do) is passed down parallel to the hair, within its sheath, until the bottom of the follicle is reached; the point of a small needle, also provided with a handle, is then dipped into some fused nitrate of silver, until a minute ball of crystals gathers around the point, and the hair-follicle is thoroughly cauterized with this miniature caustic point thrust through the puncture previously made. In a few hours the hair will ulcerate out by the root, without pain; no visible lesion is left, and the hair does not grow again.—*The Medical and Surgical Reporter*, June 28, 1879.

Pustular Inflammation of the Vagina.—The following case is reported by Dr. Herman, of the London Hospital: A woman, aged 27, applied for relief from a thick yellow discharge from the vagina. A tolerably distinct syphilitic history was obtained. On digital examination, the vagina was felt to be studded with small, hard, raised, roundish, shot-like swellings, varying in size from a small shot to that of a small pea. These were most numerous at the upper part of the vagina, where they were so abundant as to become confluent in spots. With the speculum these were seen to present different appearances. Some were simply papule-like elevations; some were smooth, rounded, but yellow in the centre, as if containing pus; some presented on their summits crater-like depressions, lined or bordered with yellowish white—seemingly pustules which had burst; and some were simply small, superficial ulcers. Between these diseased parts, the nearly healthy mucous membrane could be seen—smooth, but somewhat bluish in color, and more injected than the healthy membrane nearer the vulva. The vaginal portion of the cervix uteri presented appearances somewhat similar to those of the general vaginal surface: it was red and raw-looking everywhere, and when first seen pustules were present. The vagina and os uteri contained a thick, yellow, glutinous discharge. Dr. Herman has himself seen no other case of the kind, nor has he been able to find records of any similar case. In the "granular vaginitis" described by Deville, pustules are not mentioned as being present.—*The Obstetrical Journal of Great Britain and Ireland*, July, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 30, 1879.

THE REGULATION OF PROSTITUTION AS A SANITARY MEASURE.

THERE is no doubt of the fact that the majority of the medical profession are in favor of some method of so regulating prostitution as to diminish the amount of disease that its existence entails. Being, as they are, brought constantly in contact with the immense evils which venereal diseases inflict upon society, it is natural and praiseworthy that they take the ground they do. We believe, however, that there is a very general ignorance of the exact results of the regulation systems now in vogue, and we propose to present some facts upon this point.

The position of the sanitarian and regulationist is essentially this: Venereal disease causes direct injury to the citizens of the state; it cripples their activity, and may throw them as a burden on the government. The government, therefore, has a right to protect itself from such disease as much as from small-pox or typhus. In order to do this there must be a governmental supervision and medical examination of prostitutes. In defence of the justice of such plan, it is claimed that the prostitute is to be regarded as a person who has certain things to sell; she follows a trade, and she has no right to sell goods which damage and infect society. There should be protection given here, just as well as from poisonous adulterations in any other branch of trade.

From another standpoint, again, it is argued that prostitution is inevitable, and its existence is necessary as a safeguard against worse evils. Therefore, what is inevitable and necessary should be rendered as innocuous as possible. It is asserted, further, that duties and rights are correlative. If a person fails to perform the former, he or she cannot claim the latter; and prostitutes, not having performed their duties, have thus abrogated their rights. Stripped of casuistry and elaborate statement, the point of the matter is, that a great danger is to be guarded against, and the end justifies the means.

Whatever train of argument may be followed, we believe it a legitimate conclusion that, if any law or regulation can lessen the dangers from venereal diseases without greatly violating justice or natural rights, it should be adopted.

We do not propose, and it is not our province, to discuss the moral side of the question, any further than it involves this question of natural rights, but simply to discover whether, as a sanitary measure, some system of regulation may not be adopted which will be just, efficient, and worthy of encouragement. There is a great deal of material before us now for judging whether this is possible. For many years the regulation system has been working in various countries in Europe. In one country—England—it has been partially adopted by law; elsewhere it is a municipal regulation only. For three years it was tried in St. Louis, and an effort—summarily crushed, however—has been recently made to revive it there. It is at present the subject of parliamentary inquiry in England.

From a review of the evidence so far collected it is impossible to avoid the conclusion that in most places the system is a decided failure, while in England only, under peculiar conditions, it is, to a certain extent, a success. This failure lies in the fact especially that, as a sanitary measure, the "regulations" are miserably inefficient. There is an abundance of statistics pointing to this conclusion.

In Paris all prostitutes are compelled to register themselves as such, and subject themselves to periodical examinations. There is so strong an effort to evade this regulation, that out of the 30,000 prostitutes in that city only about 4,000 are registered. The remainder, as well as all the men who consort with them, thus escape inspection and may disseminate disease. As inspections are made only twice a month, it is evident that there is no great security even among those who are examined. This is shown by the fact that among those examined during the decade ending in 1875, the amount of gonorrhœa and non-specific diseases of the genital organs increased from 43 to 195 per thousand. The number of syphilitic cases increased from 892 to 1,044. The number of venereal cases treated in the hospitals was, in 1867, 6,359; in 1875, 6,568. It is asserted by Dr. Drysdale that the number of venereal cases in the London hospitals is less than in those of Paris. This increase in disease has taken place in spite of particularly stringent efforts to carry out the regulations completely. On the whole, the reports of the Bureau des Mœurs, which has this system in charge, show that only about one-eighth of the prostitutes are reached, that the gonorrhœal diseases are greatly increased and syphilis slightly so, all this in spite of an elaborate and very expensive system of attempted repression. Remem-

bering the infrequency of inspections, it is not difficult to understand this. An inspection twice, or at least once a week, is necessary to secure any tolerable degree of safety. We are unable, therefore, to draw any other conclusion from these facts than the one that has been expressed, and M. Le Cours himself, the Chief of the Bureau des Mœurs, asserts the same opinion. "This state of things," he says, "reveals the existence of a social malady which no mere police measures are able to cope with or destroy. . . . It is impossible by any such measures to make cohabitation with a harlot safe."

It seems to be generally acknowledged that if laws cannot be carried out in Paris they will be sure to fail elsewhere, and an examination of the workings of the regulation system in other cities proves this to be true. The same facts of limited registration and unlimited venereal disease appear among them. Better results, to be sure, are claimed for the British Contagious Diseases Acts, and we are inclined to believe the claim valid. These acts are intended for the protection in particular of the soldiers and sailors, and they apply only to certain garrisoned towns. Concerning them their opponents say that they are unconstitutional; that they do a gross injustice to the woman, and that under them there has been an absolute increase of gonorrhœa, as well as to a less extent of syphilis. This asserted increase of syphilis is not clearly shown, though the decrease, if any, has been small. The increase of gonorrhœa, however, was up to 1878 a fact; during this last year, however, that disease also was, according to the reports, markedly decreased in the army, though not in the navy.

To offset this lack of striking sanitary results, however, it appears that the prostitutes themselves live more comfortable and orderly lives, and greater outward decency is obtained. But even assuming these acts to be just and efficient, it furnishes no argument for a general extension of similar regulations to ordinary cities. The social conditions in these and in small garrisoned towns with 20,000 celibates quartered upon them are immensely different.

In this connection the *Medical and Surgical Reporter*, referring recently to the apparent success and general endorsement of the British Contagious Diseases Acts, lamented the backwardness and timidity of American medical journals in not advocating the adoption of regulation acts with us. We can only say that our esteemed contemporary appears to have been led by an ignorance of the nature and extent of those acts to an unjust criticism of their brethren. Medical journals will advocate regulation when the experience of those who have tried it will justify them in doing so. But at present it does not.

We assert again, therefore, that the regulation system as now applied to ordinary communities fails to prevent the extension of venereal diseases. It is, indeed, absurd to suppose that semi-monthly examinations of one-eighth, or more properly one-sixteenth, of those liable to communicate infection can attain any adequate results.

This fact of sanitary failure is so thoroughly established, that one of two grounds only can be taken in regard to the matter. We must either give up the idea of regulation entirely, or we must seek some new and more efficient method than that now in practice. We have so far failed to learn of any practicable substitute for the present methods. The matter was referred to a committee at the annual meeting of the American Medical Association in 1874, and their appreciation of the difficulty may perhaps be inferred from the fact that they have not yet reported upon it.

We have a word to say, in conclusion, concerning the ethics of the matter. We cannot accept the position that the prostitute has forfeited her natural and legal rights, and that she is not entitled to justice in the laws made concerning her. She sells, to be sure, and that is admitted to be base, while the man buys, and that is considered only foolish; but the offence is the same in both, and the law should not make one only the criminal. Woman's sphere of labor is narrow, her wages pitiably small, and she is paid best for prostituting herself. She is often forced into the trade by very necessity. It is hardly just therefore that the laws should protect man alone.

This fact has often been recognized, and attempts been made to carry out a double inspection. But so far they have been found impracticable.

Out of the fertility of the human mind there may in time come some efficient system of regulating prostitution; at present, however, its future looks as dubious as its past has been unsuccessful.

HAY-FEVER.

At the present time there are probably nearly 50,000 people suffering from what is called hay-fever.

When this affection was first recognized it was supposed that it depended upon the irritation produced by the pollen of certain flowers and grasses which floated in the air in the months of May, June, July, and August of each year.

Subsequently it was claimed that two distinct forms of the disease existed, and to one was given the name of "June cold," while the other received the name "autumnal catarrh."

Further observation revealed the fact that an affection characterized by symptoms essentially the same as those seen in connection with hay-asthma, hay-fever, June cold, rose cold, autumnal catarrh, etc., occurred in seasons of the year in which none of the supposed exciting causes of the hay-fever could operate, and for some time the reasoning was that it must be some other disease than that produced by the pollen of plants. It was also observed that certain persons were peculiarly affected when brought in contact with certain animals, such as the cat, and by the

vapor from certain animal substances, such as warm milk. These observations, and others of like character, have from time to time led to modifications of former opinions regarding the nature of hay-fever, and, at last, have given rise to a theory which has been promulgated as one capable of explaining all the phenomena of the disease whenever and wherever occurring.

In this country two books have been written on hay-fever: one the oldest, and for a long time the only systematic monograph upon the subject—by Dr. Jeffries Wyman, of Boston; the other by Dr. Geo. M. Beard, of New York. In Dr. Beard's book we find the first open announcement of the theory to which we have already referred, namely, the "nerve theory." This theory is the result of the study of one hundred cases, and it is that hay-fever is a neurosis. According to this theory, the disease is subjective instead of objective; external irritants, which are exceedingly numerous, such as rag-weed, pollen, etc., are of a secondary and a tertiary character and powerless in themselves to produce the disease, and produce the disease only when acting on a nervous idiosyncrasy. This author has described a new form of the disease, which he calls the July cold, or middle form, which links the early form, or June cold, with the later form, or autumnal catarrh. It seems to us that the nerve theory explains many of the cases which have heretofore been regarded as very obscure; for example, those in which the symptoms peculiar to hay-fever have continued from May to November, or during the winter months, or all the year round. If the nerve theory be true—and it seems to be fairly sustained—it revolutionizes the treatment of the disease. It must be attacked from a new point of view; yet it cannot be successfully claimed that all cases are to be treated alike, or that any specific can be found for it. The remedies to be employed are those which are not painful—not even disagreeable. Of course, removal from the exciting cause is the primary factor in obtaining prompt relief; but, when this cannot be effected, the symptoms can be greatly relieved, and many cases cured, by such remedies as arsenic, nux vomica, carbolic acid, belladonna, tonics and sedatives, electricity, etc., and their combinations.

IMPROPER USE OF PHYSICIANS' PRESCRIPTIONS.

THE pilfering tendencies of some druggists is an acknowledged fact. Not long since it was made known to us that a druggist claimed that a single prescription made by an eminent surgeon, had, within ten years, been worth to him ten thousand dollars.

If, in any instance, those who pilfer would use all the prescription, no more and no less, it might be an element of safety in the absorbing process; but when the druggist puts on the livery of the "knowing" instrument-maker and insists that he can make valuable improvements upon the original design, then it is that his asinine qualifications loom into view, and the consumer of his nostrum unknowingly runs the risk of being killed or permanently injured.

Not long since a druggist in one of our western cities maltreated a physician's prescription to such an extent that, instead of sending capsules containing sulphate of quinine and Dover's powder, he sent capsules containing cincho-quinine, capsicum, and rhubarb. In this particular case the patient called the physician's attention to the fact that the medicine last obtained at the drug-store seemed to be different from that which had first been taken, and the statement led to the discovery that the deformed prescription had been written by the druggist, and yet it was properly signed by the physician's name. Imagine the physician's surprise; and, being a calm man, he said that if such practice was indulged in to any extent by druggists it would lead to serious trouble. We should hope it would; at least for the druggist.

The attention of our readers has, on former occasions, been called to the reprehensible practice which some druggists have of abridging the prescription of the physician as well as substituting one drug for another that has a similar physical appearance. All these breaches of good faith between the druggist and the doctor should be treated in the most prompt and radical manner known both to the law and to the code of medical common sense.

Reviews and Notices of Books.

QUESTIONS ON FOOD AND CLOTHING, FOR HOME LESSONS AND EXAMINATION. By MRS. W. T. GREENUP.

HERE is a little primer containing 190 questions, divided into nineteen lectures and followed by a supplement containing four additional questions, and a chapter on clothing containing 114 questions, with a supplement containing six questions.

If all the girls in the United States were compelled to study and to labor until they could give a good, clear, practical answer to all these questions—answers based upon a personal ability to demonstrate their truthfulness—what a contribution it would be to the aggregate domestic felicity of our country! For example, the following question meets us, and, in turn, is followed by a wonder as to how many can answer it and then carry the answer into practical effect:

"If mother were from home, and you had to keep house for a week, how would you manage to have a hot dinner every day for father, self, and brother, supposing you had but one joint of meat in the week? Say what you would have on each day of the week." We fear it is more than probable that, in a very large proportion of cases, the answer *now* would be, "Go to the restaurant;" for, according to Bayard Taylor, the word is derived from *res*, a thing, and *taurus*, a bull. Hence, it is a bully thing, and especially so under the circumstances of mother being absent from home. Fortunate, indeed, are the fond fathers whose daughters have doting mothers who can give a practical solution to this apparently formidable question. Yet there are very many who can answer the question

practically, and thus swell the heart of paterfamilias with delight and his stomach with good food.

Food and *clothing* are two corner-stones in the monument to be erected to preventive medicine, and were every mother and daughter throughout the land thoroughly familiar with their healthful preparation, it would be like the long arm of a powerful lever, with which the medical profession could operate in resisting the invasion and spread of disease.

OUR DOMESTIC POISONS; or, the Poisonous Effects of Certain Dyes and Colors used in Domestic Fabrics. By HENRY CARR, M. Inst. C. E. London: William Ridgway, 169 Piccadilly, W. 1879.

THIS writer, in his little monograph of fifty pages, gives his observations regarding the insidious character of *arsenical* poisoning, and states, contrary to a popular opinion, that arsenic is not confined to green color, but enters into the composition of a large number of dyes which are used for coloring wall-paper and dress fabrics. According to this author, arsenic enters into the composition of the aniline colors, and is also used in indigo dyes, where a mineral poison would be least expected. This is an important statement, and if knowledge of the fact could become general, it would probably lead to the removal of this element of danger from a class of dyes which of themselves act as irritants, to say the least, when they come in contact with the skin of some persons.

Cases of chronic arsenical poisoning are cited, and to the pamphlet proper are added letters from medical men and professors of chemistry.

It is a valuable article, because it illustrates the great value of preventive medicine.

COMPLIMENTARY DINNER given to Professor S. D. Gross by his Medical Friends, in Commemoration of his Fifty-first Year in the Profession, April 10, 1879. Philadelphia: Lindsay & Blakiston. 1879.

THIS beautiful monograph contains the preliminary arrangements, the speeches made at the dinner, the letters and telegrams received from gentlemen who were invited, but were not able to be present, the names of the invited guests, and the names of the subscribers. It also contains a most faithful likeness of the eminent professor in whose honor the complimentary dinner was given.

THE BRAIN AND ITS DISEASES. Part I. Syphilis of the Brain and Spinal Cord. By THOMAS STRETCH DOWSE, M.D. New York: G. P. Putnam's Sons. Pp. 144. Illustrated with colored lithographs and photographs. 1879.

THIS is a reprint of an English work which was reviewed in THE RECORD, June 21, 1879. It is elegantly printed and illustrated

A TEXT-BOOK OF PHYSIOLOGY. By J. FULTON, M.D., M.R.C.S., Prof. of Physiology in Trinity Medical College, Toronto, etc. Second Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson. Pp. 416. 1879.

THIS is a well-printed octavo containing 151 illustrations, some of which are duplicates, and almost all of which are old acquaintances. As its title indicates, it is written for the use of students, but only for students preparing for a pass-examination. It has the flavor, not of the laboratory, but of the library. The author has drawn diligently from many sources, and, as a rule, states conclusions categorically and without argument. Considering the size of the book, a noteworthy feature is the prominence given to histology.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, A.M., M.D., Clinical Professor of Dermatology, Starling Medical College, Columbus, Ohio; Member of American Dermatological Association, etc. Parts I. and II. Colored plates taken from life. New York: E. B. Treat, No. 805 Broadway.

IN these parts, which are the first of a series of twelve, we have illustrated comedo, acne vulgaris, lepra tuberosa, elephantiasis, keloid, rosacea, psoriasis nummulata, and ichthyosis simplex. With photographic accuracy these affections of the skin are given, although the reproduction is not made by the photographic process, but by a process from photographic negatives that gives equally accurate results. The skilled artist to whom has been entrusted the work of slight coloring, has done his work very well, and yet it almost seems as though he was a trifle timid on approaching some of the specimens, and hence somewhat hurried with his brush. It is so easy, by means of coloring material, to give false colors, that this part of the work needs to be done with very great care. None but a skilled artist should be entrusted with it; and none but a skilled artist who exercises the greatest care will succeed in giving satisfactory illustrations. The descriptions of the diseases which are illustrated are excellent, and the treatment such as will be of service to the general practitioner. We shall look for the subsequent parts with pleasure, and if the same degree of perfection is exhibited as in those which are before us, both author and artist will have won the compliments of the profession.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Held in the City of Cork, Ireland, August 5th, 6th, 7th, and 8th, 1879.

(Special Report for THE MEDICAL RECORD.)

(Continued from page 187.)

THURSDAY, AUGUST 7TH—THIRD DAY.

THE Association was called to order at 10 A.M. by the President, DR. D. C. O'CONNOR.

REPORT OF MEDICAL REFORM COMMITTEE.

DR. WATERS, Chairman of the Medical Reform Committee, read the annual report, in which, after giving a review of the work of the committee, special reference was made to the effort that had been made to secure a direct representation in Parliament.

On motion by DR. FALCONER, the thanks of the Association were extended to Mr. Arthur Mills, M.P., for his efforts in behalf of the medical profession, and for his able advocacy of the principles of medical reform.

REPORT OF THE COMMITTEE FOR PROMOTING LEGISLATIVE RESTRICTIONS FOR HABITUAL DRUNKARDS.

DR. ALFRED CARPENTER, President of the Council, read the report of the committee, in which the Association was congratulated on the passage of the measure introduced into Parliament, which could be considered the first installment of a more perfect measure. Dr. Carpenter, in moving the adoption of the report, said that in the course of a few months they would be able to provide typical institutions for

ladies and for gentlemen, rich and poor, so that cases could be treated and restored, and so that persons addicted to this vice might become useful members of society.

The report was unanimously adopted.

SCIENTIFIC GRANTS COMMITTEE.

The report of the Scientific Grants Committee showed that £120 had been appropriated for researches with the view of testing the application of antiseptic surgery in cases of lesion of the skull, brain, and its membranes; on the function of the kidney, and on the physical conditions which regulate the flow of urine; an investigation into the anatomical characters of certain diseases of the skin allied to tubercular, scrofulous, lupoid, and syphilitic affections; and investigations on anæsthetics.

ADDRESS IN SURGERY.

Mr. William S. Savory, F.R.S., lecturer and surgeon in St. Bartholomew's Hospital, then delivered his address on

THE PREVENTION OF BLOOD POISONING IN THE PRACTICE OF SURGERY.

He said that blood-poisoning was undoubtedly the chief evil which waited upon the surgeon's work. It hovered over every operation; it was not yet a thing of the past, but much had of late been done to avert its evil effects. No one could tell how many lives were in former times sacrificed by blood-poisoning in its comprehensive sense, for, the nature of the mischief being unknown, it was in those times set down to various causes. He used the word "blood-poisoning" in its comprehensive sense to express the sum of the efforts produced by the introduction into the blood of matter charged by the action of septic poison. By septic poison he meant matter capable of producing or promoting putrefaction. There was a confusion in the current use of the phrase antiseptic surgery. That should mean the principle which arrived at the securing of healthy wounds, and those then repaired as speedily as possible by the most scrupulous cleanliness, not only in the common, but in the surgical sense. Thus understood, antiseptic surgery ought to be simply equivalent to good surgery. But antiseptic surgery, as commonly understood, implied the liberal employment in practice of special agents known as antiseptics, and in that sense again all surgeons now practised it. Finally, the term was now most commonly used to explain what was more precisely known as Lister's method of dressing wounds. Dr. Savory read a table which he had prepared, showing the statistics of blood-poisoning after operations in St. Bartholomew's Hospital for three years. From that it appeared that after 1,235 operations, the number of deaths from blood-poisoning was eighteen. The best results had been obtained by the simplest means. They aimed at the most scrupulous cleanliness. They watched very carefully the actual state of the wounds, and they used antiseptics of various kinds very freely. With cleanliness they attached the highest importance to rest. They disturbed wounds as little as possible during the process of repair; they were most jealous of the state of the atmosphere of the wards; ventilation was only effected by open windows and large chimneys. They avoided carefully any tendency to overcrowding of cases of wounds in the same ward, and each patient had from 1,100 to 1,400 cubic feet of space. They attached the greatest importance to the state of the health and the general condition of the patient before operation; and they never, when they had choice and opportunity, performed an operation without previous inquiry in that direction. Dr. Savory condemned the use of drainage-tubes in wounds unless in exceptional cases. It should always be remembered that they were foreign bodies in a wound. They irritated and provoked suppuration and formation of fluids. That wounds did at length close in spite of this treatment he was well aware; but they would all heal more quickly and kindly without disturbance if they were simply closed in a way which he explained. He spoke highly of the value of common bread poultices, carefully made and renewed at proper intervals of time. With regard to Lister's plan, which arrived at excluding blood-poisoning by the rigid exclusion of living germs, judging the plan by facts actually ascertained, there were, he said, no trustworthy statistics to show that the results obtained under Lister's method was much in advance of those obtained by other methods.

At the conclusion of the address, Dr. W. K. Tanner offered the following resolution:

"*Resolved*, That the best thanks of this Association are due, and are hereby tendered to Dr. W. S. Savory, F.R.S., for his able and interesting address in surgery."

Mr. Reginald Harrison seconded the resolution, and said that he thought the association was much indebted to Dr. Savory for his outspoken criticism upon subjects of such vital importance. He had not shortened the subject he had undertaken to put before them; he had fearlessly and ably criticised a matter which was now occupying, and had occupied for some years past, the attention of the surgical and medical professions. He did not care to venture on any further observations, but would like to remark, that, as an old pupil of Dr. Savory's, he felt very considerable pleasure in seconding the resolution which had been proposed by Dr. Tanner.

The resolution was then put from the chair and carried with acclamation.

SURGEON-MAJOR REYNOLDS.

Dr. Carpenter, President of the Council, then presented Surgeon-Major Reynolds with the gold medal of the British Medical Association, for distinguished merit in performing professional service in Zululand, South Africa, Jan. 22 and 23, 1879, and caring for the wounded under fire. Surgeon-General Crawford responded in behalf of Surgeon-Major Reynolds, after which the Association adjourned, to meet on Friday at 10 A.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 25, 1879.

Dr. E. L. Keyes, President, in the Chair.

(Concluded from page 188.)

CARCINOMATOUS STRICTURE OF THE ŒSOPHAGUS.

Dr. Robert Newman presented a specimen removed from the body of a gentleman who died in consequence of carcinoma of the œsophagus. The œsophagus was adherent to the spinal column. On opening the stomach there was evidently extension of the disease to the pylorus. All the other organs were apparently healthy. The interest in the case was the almost entire absence of symptoms. He had no pain at any time; there was no blood in the regurgitations, except occasionally at the latter part of a severe one, when slight streaks of blood were seen. The

entire duration of the case was about eight months, and the following is the history:

Mr. A. M., æt. 72 years, came under observation with dyspeptic symptoms on February 7, 1879, with the following history: He had a regular yearly attack of hay-fever in August, but had otherwise always enjoyed excellent health; last November (1878) had suddenly an attack of hiccough, which was followed by some indigestion. He lost his appetite; gas accumulated in the intestines, and the food regurgitated. After this attack he felt better, but at times had dyspeptic symptoms, with acidity of stomach and some constipation. He has excellent normal teeth; eats slowly, and chews well, which proves that his ailment is not the consequence of insufficient mastication. Within the last month has lost flesh.

February 7th.—On examination no tumor is found; all the organs in the abdominal cavity appear healthy; no pain or even soreness is present. Deglutition is not impaired. On auscultation of œsophagus nothing abnormal is found. Has no distress after meals. All he complains of is flatulence, sometimes acidity, and occasionally a regurgitation of solid food. For this reason he avoids solid articles. The tongue is a little furred. Cancer was suspected, but no certain diagnosis made, on account of the symptoms not being distinct enough. During the month of February the treatment with various medicines had no positive results, the patient changing for better and worse alternately. He took his meals with appetite, but all he ate was not sufficient to keep up his normal weight; on the contrary, he lost flesh and felt weak.

March 1st. In addition to his meals, rectal alimentation was added, principally with Leube's beef solution, prepared by F. Hoffman.

In consultation with Dr. A. Flint, a positive diagnosis of carcinoma was made, notwithstanding that no tumor could be felt.

From end of March until death he failed gradually. At times he had good appetite, and enjoyed different kinds of solid food; at others he could not swallow anything, everything regurgitated. Most of the time his diet consisted of stimulants, milk, essence of beef, milk-punch, champagne, oatmeal, and three to four rectal alimentations daily, with Leube's solution. The last has done excellent service, and it may fairly be said, kept him alive two months beyond his natural lifetime. He felt comparatively comfortable, never had any pain, but nevertheless was failing. He was sitting up in his chair until sixteen hours before his death, which occurred, June 23d, from asthenia.

The post-mortem was made twenty-four hours after death, with the kind assistance of Dr. A. M. Jacobus.

Dr. Jacobus made a microscopical examination, and gave the following report:

Upon examining a teased, fresh specimen of the growth, removed from the œsophagus and stomach of Mr. ——, this morning, I find all the usual varieties of large cells—*i. e.*, round, oval, fusiform, caudate, polygonal, etc.—which abound in a hard cancer. Many of the cells contain molecules of fat, and are undergoing retrogressive changes. Though the specimen is a teased one, there can be seen alveoli surrounded by an extensive fibroid stroma, each alveolus containing cells as above mentioned. There are also some larger or epithelial cells. Upon these facts, as well as the general appearance and chronicity of the growth, I base my diagnosis, and believe it to be a scirrhus œsophagi. Respectfully,

DR. A. M. JACOBUS.

ANOMALIES OF SPERMATOZOIDS.

DR. C. HEITZMANN directed attention to the following facts, which he had observed in examining specimens of urine. In one case urine was brought from a man who, in consequence of long-continued loss of sperm through unsexual intercourse with a woman, became impotent, and suffered from spermatorrhœa. The urine contained a large amount of spermatozoids, which, instead of having the oblong, broad head, and beneath this the two lateral thickenings (the latter being a common occurrence on human spermatozoids), exhibited a thin head, surpassing the tail in width very little only. The motion of the tail is evidently due to contraction of the living matter, which builds up the head in the shape of a reticulum, and is connected with the tail, like as the cilia are in ciliated epithelia. In the case under consideration, motion of the tails was completely absent, though the urine was freshly passed. The case would indicate a local exhaustion of living matter in the testicles, produced by long-continued over-production.

In a second case the urine contained a large amount of pus-corpuscles and spermatozoids. The latter could be traced in all stages of transition into pus-corpuscles. There were spermatozoids with both moderately and much enlarged heads, and pus-corpuscles with single tails — motionless—fully corresponding in size to those of spermatozoids. Not infrequently two pus-corpuscles were connected by means of a single tail, and in the midst of the tail there was present a larger granule of living matter. The question, whether a mere immigration or a real transformation of spermatozoids into pus-corpuscles had taken place, could be satisfactorily settled in favor of the latter occurrence. The disease, although the patient had been examined repeatedly by surgeons both abroad in this country, never was recognized until a single, thorough microscopic examination allowed the diagnosis: suppuration of, or new-growth (perhaps polypus) in one of the spermatic vesicles. This diagnosis was afterward fully corroborated by the attending surgeon, Dr. L. Weber.

DR. HOWE asked Dr. Heitzmann if he believed the movement of the spermatozoid due to contraction of the reticulated structure which he had described as existing in the head.

DR. HEITZMANN replied that he did.

DR. HOWE asked why the contractions did not produce changes in the shape of the head, the same as they produced changes in the shape of the white blood-corpuscle.

DR. HEITZMANN replied that change in shape did not necessarily follow, because the living matter at the same time had given to the head a firm covering, which prevented it from changing its shape. It was like the nucleus generally, which did not change its shape, although the matter in the cell-body was constantly modifying the external outline of the cell. The white blood-corpuscle changed its shape because its cell-membrane was so exceedingly thin.

DR. J. C. PETERS remarked that Cohnheim and others recognized change in the form of the nucleus.

DR. KEYES remarked that, while he did not question the observation of transformation of spermatozoids into pus-corpuscles, he regarded it as a peculiar degeneration of the testicle that was accompanied by sweating of pus through the *vas deferens*.

DR. HEITZMANN remarked that the spermatozoa, as usually seen, had no such shape as those which he had described. In the testicle their form was very much different. There they were simply compact

formations—large granules with a relatively indefinite tail. The mature condition of the bodies we did not see, except in the seminal vesicles.

Dr. Keyes remarked that he regarded it as *prima facie* evidence that a patient had disease of the seminal vesicles when a gelatinous mass of material, having pus-corpuscles entangled in its meshes, was expelled from the urethra. Those cases usually were not diagnosticated. His method of examination in a suspected case was to have the patient urinate; then introduce the finger into the rectum, and press upon the vesicles from behind forward, and then have the patient urinate again, and catch the first tablespoonful discharged. In that manner he had been able to obtain spermatozoa with pus-corpuscles, when otherwise such evidence was lost.

TAPE-WORM.

Dr. E. H. M. Sell presented a specimen of tape-worm that had been removed by the following plan of treatment:

℞. Pumpkin seeds	ʒ xx.
Sugar	grs. cc.
Etherial ext. of malefern	ʒ ij.
Decoction of pomegranate root	℥ x.

M.

Ten grains of calomel were administered, after which the patient fasted for twenty-four hours, taking nothing except slippery-elm tea. One-half of the above mixture was then given in four equal doses, at intervals of fifteen minutes, and, if it did not produce catharsis within two hours, prompt purgation was produced by either castor oil or rochelle salts. By that plan he had never failed to remove the parasite. The second dose was to be given in case the first was rejected.

The Society then adjourned.

Stated Meeting, June 11, 1879.

Dr. J. W. Howe, Vice-President, in the Chair.

INFANTILE UTERUS.

Dr. Heineman presented an undeveloped uterus removed from the body of a girl, æt. 17 years, who was otherwise well developed, with the exception of entire absence of mammary glands and hair on the mons veneris, and who died in consequence of an injury. The woman had evidently menstruated, because a recent corpus luteum was found, and fully developed Graafian follicles.

INDENTATION OF THE ILEUM, WITH DESTRUCTION OF THE PERITONEAL AND MUCOUS COATS.

Dr. Heineman presented a second specimen by favor of Dr. Erskine Mason.

Henry Damm, 45; Germany; widower; cooper; entered Roosevelt Hospital June 1, 1879. Has had a small oblique, inguinal, reducible hernia for twelve years. Two months ago Wood's operation for radical cure was performed. Had no subsequent trouble with the hernia until three days ago, when it again entered the sac, and since has been irreducible.

The following morning he began to suffer from pain in abdomen, which has continued with increasing severity. Vomiting frequent, but not stercoraceous. Bowels moved freely yesterday. No urine passed for last twelve or twenty-four hours.

On examination, a small globular tumor as large as an orange, was found occupying right side of scrotum above the testicle; tumor was dull, almost flat on percussion, very tense and distinctly fluctuating. He complained of severe pain in abdomen, which was slightly tympanitic, and very sensitive to pressure.

Operation by Dr. Mason. Taxis failing, the sac was opened, a narrow constricting band found in the body of the sac situated half an inch below external abdominal ring, which was divided, and a small knuckle of healthy appearing intestine readily reduced.

June 2d.—Pain; tympanitis increasing; respiration 32.

June 3d.—Dyspnœa; abdomen sensitive to pressure; pulse feeble, rapid, 160; patient sinking.

June 3d.—Patient died at 4.30 A.M.

Autopsy, June 3, 1879.—Brain not examined.

Heart: Slight thickening of aortic and mitral valves.

Lungs: Old adhesions, well marked congestion of lower lobes of both lungs; emphysema and chronic bronchitis.

Spleen and kidneys normal.

Moderate amount of turbid serum in peritoneal cavity, with fibrin and pus coating the peritoneum everywhere, but most abundant between liver and diaphragm.

Intestines: Stomach and intestines distended with gas; peritoneal surface congested, and coated with fibrin and pus. Near termination of small intestine a portion of ileum was found with thickened peritoneal surface, the seat of old and repeated attacks of inflammation. A knuckle of ileum about eight inches from ileo-cæcal valve had been recently incarcerated and strangulated in hernial sac. This was not gangrenous, had been wholly replaced in peritoneal cavity, and was slightly adherent to the edges of the sac by recent adhesions.

The cavity of the sac was narrow, but pervious down to its end in the scrotum. The strangulated portion of ileum presented a well-marked indentation on both peritoneal and mucous surfaces.

Dr. Heineman remarked that the two points of interest in the specimen were: *first*, the condition of the hernial sac of Wood's operation; and *second*, the condition of the intestine with its indentation, and destruction of peritoneal and mucous coats. How was destruction of the internal and external coats of the intestine at the same time to be explained?

Dr. Lange remarked that while peritonitis was doubtless the cause of death in this case, there were many cases in which death occurred after herniotomy, because of reflex paralysis of the heart produced by tympanitis. In such cases there was *no* high temperature, but rapid small pulse and rapid respiration.

Dr. Lange then referred to a case in which those symptoms were present, and the life of the patient was saved by puncturing the intestines and allowing the gas to escape.

Dr. Howe thought the indentations in the intestine could be explained by the fact that stricture having lasted for some time, ulceration of the mucous surface occurred as a necessary consequence.

Dr. Heineman thought that Dr. Howe's theory did not explain the indentation in the peritoneal coat of the intestine.

Dr. Erskine Mason remarked that, so far as he knew, this was the first case in which strangulation of the gut had occurred after Wood's radical operation for the cure of hernia. He had seen strangulation occurring after other methods of operating.

In the present case the patient was operated upon for radical cure about three months ago, and there was no return of the hernia until three days before strangulation occurred. Probably the operator regarded the operation as a perfect success; but the final result showed that in all operations for the radi-

cal cure of hernia there was danger that the sac might not be entirely obliterated—simply a partial obliteration. If that was true, the patient was left in a more dangerous condition than he was in previous to the operation, providing he did not wear a truss. Here was a sac which was constricted at a point from one-half to an inch below the external ring, and the constriction was of the same form as that which occurred in patients who had worn a truss for a long time.

Three days after operating upon the patient from whose body the specimen presented was taken, he was called to operate upon another man who had worn a truss for twenty-five years, and the constriction was in precisely the same locality, and the sac was in a precisely similar condition. In one case the constriction was made by Wood's method, and in the other by the pressure of the truss.

OSTEO-MYELITIS OF THE HUMERUS—EXSECTION.

Dr. Lange presented a patient who, last September, was attacked with osteo-myelitis affecting the upper part of the right humerus. At the same time the region of the left hip became painful and swollen; but in that place the disease resolved. In the humerus the disease progressed, and the patient had high fever for several months.

Dr. Lange saw her about five weeks after the beginning of the difficulty, when several incisions had been made and the shoulder-joint was in a condition of suppuration. For three months altogether the patient was confined to her bed, became emaciated and feeble, and several weeks were required to get her into a condition proper for an operation.

The operation, when performed, consisted of excision of the entire articular surfaces of the shoulder-joint, and at the same time necrotomy. It was done bloodlessly and antiseptically. He was surprised not to find a large sequestrum, and only a superficial one near the insertion of the deltoid muscle. The head of the humerus was fastened in the glenoid cavity by bony growth, so firm that he was obliged to use a chisel and hammer to remove it. The operation was not followed by fever, and two weeks after, the patient left her bed. The wound healed entirely by first intention, except where a drainage-tube was introduced, and then discharged only a small quantity of watery fluid. The operation was performed six weeks ago, and passive motion had been commenced, aided by galvanism. The formation of a new head of the humerus was apparently very good; and perhaps the good result was in consequence of preservation of the upper part of the tubercles of the bone and the insertion of muscles.

The interesting points in the specimen of bone removed were, that the epiphyseal cartilage was entirely destroyed, except at *two* places; the cancellous tissue had large spaces in it; the medullary canal was enlarged opposite the epiphyseal line. There was rarefying ostitis, and at the same time ossifying periostitis. The medullary canal was filled by firm, dense, fibrous tissue, which sent tender processes into the spaces in the cancellous tissue. In the central parts were yellowish spots which looked like pus; but *no* pus was present, and only large fat-cells, together with large cells filled with fatty corpuscles—giant-cells—together with blood-vessels.

In this connection Dr. Lange referred to a case in which, by microscopic examination, micrococci and bacteria were found in the pus in such abscess without external opening. The pus for examination was obtained by means of a needle.

(To be continued.)

Correspondence.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

I.

There are some physicians who believe that the Code of Ethics was made solely for the benefit of the older members of the profession who have secured a position. I used to think so when I was younger. Now, I believe that the next thing to looking after your own interests and seeing that you have a fair show in the race for professional success is to stand up for medical ethics through thick and thin. Without shocking any personal modesty, I may say that I have followed out this principle with a good result. There is such a thing as being charitable to your brother, and if you can only show that charity to advantage before a third person, you are quite sure to benefit yourself, especially if the third person is in need of medical advice. But all the while you must keep a single eye to the glory of the Code, and recollect that he who plays with fire must have a long reach. As I said before, I never lose any opportunity of speaking well of a professional brother when I am accidentally called to see his case. To this, in fact, I owe most of my success in practice; for not only will his patients force themselves upon me, but he will call me in consultation to others. As there are not a few who would like to know how this is done, I may perhaps flatter myself that a little detail of personal experience may not be uninteresting. By way of premising, let me say that I am particular to cultivate younger men and help them along in practice as well as I can. To illustrate this particular point, I will refer to an instance or two that occurred in the earlier practice of Pine Ridge, which showed the benefits of my magnanimous spirit.

One morning, in driving through the village, I noticed the bright new sign of Dr. White. I smiled an inward satisfaction, and resolved to be his friend. At once concluding that I had more business than I needed, and that there was plenty of room for the new man, I resolved to call on him and welcome him to the town. This was done, and, to my surprise, he stated that he had not been led to expect such courtesy. The evening passed pleasantly, and, notwithstanding we were interrupted by my servant with fifteen calls for me, to which I must attend before retiring, the festivities were kept up until a late hour. As I left him I just happened to think of my patients, when he pitied me and charitably wished himself in my place. His young and innocent smile appealed to my heart, and soon after, when dropping to sleep on my couch, and thinking of his surprise at my fifteen extra patients, I resolved to be his friend. As he was working principally for a reputation, I commenced my good deeds by recommending to him such chronic cases as I did not want, and who could not pay. I introduced the first patient by note, and received a gracious and appreciative reply, which hangs, duly framed, in my office. But this is by the way.

I dropped in every now and then to see him, and he being always in, I seldom lost the opportunity for a quiet and confidential talk. He was well prepared to practise, having studied two full years and attended in that time four courses of lectures, received two prize medals and a certificate for a month's attendance on a post-graduate course. My soul warmed at the op-

portunities I should have of recommending him accordingly to some of the good-paying patients I should send him. It may be well to state here that, at the outset of my acquaintance with him, I made him a present of a copy of the Code and secured his membership to our county society, thus ensuring his professional standing. Need I say that, with all these advantages, the young man succeeded? He did. Is it a wonder that I should be gratified? Hardly. And could I be blamed for giving him help when he did succeed? But I proceed with my illustrations, and as details of cases are sometimes more instructive than generalities, I make no apology for introducing one or two here.

One summer afternoon I was driving past Smith's, and was asked by Mrs. Smith to look at her son Harry. Notwithstanding I was in a great hurry, and had to visit thirty patients before supper, I consented to see the patient. I at once told the mother that the child was very sick; that it had evidently been left too long without proper treatment, and chided her for neglecting to send for me before. When she informed me that Dr. White was attending the case, I at once became mortified at my indiscretion, and, for a time, could not see my way clear to vindicate my brother's good name and uphold professional honor. Of course, I at once backed down, and openly confessed that I did not know that Dr. W. was in attendance; that he was a good fellow, a friend of mine; that I was sorry I had said anything against him; that he was probably right—at least, I hoped so; that it was against our Code of Ethics to criticise each other's treatment, to destroy the confidence of our patients, or in any way strive to replace each other. The child vomited at this time, and I arose to retire, declining to have anything to do with the case until Dr. White should be sent for. The appeals of the mother brought me back, and I held the child's head. At the same time I whispered words of kindness in his ear. I informed the mother if it were my case I should have the child seen to at once, and urged her to send for Dr. White. I found a good opportunity to say to her that Dr. White, although a very young man, with but little experience, was remarkably apt; that although he was brought up as a carpenter, he had learned the science of medicine in two years, and that such enterprising men should be encouraged. Politely declining to have anything more to do with the case, I gracefully retired, promising to stop myself and send Dr. White around. I did so, telling him what good service I had done him, and how necessary it was in all our relations to prevent ill-feeling and jealousy by sticking to the Code and acting squarely with each other. I heard no more of the case until that evening, when I was summoned to meet Dr. White in consultation. I informed the father who summoned me that I was very much pressed for time, but that I would, nevertheless, do all I could to help my friend White.

Having arrived at the house, Dr. W. examined the patient first, but quickly yielded to me. Anticipating that the case would be a difficult one for diagnosis, I had brought all my instruments of precision with me. Unfortunately Dr. White had none of these, but I believed it to be my duty to give the patient every chance. I examined the eye with the ophthalmoscope and demonstrated to Dr. W. and the father of the child the commencement of a choked disc. Dr. W. had never seen such a thing before, and he was honest enough to say so before the family. The ear speculum showed a slight opacity of the tympanum due to thickening around the malleus and slight œdema over the site of the tensor tympani muscle. The laryngoscope disclosed patches behind the uvula and a slight paralysis of the right vocal cord. The cephalic temperature was slightly increased ($\frac{1}{20}$ of a degree) over the right or affected eye. A slight aortic murmur, a crepitant râle, at the base of the lung proved the value of a stethoscopic examination. The liver was normal, but, on account of the relaxation of the umbilical ligament, hung a little low. Thermometer in the rectum marked 101° F. Urine collected to be afterward examined. Tested on the spot by a urinometer, much to the satisfaction of the father, who was pleased with the delicate action of the instrument.

The rectum being examined, some ascares vermiculares were found, indicating a faulty nutrition of that point. The worms were slightly asphyxiated. Unfortunately, Dr. White had not examined this part of the body, a fact for which he was quietly blamed by the mother, who said from the first she "thought it was worms." I politely informed her that the doctor had done everything that was really required, and that my examinations were necessary only for the sake of clearing up any doubtful points. In fact, it was only called for on the ground that experience had taught me that it was best to be on the safe side. The child having some diarrhœa, I asked to see the passages, remarking casually that now we should have a clue to the whole trouble. The mother had not saved the passages. Unfortunately for me, before I thought, I asked the doctor what was their character, and he was forced to reply that he had not examined them. Determined to shield the doctor, I changed the subject by remarking that after all it might not have been of any importance, only I should like to have seen them for my own satisfaction—a matter so purely selfish that I was forced to smile as I referred to it. I forgot to mention that the prepuce of the child was slightly elongated; that he had a strong liking for sugar and peanuts; and was occasionally peevish when crossed.

While I was washing my hands the father was examining my instruments and asking the doctor all sorts of questions as to their use. I confess I was somewhat surprised at the latter's ignorance, and made an excuse to give the necessary explanations. This was done more to turn the subject of conversation than for any desire to satisfy the inquisitive parent.

After tucking Harry under the chin and bidding good evening to the parents I retired with the doctor for formal consultation. We agreed that it was a simple case of intestinal irritation, and I suggested a change from rhubarb and soda to chalk mixture well sweetened and highly flavored. But, said Dr. W., "How about the choked disc?" I replied that such, as well as the aortic murmur and increased cephalic temperature, was due to a slight congestion of the pons varolii which was reflected through the vasomotor system of those parts. He was satisfied, and thought it best to give such a diagnosis to the mother. I agreed, but he became confused in his explanations and I had to help him out. While Dr. W. was in with the child prescribing the new medicine, I started to go, when the father waylaid me in the hall asking all sorts of questions about the case. I informed him that the child would probably get better now; that Dr. W., who although young was willing to learn, had agreed to change the medicine, and that if he was careful in studying the new symptoms he would not need any further assistance. While doing this I impressed upon him the fact that I was a great friend

to Dr. W.; that he was an exceedingly apt scholar, and, for his opportunities, he was the safest doctor of his age that I knew. Just then the doctor came out of the room, and I kindly put my arm in his, we walked out together, and I confidentially informed him that although his position was a little shaky in that family, I had done my best in accordance with the Code to hold up his hands and say what I could for him as a professional brother. He thanked me, and we parted on the corner.

When I arrived at my office the father of the child was waiting for me. He requested me to see the patient again that night. The child had vomited since the visit, and the parent did not believe that Dr. W. understood the case. In fact he desired me to attend it henceforth. This at first I flatly refused to do, but how I managed it afterward, to the satisfaction of all hands, will be seen in my next. * * *

PINE RIDGE ON THE HUDSON.

SYPHILITIC PERIOSTITIS OF THE CRANIUM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The following case occurred during the past winter, and was treated in the wards of the U. S. Hospital at Jefferson Barracks, Mo., by Surg. E. P. Vallum, U.S.A. The subjoined is a synopsis of the history, symptoms, and treatment:

Select recruit W—— presented himself at "sick-call" on the 23d of Jan., 1879, and requested that something should be done to relieve him of a sharp, lancinating pain, which began above the left eye and extended backwards in the course of the temporal ridge. There was an absence of swelling, and but slight tenderness on pressure could be detected. This being his first attack, and several cases with like symptoms and of malarial origin having been previously treated successfully with large doses of quinine, and hypodermics of morphia at the seat of suffering, he was put on a similar line of treatment. This, however, did not bring about the results which had been anticipated, and on Jan. 26th he was admitted into the hospital, the pain still continuing with unmitigated severity. The hypodermics afforded only temporary relief, and the quinine had apparently no effect in promoting a cure. The pain, which was at first sharp and neuralgic, was now also at times dull and gnawing. In addition, a swelling had shown itself over the affected area, the left temporal region being much fuller than the corresponding surface on the opposite side. The swelling was but slightly tender, and was firm and hard to the touch. The left eye was perfectly normal in appearance and in function. The treatment for several days after admission remained unchanged, except that small blisters were applied to the tumefied surface, which was afterwards dressed with simple cerate and morphia. No improvement followed, and ferri et quiniæ citrat. was substituted for the quinine, the hypodermics and blisters being kept up. This course of treatment was pursued till Feb. 9th, without influencing the malady in the slightest degree. The pain was fully as agonizing as at first, and was continuous, with paroxysms of great severity in the latter part of the night and in the early morning hours. Much sleep had been lost, and the general health was beginning to suffer, despite the employment of the tonics mentioned, and the allowance of a generous diet. A careful inquiry was now made to learn something of the previous health of the patient, and it was ascertained that he had suffered from primary syphilis *ten years* before; but, as no constitutional symptoms had ever shown themselves, he had always considered himself perfectly cured of this trouble. He at that time resided in New York City, and was attended by two physicians—one of them a distinguished author and authority on venereal diseases—both of whom pronounced the initial sore a "chancroid." Suppurating buboes followed in both groins, though efforts were made to abort them with iodine and blisters. A purely local treatment was adopted throughout, and an apparent cure resulted in a couple of months. After obtaining the foregoing history, our patient was put on a specific treatment, consisting of hydrarg. proto-iodid., and pot. iodid., in alternation. The ferri et quin. citrat. and the blisters were continued, the abraded surface of the swelling being dressed with ung. hydrarg. Immediate improvement was noticed, and no change in the treatment was made from that date (Feb. 9th) till his discharge from the hospital "cured" on March 22d. All pain and tumefaction were now gone, and the general vigor of the body was almost restored, the patient remarking that he felt "perfectly well." An examination instituted to determine whether or not any evidence of syphilis existed in the bones or viscera, gave negative results. No nodosities were discovered in the clavicles, sternum, or tibiæ; and the glands behind the elbow and the neck exhibited no appreciable enlargement. Eruptions on the skin and sore throat had never occurred, and iritis and alopecia had not at any time been experienced. Still, despite these facts, I think that the syphilitic nature of the affection was satisfactorily made out; and though ten years had elapsed since the occurrence of the primary sore, I feel quite confident that the relation between it and the recent outbreak was that of "cause and effect." Finally, when we remember that it was a "chancroid," which many syphilographers say never produces secondary or tertiary manifestations, but which evidently in this case was the remote but potent factor in causing systemic infection, we look upon the case with increased interest, and consider it of sufficient rarity to merit this report.

I am, very respectfully, etc.,

JOHN J. KANE,
Asst. Surgeon U. S. Army.

NOTES ON A CASE OF EPILEPSY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—S. P.——, colored girl, age twelve, well-grown and robust, native of Virginia, and raised on a farm in a section where epilepsy is rather frequent. Epileptic paroxysms commenced at the age of eight, at the rate of one in two weeks, generally at night; gradually increasing in frequency until April 1st, when they averaged four per day. At that time there was a very free flow of saliva and considerable mental dulness; both had commenced and gradually increased with the paroxysms. In other respects there was nothing to note, the patient "enjoying good health." In this case the "aura" was well marked, and by grasping the arm tightly the seizure could be checked.

The case had been under the charge of two prominent country practitioners and had received the usual treatment, especially that of bromide of potassium, with no favorable result, and had been given up as hopeless, as "she had experienced more than five hundred seizures."

I concluded to make trial of bromide of potassium

in combination with hydrate of chloral, using just enough of the hydrate to strengthen and cause the bromide to act promptly. I had used this combination with excellent results in cases of wakefulness where the bromide had ceased to act.

April 1st the patient commenced taking the following:

℞. Bromide of potassium..... ʒ iij.
Hydrate of chloral..... ʒ iij.
Water .....f ʒ vij.
M.

S. Half-teaspoonful on rising and retiring, the dose to be doubled at the end of first week.

Up to July 1st the patient had experienced only three paroxysms, two of these occurring in the first week after commencing the treatment. At that date the mind was much improved and the flow of saliva had decreased to near normal, while in other respects the patient was in excellent health.

Such a favorable result is remarkable, and I make the report at this early date in order to draw out others who may have used the combination, or else induce others to make trial of it. I would like to hear of its trial in cases of the petit mal.

Very respectfully,
J. A. TANNER, JR., M.D., U.S.A.

HARRISON SQUARE, BOSTON, MASS.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 17 to August 23, 1879.

PERIN GLOVER, Lieut.-Colonel and Surgeon, Medical Director of the Department. Granted leave of absence for one month on surgeon's certificate of disability. S. O. 160, Dept. of the Missouri, August 20, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 23, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 16, 1879.	0	18	37	4	28	14	5	0
Aug. 23, 1879.	4	12	34	6	26	10	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from August 19th to August 26th, inclusive, was 203, and the number of deaths that occurred was 59. The total number of cases for this year to August 27th is 778, and the total number of deaths 217.

PRIZE ESSAY ON DIPHTHERIA.—Her Majesty, the German Empress and Queen of Prussia, offers a prize of 2,000 reichmarks ($480) for the best essay on "the essence of diphtheria and the results of treatment of the disease based upon knowledge of the nature of the affection." The prize will be given only for such work as contains important new facts regarding the essence of the disease, but particularly concerning its mode of propagation and the prevention of the same. The essay may be written in German, French, or English, and must be forwarded to B. von Langenbeck, Professor, Berlin, N. W., 3 Roonstrasse, before the first of December, 1880. The prize will be awarded at the first meeting of the German Surgical Congress in April, 1881. Each essay must be marked with a motto, and the same motto must be placed upon an accompanying envelope that contains the author's name.

The committee consists of Professors Klebs, of Prague; Liebreich, of Berlin; von Nägeli and Oertel, of Munich; Thiersch, of Leipsig; Virchow, of Berlin, and von Langenbeck, of Berlin.

ROUTINE USE OF THE OPHTHALMOSCOPE IN CEREBRAL DISEASE.—Dr. J. Hughlings-Jackson asserts in the *Medical Press and Circular* that there is nothing in medical ophthalmology more important than the fact that a patient who has acute neuritis can read the smallest type and may not know that his sight is in any way defective. This claim he has made for several years, and now presents many authorities to support it. As a consequence of the fact, he urges the necessity of a routine use of the ophthalmoscope, lest the disease be overlooked in its early stage, and we lose an important help in diagnosing other pathological changes.

A NOVEL METHOD OF CONTROLLING HEMORRHAGE IN AMPUTATIONS OF THE HIP has been introduced by Mr. Davy, of London. It is done by means of a wooden lever about two feet long, measuring an inch in diameter at either end for six inches of the length, and being only four-fifths of an inch in diameter for the remainder. It is turned perfectly smooth, the ends being well rounded. It is introduced into the patient's rectum sufficiently far for the end to rest in the hollow opposite the sacro-iliac synchondrosis, between the psoas muscle and the base of the sacrum, where it is made to rest on the common iliac artery, controlling the blood perfectly. It has been used successfully four or five times.—*Chicago Med. Journ. and Examiner.*

INFLUENCE OF MARRIAGE UPON HEALTH AND MORALITY.—Dr. Bertillon, a French savant, has published some very interesting statistics in regard to the influence of marriage upon the human race. He has studied the mortality bills of every country in Europe, so that his figures are more exhaustive and his conclusions more striking than any previously published.

He finds that "a bachelor of twenty-five is not a better life than a married man of forty-five; that among widowers of from twenty-five to thirty the rate of mortality is as great as among married men of from fifty-five to sixty." In other words, celibacy ages a young man at least twenty years, and widowhood still more. In France the rate of mortality among married men, between twenty and twenty-five years of age, is ten per thousand, and among bachelors of that age sixteen per thousand, and among widowers nineteen per thousand.

In regard to criminal acts, these occur about 50 per cent. oftener among bachelors than married men, and 25 per cent. oftener among spinsters than married women. Suicide is also much less frequent among the married. In fact, all the statistics show very conclusively that the married state promotes health, long life, and morality.—*Lancet.*

DIPSOMANIA AND DRUNKENNESS.—Dipsomania is a disease of the nervous system, akin to epilepsy and

insanity. It implies a degeneracy of the intellect; hereditary influence has a large share in its production; in it there is generally a complete abolition of the moral sense, as shown by lack of shame, unrestrained licentiousness, deceitfulness and broken promises; it occurs sometimes as an acute disease, it often appears in periodical attacks like epilepsy, but it most frequently exists in a chronic form. It occurs oftenest amongst the higher classes, and champagne is of all drinks the most active as a cause; and drunkards, on the other hand, are persons who when they drink do so to a complete state of intoxication, but when they recover, are wretchedly ill and quite conscious of their moral wrong. They yield rather to external temptations than to internal cravings. They generally come from the lower classes.

In treatment the above distinctions should be regarded. Dipsomaniacs should be treated as insane persons, and the State should take charge of them. They should be committed to asylums for a year at least, and if possible for three years. There is but one way to obtain a cure, and that is the absolute withdrawal of alcohol. The only drug of any use is bromide of potassium.—*The Practitioner*, June, 1879.

The Cæsarian Operation in Louisiana. — Dr. R. P. Harris has recently collected, with much care and trouble, records of all the operations of gastro-hysterotomy that have occurred in Louisiana, and the statistics give a very favorable showing for that State. Nineteen cases are reported. Of these, $73\frac{1}{19}$ per cent. of the women, and $42\frac{2}{19}$ per cent. of the children were saved. In six instances the operation was performed early, and here all the women and four of the children recovered. In ten cases where labor was prolonged three women and all the children died. These statistics are particularly valuable in showing the real mortality of the operation, because they include all the cases and not those alone which had previously been published. The danger in drawing conclusions from the cases voluntarily put on record is shown by the fact that of the 108 collected cases in the United States only 62 have even been published, the remaining being, of course, often fatal ones. The statistics given show that about three-fourths of the women and two-fifths of the children recover; also that the early operation is very much more favorable both for mother and child.—*N. O. Medical and Surgical Jour.*

Muscle-beating in Infantile Paralysis.—A muscle-beater manufactured at St. Petersburgh and on exhibition at Paris, has been introduced into some orthopædic establishments as a supplement to massage. Besides this instrument, which is called Klein's muscle-beater, there are employed oval palettes four inches long, two and a half inches wide, covered with velvet and attached to a handle seven inches long. Two of these are used, striking the limb alternately. The palettes are better than the Klein's muscle-beater, but neither will take the place of rubbing.—*British Med. Journ.*

The Pure Rubber Bandage.—In a letter to *The Lancet*, Dr. H. A. Martin reiterates his claims for the rubber bandage in the treatment of chronic ulcers. There are few, we believe, who have tried them who have not met a good deal of disappointment, and anything but uniformity in the results. At some of our city hospitals it is roundly asserted that those who attain such extraordinary successes mistake granulation for cicatrization. Dr. Martin contends, however, in his letter, as he has done elsewhere, that failures are due to the use of ointments and washes with the bandages, or to the bandages themselves being improperly made. The most injurious, and perhaps most frequently used wash is one containing carbolic acid. And this drug is also employed in making many of the bandages, especially the English ones. The bandage should be composed of pure rubber, with the minimum amount of sulphur necessary to vulcanize it. Dr. Martin is undoubtedly right in discountenancing the employment of the various irritating washes and applications. To claim, however, that with the pure gum the days of the chronic ulcer are over, is going much farther than facts will justify.

New Remedies.—Dr. J. J. Mulheron, of Detroit, gives additional testimony to the value of eucalyptus globulus in subacute cystitis. He uses it in doses of ℥xx. of the fluid extract every four hours. Dr. A. S. Rockwell, of New York, reviews the history of *Viburnum prunifolium*, or black haw, and as the result of the experience of others and himself, endorses its use in certain kinds of dysmenorrhœa. The cases in which the drug is indicated are those of delicate nervous women, in whom the pain is due to slight flexions, slight endocervicitis, partial stenosis, or where it is neuralgic in character. Black haw may be classed as an anodyne antispasmodic and tonic. It is given in infusion, tincture, or fluid extract, the dose of the latter being about ʒ ss. every one or three hours.

Dr. John B. Rice relates a case in which the tincture of *Thuja occidentalis* seemed to cure a case of epithelioma of the lip. The patient took fourteen drachms daily. This drug was first brought into prominence by Dr. J. R. Leaming, of New York, in 1877, and he has had similar successful results in his own practice. It is not pretended that it is always a specific, but it seems to be often very beneficial and occasionally even curative in these affections.

The new laxative *Cascara sagrada*, about which there has been much quarrelling in western journals, seems to be taking its place as a tolerably useful remedy.—*New Preparations* and *Mich. Med. News.*

Hydrophobia.—The repressive measures usually adopted by municipalities to prevent hydrophobia are those, according to Dr. Blatin of Paris, most likely to cause the disease. This is especially true of muzzling dogs. The practice of killing dogs the moment they are suspected of being mad is still more absurd. It is stated by the Council of Hygiene of Bordeaux that the premonitory stage of rabies is harmless. It is known that mad dogs live but seven days, which is not a very long time for the bitten person to wait in order to learn with certainty his fate.

St. Luke's Hospital.—Dr. Beverly Robinson has been appointed Visiting Physician to this institution, to fill the vacancy caused by the resignation of Dr. Wm. M. Polk.

Lessons in Gynecology.—Our attention has been called to an error in the review of Dr. Goodell's "Lessons in Gynecology." The reviewer says, "nowhere has even mention been made of the name of Emmet," etc. This is an error which we cheerfully correct by directing attention to page 182, where the parenthetical sentence, "Emmet, to whom we owe all we know about the operation," etc., can be found.

BOOKS RECEIVED.

Proceedings of the Connecticut Medical Society, 1879. Hartford, Conn.: Lockwood & Brainard.

Transactions of the Medical Society of the State of New York, 1879. Syracuse: Truair, Smith & Bruce.

Original Lectures.

SPASMODIC INFANTILE PARALYSIS—SPASMODIC INFANTILE HEMIPLEGIA.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

GENTLEMEN:—The affection to which I will first call your attention this morning is a form of infantile pseudo-palsy, of which you will find little or nothing said in your text-books. Cases reported in journals have also been few, although the spasmodic spinal paralysis of adults has been largely discussed by neurological contributors during the last few years.

B. D., æt. 4, is a little boy from the children's asylum connected with the Hospital. As nothing is known of his relatives, no previous history can be obtained, and we will have to be contented with a study of his present condition.

He has a fair-sized head, but it is flattened a little more than usual from the vertex forward. The fontanelles are closed, but the lines of the sutures are projecting and rough. Both pupils are dilated, and, according to the nurse, they are always in this state. He has left internal strabismus; he has no facial paralysis; he can protrude his tongue without difficulty, and he talks pretty well for a child of his age. He seems to have fair intelligence, but he cries and laughs on slight provocation.

His back seems weak, and tends to project backward as he sits on the chair; he has, however, no real spinal curvature. He has good use of his arms, but they show a *tendency* to flex at the elbows; they frequently get into a semi-flexed position when he is quiet, and sometimes resist extension slightly, but they are not rigid, and he can straighten them himself without special effort.

He is unable to stand alone, and if attempts are made to force him to do so he becomes much alarmed. If not held he falls at once to the floor. Supported by the hand, or from behind, he stands in a peculiar position. His legs, from the knees upward, are tightly drawn together; below the knees, they are a little apart; the heels are kept slightly elevated; the thighs are bent on the pelvis at an angle of about 120°, and the legs have about the same inclination on the thighs; the feet turn inward slightly. The flexors and adductors of the thighs, and the muscles of the calf, feel hard, and are in a condition of tonic spasm. He walks in a curious fashion, keeping hold of the hands of the nurse; his legs remain semi-flexed at the knees; he steps on the front part of his feet and toes, his heels never touching the floor. As the leg and foot of one side are advanced, they tend toward and sometimes are carried over the other limb; sometimes, as he puts forward the right foot, the toes of the left will get under the right heel, and *vicè versa*; the limbs, in walking, have a tendency to become entangled; the flexors and adductors of the thigh seem to be always acting unduly; the feet are kept in a condition of slight extension and adduction.

His body appears to be abnormally long in proportion to the length of his legs. His hips are narrow, and the glutei muscles show some want of development. The thigh and leg muscles are fairly developed, particularly the flexor groups. Electro-contractility is generally well retained. Sensibility is good. The limbs are not cold nor changed in color; the joints are free from adhesions; the prepuce is not adherent and can easily be retracted.

When he is sitting or lying down his legs can be straightened by the exercise of some force, but they immediately tend to return to their state of abnormal flexion and adduction.

Lightly tapping each patellar tendon, the corresponding foot and leg is projected quickly and somewhat forcibly forward. I can produce the same phenomenon by tapping upon the lower part of the tibia. Abruptly forcing the foot into flexion, and smartly striking the tendo-Achillis, no tremor or oscillation is set up, but the spasm in the flexors and adductors is increased.

Before discussing this curious case, I will read you the notes of a private patient, many of whose symptoms correspond closely to those of the child before you.

J. P., æt. 4, was apparently very healthy until three months old, when he had a severe attack of vomiting and convulsions. Several other children in the same family have had convulsions during infancy. When a year old the patient had pneumonia, during which his mother says he had "inward spasms." For more than a year after this his bowels were much constipated, never being opened without an injection. During his entire infancy he was very fretful and irritable. When he began to use his arms and legs his parents noticed that he could not grasp things properly and could not balance himself on his feet. He has never been able to stand or walk alone.

His condition has not materially changed during the six months that I have had him under observation.

He has left internal strabismus, which his mother thinks dates from birth. His face has a smooth look, the lines not being well marked. He has, however, no paralysis of the facial muscles. He can talk quite glibly and seems bright and intelligent; but it is often difficult to fix his attention upon a special subject. He usually carries his head thrown backward slightly. His back seems weak.

He carries the left arm strongly flexed at the elbow, and flexed and abducted at the wrist, the fingers and thumb being at the same time thrust apart and slightly bent backward. His right arm, forearm, and hand present the same abnormal contractions, but they are not nearly so marked as on the left side.

Both legs exhibit a strong tendency to flexion at the knees. The thighs are adducted, but not forcibly. His feet are held slightly inverted and extended, the heels being drawn upward. The flexors are spasmodically contracted.

Catching hold of some one's hands to support him, he makes a timid effort to walk. He steps on the toes and balls of the feet, his heels not coming down. The legs do not straighten at the knees. The feet are kept wide apart. The limbs do not tend to interlock or to cross one over the other, as in the other case.

The muscles generally are firm and well developed. Those of the upper, outer, and posterior aspect of the thigh are particularly large and firm. Electro-contractility and sensibility do not appear to be changed. The patella-reflex actions are rather above than below the normal, and passive dorsal flexion does not produce clonus, but seems to increase the already existing spasmodic tendency and condition.

Both legs and arms can be straightened by forcible traction, but the flexors resist the effort, and on letting

go of the limbs they tend immediately to return to their condition of spasmodic flexion.

The legs show no vaso-motor or joint troubles. The functions of the bladder and bowels are naturally performed.

Let me now sum up the chief features presented by these two cases. Briefly they are as follows: Dilated pupils and internal strabismus; slightly weakened intelligence; in one case convulsions in infancy, in the other the infantile history not known; apparent weakness of the muscles of the back in both cases; marked state of tonic spasm of the lower extremities, chiefly affecting the flexors and adductors; a similar spastic condition in the arms in one case, and a tendency to spasmodic contraction in the other; inability to stand or walk alone; tendon-reflexions increased; no paralysis of bladder or bowels; retention of electro-contractility and sensibility; absence of vaso-motor changes or joint troubles.

The positive symptoms are certainly chiefly spinal. They would seem to indicate either a congenital or an acquired want of development of certain columns of the cord. As we have no loss of sensibility, no ataxia, no trophic or vaso-motor changes, but only disturbances in the domain of motion—spasm, paresis, and increased reflex—the lesion, whatever it may be, is probably one of the motor divisions of the cord, of the lateral or antero-lateral columns. You have a disorder of infancy and childhood analogous in many respects to the spasmodic spinal paralysis of Erb, which this author tells us is almost exclusively a disease of maturity, and whose pathology is probably properly indicated by the designation primary lateral sclerosis. Erb, indeed, remarks that from various observations which he has reported it would appear that spasmodic spinal paralysis may also develop itself even *in earliest childhood*, and we might then imagine the possible congenital defective development of certain divisions of the spinal cord. Part of the cases described under the name of spasmodic infantile paralysis may well belong to this class. The remarkable observation communicated by Seeligmueller, where four children of the same family were taken sick with amyotrophic lateral sclerosis, should also be placed here. (*Ziemssen's Cyclopædia*, Vol. XIII., p. 624.)

Is not the brain implicated in cases of this kind? The convulsions, lowered intelligence, strabismus, and dilated pupils might be supposed to point to cerebral involvement. The convulsions, however, may have been spinal or may have arisen from temporary causes, and intellect is not more seriously compromised than in many other children who have early lost the use of their limbs from spinal or peripheral disease. The ocular symptoms might be connected with spinal defect. You must not forget, however, the very frequent occurrence, even in the so-called systemic scleroses of the spinal cord, of coincident cerebral lesions. You might have lesions in such cases in both brain and cord. It would not be impossible to explain the phenomena of spasm and paresis presented by these patients by a bilateral sclerosis and atrophy of portions of the cortical motor zones; but a primary spinal affection is, on the whole, more probable. Secondarily, the cerebral centres of motion have, no doubt, become affected.

In St. Bartholomew's Hospital Reports, Vol. XIII., 1877, Samuel Gee, M.D., in a brief communication *On Spastic Paraplegia*, reports several cases similar in many of their features to these cases. He gives their chief characters as follows: Constant rigidity of legs, or of legs and arms, which increases when the limbs are handled, and disappears under chloroform; the functions of the limbs impaired; the disease congenital or beginning in infancy; the affected muscles act well to faradism; the nutrition of the parts usually well kept up; general nutrition good; no tremors; intellect and sensation natural; no lesion of micturition; the back apparently weak in all cases; choreiform movements of the face occurred in two instances; in two a tendency to convulsions; painful cramps in the legs in one case. Gee gives these cases without note or comment.

Cases of spasm involving the muscles, the legs or arms, or both, somewhat similar to those I am describing, but of temporary duration, are sometimes met with among infants and children, as well as among adults. Dr. S. Weir Mitchell, in a lecture on *Spasmodic Disorders of the Legs*, published in the New York Medical Record for June 28, 1879, mentions some cases of this kind, and makes of them a distinct group due to obscure functional conditions, and in which the spasms seem to be temporary, and to constitute the sole objective symptoms. One of his cases was a lad aged seventeen years, who, after exposure to intense heat, was attacked with headache, and subsequently with dull aching and extreme rigidity of the legs. The rigidity disappeared by slow degrees, and the boy was well at the close of three weeks.

Several months since, in consultation with Dr. Roland G. Curtin, of this city, I saw one of these curious cases of temporary rigidity or spasm. The patient was a girl thirteen years old. She was first taken down with pains in her limbs, apparently rheumatic in character. In a few days endocarditis developed; a mitral systolic murmur was detected. Soon, under treatment, the pains and cardiac symptoms improved greatly; but she now began to suffer from a troublesome crapulous diarrhœa. About the same time the doctor noticed a stiffness in certain muscles of the arms and legs. These rigidities increased, and were accompanied by pains and aching in the limbs and joints; I saw her nearly four weeks after their first appearance. Her arms were held semi-flexed at the elbows; her hands were slightly flexed and abducted at the wrists; both the extensors and flexors of the thighs were in a condition of tension, so that her legs were kept rigidly straightened out; the heels were drawn upward and the feet inward by strong spasmodic action of the calf-muscles; so far as the symptom spasm was concerned, the condition was much the same as that of my second little patient, differing from it only in degree. Pain or soreness in the affected muscles and around the joints was, however, a symptom not present in my cases of spasmodic infantile paralysis. In this case, as in the others, by the exercise of considerable force, the muscular rigidities could be overcome and the limbs extended or flexed; but after she had been handled in this way she suffered for several hours with more or less pain in the parts manipulated. In our infantile patients, pulling and hauling at their limbs does not seem to cause any pain, either at the time or afterward. In this girl the tendon-reflexes were exaggerated. Sensation was unaffected. She suffered considerably with headache. Her appetite was very capricious. She was highly anæmic. She had never shown any hysterical peculiarities. She was placed upon the nitrate of silver and opium, the one-sixth of a grain of each four times daily, and, what is most gratifying to report, immediately began to improve. In one week she was able to stand and walk a little; in two weeks the diarrhœa and spasmodic disorder had both disappeared; her general health also became good, and

Dr. Curtin has informed me within a few days that she is now, and has been for many weeks, right well.

Dr. Mitchell, in the lecture alluded to, speaks of rigidity of the legs in children, which he believes to be associated with defective cerebral development; also of cases of spasm of the adductors of the thighs for which he has had circumcision performed, but without success. He thinks that irritation of the sexual organs is sometimes a source of adductor spasms.

I do not think, as I have already intimated, that in my cases the brain was chiefly involved, and preputial irritation had certainly nothing to do with the production of the symptoms.

In regard to the treatment of these cases of spasmodic infantile paralysis, I am sorry to say that I have nothing encouraging to advance. If a congenital or acquired atrophy of the spinal cord is at the root of the trouble, you can certainly hope for but little positive benefit from any treatment, unless new channels for the transmission of motorial impulses can be created. Nitrate of silver, and remedies of the same class, might be tried, but not with the hope of success that you would have in cases of a functional or temporary character, or even, perhaps, in spinal scleroses occurring from special causes in adults. Something may, perhaps, be accomplished by training, by persistently striving to get the patients to throw more will into the muscular efforts which are wanting.

In the second case which I have detailed, I made a systematic trial of electricity. For six weeks, every other day I applied as strong a galvanic current as the child could bear—not a very strong one, by the way—along the spinal column. I used large sponge rheophores, keeping one in the lower lumbar region, and putting the other first to the back of the neck, and then moving it slowly from point to point down the spine. The ascending current was employed for half the time, and the descending for the other half. No appreciable effect on the disease was produced. Still further trials with electricity might, however, be made. The general health of the patients should, of course, be sustained by attentions to diet, fresh air, etc. As pain is usually absent, narcotics are not called for, and hypodermic injections of atropia, or of atropia and morphia, are not as useful as in the spastic paralyses of adults. In the present state of our knowledge of these cases, cutting the tendons could not, I think, be looked upon as anything but bad practice, however tempting it might be to interfere surgically.

SPASMODIC INFANTILE HEMIPLEGIA.

In conclusion, in connection with the cases just studied, it may not be uninteresting to direct your attention briefly to a case of paralytic and spasmodic disease occurring in infancy, and of undoubted cerebral origin.

The patient is a little girl, four years of age. When she began to creep her mother first noticed something wrong with her left arm and leg; they seemed much weaker than the limbs of the opposite side, and she usually carried the arm slightly bent at the elbow. When two years and a half old, the child awoke suddenly one day, crying and frightened, and immediately fell over in a spasm. The convulsions affected only the left side of the body, and the movements were chiefly confined to the fingers and toes of this side. This attack lasted about half an hour, or a succession of seizures took place during this time. Her face was pale and her lips blue during the paroxysm. Every month since this first convulsion, she has had two or three similar attacks. They are always followed by a temporary increase in the paretic symptoms in the left arm and leg.

The child, you observe, is rather small for her age, but is of good color and fair, general appearance. She talks pretty well. She is cross, self-willed, and irritable. She never complains of headache or of pains. The left arm and leg measure about half an inch less in circumference than the right limbs at corresponding points. She carries the left arm slightly flexed at the elbow, the hand, thumb, and fingers being also in slight flexion. This arm is weak, but not powerless; she can lift it to a horizontal line, and has some grip, but cannot long continue her grasp upon an object. The entire left leg is weaker than the right, but shows no contractures. The left foot tends to turn inward. Faradic and galvanic contractility are retained, but are diminished in the peronei and extensor muscles of the foot. Examination with the ophthalmoscope shows nothing abnormal.

I could quote to you from my note-books many cases similar to this. At one time they were passed by without reasonable explanation, but much light has been thrown upon them by researches in cerebral localization. Unlike the other cases of which I have just spoken, the spasms in this patient are clonic, are accompanied by unconsciousness, and are confined to the limbs of one side. You have here in all probability a permanent lesion, both irritative and destructive, of the cortical motor area of the right hemisphere. Hughlings Jackson was the first to clearly point out that these cases of partial epilepsy, with hemiplegia or hemiparesis, were usually due to lesions of the convolutions of the brain. A number of cases have been reported by Charcot and his pupils, by Ferrier and others, in which, with symptoms like those presented by this patient, the lesions after death were found to be softening, sclerosis, atrophy, hemorrhage, tumor, tubercle, syphilitic exudation, or injury of the motor zone of the cortex.

When the spinal cord has been examined, usually a band of sclerosis has been discovered occupying the lateral column of the opposite side to the seat of the cerebral disease. This lesion of the cord belongs to the class of secondary degenerations, and is the probable cause of the persistent spasmodic conditions of the extremities.

ETIOLOGY OF DIPHTHERIA.—In discussing the outbreak of diphtheria in London last spring, Dr. T. Morton states that undoubtedly the most common mode by which diphtheria is kept alive in our midst is by direct infection from case to case. It is not probable that the poison is conveyed by fomites, but it is more than likely that very slight and almost unnoticeable cases may be the parents of severe ones. It is certain that milk is a very important factor in causing the disease. Whether it acts directly, *i.e.*, whether the poison is generated by a disease in the cow itself, such as garget, or what the Germans call "perlspeck," or whether the milk is simply a carrier of germs taken in the cow's food, cannot be decided yet. The fact that milk is the infectious agent, however, is sufficiently established.—*Med. Press and Circular.*

PILOCARPINE AS A REMEDY FOR BALDNESS. Two cases are given by Dr. G. Schmitz, of Berlin, in which pilocarpine caused a new crop of hair to appear on patients previously quite bald. The drug was being given for disease of the eye.

Original Communications.

CEREBRAL COMPLICATIONS OF CHOREA.

By L. PUTZEL, M.D.,

NEW YORK.

Apart from the interesting nature of the following cases, I have been led to publish them from the fact that the cerebral complications of chorea have excited so little attention in this country. The histories of these cases also tend to shed some light upon the pathology of the affection, and favor the view that chorea is the result of an abnormal process occurring in the cortical structure of the brain, and not in the basal ganglia, as held by so many English pathologists.

Case I.—Peter K——, æt. 3¾ years, first came under my observation at the Clinic for Nervous Diseases in the Bellevue Out-door Department, on April 22, 1878. The family history is unimportant, there being no tendency to hereditary disease of any kind; neither the parents nor any other member of the family have ever suffered from rheumatism. The patient was always in excellent health until the first week in March, when he suddenly developed considerable fever, followed, in three days, by swelling of the knees and ankles, the joints also becoming exceedingly painful to the touch. This condition lasted three weeks, and was diagnosed as acute articular rheumatism by the physician in attendance at that time. Very shortly after the termination of the rheumatic attack (April 1st), and while the patient was apparently doing very well, he began to suffer from irregular choreiform twitchings in the limbs, which did not, however, attain any considerable severity. A few days later, the child awoke one morning in a condition of great muscular weakness and was unable to articulate, although speech had hitherto been perfect. The paresis gradually grew worse until a week ago (April 15th), since which time it has remained *in statu quo*. The twitchings of the muscles continued up to the present time, but were not of a very marked character.

Present condition (April 22, 1878): The patient is a large, apparently well-nourished child. He has left convergent strabismus, which came on after a slight attack of diarrhœa occurring last July.

Physical examination: The apex-beat of the heart is felt at the nipple; a loud, blowing systolic murmur is present, and is heard most distinctly at the apex; it is also conveyed into the left axillary space, but could not be traced into the scapular region; the second cardiac sound is sharp and distinct.

The patient is unable to swallow solid food, and the mother states that this condition has lasted since the beginning of the paralysis. There is considerable weakness of the upper limbs. The grasp is feeble, and the hands cannot be raised above the shoulders. The lower limbs are even weaker than the upper. There is almost complete paralysis of the anterior muscles of the leg, the feet hanging in the position of talipes equinus, and the toes are only movable to a very slight extent. The patient is barely able to flex the thighs on the abdomen. When placed in a sitting posture, the child immediately topples over to one or the other side, apparently from paralysis of the dorsal muscles. The muscles throughout the entire body feel soft and flabby. It is impossible to get accurate data with regard to sensation on account of the age of the patient. Reflex action and the electro-muscular reactions are entirely normal. The patient is unable to speak, except to say "yes" or "no" in an indistinct manner. Sleep is very much disturbed. The natural folds of the face are almost completely effaced, and the lower facial muscles appear to be paretic. The eyelids are, however, opened and shut in a normal manner. There is very little power of motion in the tongue, the organ being protruded slowly and only to a slight extent. The choreiform movements are scarcely noticeable, and occur at long intervals. I ordered milk diet, cod-liver oil, and the following prescription:

℞ Tinct. ferri chlorid..... ʒ ij.
Potass chlorat..... ʒ j.
Syr. simp..... ℥ iv.
Sig., ʒ j. t. i. d.

The condition of the child began to mend very rapidly, and a month later the following notes were taken: The patient is able to walk almost as well as ever, and the power of the upper extremities is apparently entirely restored. Slight choreiform movements still continue from time to time; speech is almost perfect. The mother states that during the last two weeks the child has been almost demented, and has not appeared to comprehend the simplest ideas. At times he has apparently had hallucinations of sight; on one occasion, while playing with some toys, he turned around and began to talk with some imaginary playmates, saying "that he was better than they." To-day, however, the patient appears quite bright and intelligent.

June 5th.—The patient is well in every particular, except that the mitral murmur is still distinctly audible, though not so loud as formerly.

The distribution of the paralysis over the entire body, and the coincident mental disturbances, appear to indicate that the morbid process was situated in the cerebral cortex. The rapid recovery would serve to show that the affection was due to some circulatory disturbance (anæmia?), and not to an organic lesion. In my opinion, the existence of endocarditis was merely a coincidence, and cerebral embolism may be excluded by the bilateral character of the paralysis, the rapid recovery, and the probability of a cortical lesion (symptoms of mental derangement).

Case II.—Fanny M——, æt. 17¼ years; family history is entirely negative. She always enjoyed good health until the beginning of the present ailment. Last August the patient caught cold while menstruating, causing a sudden arrest of the menstrual discharge. A week later, choreiform twitchings began upon the right side of the body, and soon increased in violence. After the lapse of three or four weeks, the left side of the body also became involved, but the movements have never been so severe as upon the right side. Towards the end of September the patient had a bad attack of nightmare, during which she started up from bed and wandered about the house in a condition of great fear and consternation. For the next five or six weeks she gave marked indications of insanity. For some time she refused to eat, stating that her food was poisoned and that she was being persecuted by strangers. She evinced hostile feelings toward the members of her family, especially toward her mother, whom she called vile names. At times she failed to recognize her friends and acquaintances, and thought that her female relatives were men dressed in women's clothes. The patient was also vicious and violent, destroying her clothes and various articles of furniture. During this time the choreic movements became extremely violent and continued

even during sleep, so that the patient's limbs had to be tied down in bed in order to prevent her from falling out and doing herself bodily injury. After the affection had reached its height, the choreic manifestations rapidly improved, and the symptoms of insanity began to disappear at the same time. The choreiform movements still persisted, however, to a certain extent, and were present to a moderate degree when the patient first came under my observation. I then prescribed Fowler's solution, beginning with five drops three times a day, and increasing rapidly until twelve-drop doses were taken. Within a week after beginning this plan of treatment, the menses (which had been suppressed since last August) returned, and in less than a month the choreiform movements were no longer noticeable.

In this case the mental aberration was most marked at the height of the chorea, when the movements were so violent that they did not even cease during sleep, and necessitated the application of stout bandages to the patient's trunk and limbs. The prognosis of this form of choreal mania is very good as regards recovery from the insanity. In the majority of cases the mental disturbances disappear as soon as the choreic manifestations have subsided, or within a couple of months thereafter. Cases of maniacal chorea furnish, however, a large contingent of the mortality in chorea, not so much on account of the complication with insanity, but because the choreic movements are so severe that they interfere with sleep and nutrition. This fact furnishes an important guide-post with regard to the treatment of these cases. The faulty nutrition is best met by resorting to rectal alimentation (milk, blood), or to the milk diet per os. The lack of sleep must be combated by the administration of large doses of chloral and bromide of potassium (the quantity must vary with the individual case), and, in some very obstinate cases, chloroform has been successfully employed.

Chorea sometimes simulates insanity, although the mental powers are intact. Thus, choreic patients may appear to be incoherent in their speech, owing to the fact that articulation of speech is interrupted by involuntary movements of the muscles of phonation, giving rise to the involuntary utterance of words or of disjointed sentences foreign to the matter under discussion. This apparent incoherence of ideas, together with the apparent destructive tendencies manifested by the patient on account of his lack of control over the muscles, has led physicians, in several instances, to make a diagnosis of insanity, although the intellect was normal. An English alienist, whose name escapes me, has reported two cases of this nature which had been committed to an insane asylum. The differentiation of such cases from those of choreal mania must depend upon the exercise of the judgment of the physician.

Case III.—Wm. K——, æt. 8 years; the patient's great grand-aunt was insane; his grandfather died of apoplexy; a grand-uncle was an inebriate; a brother suffers from epilepsy. The mother is nervous and hysterical, but she states that this condition has only developed of late years from the worry and distress consequent upon the ill-health of her children. No member of the family has ever suffered from rheumatism. When three weeks old the patient had pneumonia, and had a number of convulsions during his illness. He also had convulsions at the beginning of an attack of measles from which he suffered during infancy. The patient had two attacks of acute articular rheumatism at the age of three and five years; had another attack, which lasted a week, about eighteen or nineteen months ago. Two years ago the patient began to have choreiform twitchings in the limbs, which grew worse in the spring, and almost entirely disappeared after the lapse of a year. But even at the present time, considerable muscular twitching becomes apparent if the patient is very much excited. When the patient is calm these movements disappear entirely.

During the course of last summer the patient began to act strangely. He became extremely insubordinate at school, and began to display evidences of very bad temper. Upon one occasion he cut a playmate with a knife on account of a trifling dispute. Last September he began to entertain the delusion that objects around him were placed crooked. When sitting at table, he would carefully smooth out the wrinkles in the tablecloth, was continually moving the dishes in order to straighten them, and stated that the chairs and pictures were crooked. At length he would eat only from a low bench placed upon his knees, on account of his inability to get the table straight. About the same time he began to manifest an uncontrollable aversion toward his mother, to whom he had previously been fondly attached. During the summer the patient was continually finding fault with his clothes, stating at one time that the sleeves were too short, and then again too long. Finally he began to tear off his clothes, and would run around naked, "because his clothes hurt him." The patient also had hallucinations of sight and hearing. Sleep was very much disturbed unless the patient took hydrate of chloral at night. The appetite was very capricious, so that at times he would eat ravenously, and then again would lose all desire for food. The patient would wake up in the morning feeling very tired. I have been unable to obtain a history of any epileptic seizures, either diurnal or nocturnal. The patient has gone to the window several times with the expressed intention of jumping out; he has also threatened to commit suicide by cutting himself with a knife. He also said that he would rather be dead than alive, and remarked to his mother "that she would also prefer death if she felt like him, though he does not suffer from headache." Upon being cross-questioned, he is either unwilling or unable to define the nature of his suffering. His insane condition is not constant, but alternates with intervals in which he appears to be perfectly rational. These intervals are more numerous and longer than they were during last year.

The child's physical condition is excellent, and careful examination fails to reveal the slightest indication of organic disease. The patient is shy, and the expression of his countenance is gloomy and careworn.

I again saw the patient to-day (Aug. 15, 1879) and was informed by his mother that his mental condition has improved considerably during the past month, the child being more sociable in his disposition and manifesting greater affection for his mother than formerly. The treatment consisted in the beginning of Fowler's solution, and hydrate of chloral in ten-grain doses at night. During the past six months, the Fowler's solution was discontinued and the patient received nitrite of amyl, gtt. iij. t. i. d., by inhalation. The administration of the latter remedy was usually successful in cutting short an attack of maniacal violence.

The prognosis in this case is very poor, the hereditary tendencies to severe nervous diseases constituting a great obstacle to recovery. This case differs from the preceding one in the fact that the choreic movements were not well developed; hereditary predisposition undoubtedly played an important part in the etiology, and this fact may also account for the con-

tinuance of the mental disturbances. Rheumatism may be disregarded as an etiological factor, both on account of the duration of the insanity, and also because the mental disturbances were not manifested until long after the disappearance of all symptoms of rheumatism.

No. 252 E. 48th St.

STATE PROTECTION FOR SYPHILOPHOBISTS.

By HENRY M. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF DISEASES OF THE NERVOUS SYSTEM, RUSH MEDICAL COLLEGE, CHICAGO.

In spite of the conclusive manner in which this subject has been discussed and decided in accordance with the highest generalizations of science and philosophy, feeble voices may still be heard in remote corners of the land, hoarsely crying for protection by the civil government against the consequences of indiscriminate dalliance with the charms of easy virtue. Such an exhibition of folly might well be left to correct itself were it an isolated fact. But, unfortunately, it is merely an expression, in a particular form, of the immense ignorance which now prevails, and is even fashionable in certain circles, regarding the nature and meaning of disease, and regarding the proper functions of civil authority.

Good government exists solely for the purpose of securing to every one the largest liberty of action consistent with equal liberty for every other citizen. Good government recognizes the individual and individual rights as the highest elements of society; and, consequently, leaves to the individual the responsibility of protecting himself and his private interests in his own way, as long as he does not interfere with the equal rights of his fellows. In this way alone can the highest evolution of human character be secured; in this way strength and self-reliance and self-respect are developed and matured. But every inferior type of government seeks to subordinate the individual, and to make itself supreme. Those forms of government which accomplish this result are bad, because they are so organized as to give to certain individuals an advantage over all other members of the community. Such government is bad, because it unduly restrains the freedom of one portion of society, while it unfairly enlarges the liberties of the remaining fraction. Such a system of government produces, therefore, a one-sided development of all who are subjected to its influence. The most perfect system of government, therefore, is that which bears with the greatest impartiality upon all alike, and which refuses to lend itself to promote the welfare of any person at the expense of the equal welfare of other citizens. A bad system of government, on the contrary, lends itself readily as a means of procuring the special advantage of any enterprising character, or class, who may succeed in capturing the machinery by which it is administered. Constituting, as it does, an engine of tremendous power, the history of the world consists principally of a record of the manner in which energetic people have wielded the power of government for their own benefit. Unscrupulous people who thus regard the political machinery of society, are always ready to enlarge the sphere of government. Every additional extension of this sphere means a greater limitation of individual liberty and individual evolution. Every such extension adds to the importance of the official administrators and their friends—consequently every official class naturally seeks to help itself by promoting the increase of official functions. At the opposite end of the social scale will always be discovered a class of indolent or enfeebled persons who are ready to fix themselves as parasites upon any social organization that seems to possess energy sufficient to sustain their weight. A government which is not maintained for the simple purpose of securing equal liberty for all, offers to such a class the greatest chances for private advantage; consequently, this inferior form of government will always be preferred by the governing class, and by the indolent and selfish substratum of society. With all such people *protection by government* is the uppermost idea. But by such protection they do not mean equal rights and equal liberty for all. The officials long to enhance their own importance by intruding their protection where it is not needed; the vagabonds insist upon protection, at the expense of honest people, against the consequences of the unbridled indulgence of their own vicious propensities.

The dangerous classes just mentioned often receive noisy reinforcement by a third class—the pseudo-philanthropists—commonly called sentimentalists, because they habitually surrender themselves to the control of their untutored feelings, instead of following the guidance of enlightened reason. These people can think of nothing but the immediate relief of suffering in what seems to them the shortest possible way. As the civil government presents to their tear-dimmed eyes the most imposing form of visible energy, they straightway fill society with a shrill cry for government aid against intemperance, and poverty, and syphilis, and scarlet-fever, and every other evil, without once stopping to consider whether individual citizens cannot just as well undertake their own protection against such dangers. Here, then, we find the explanation of the demand for state protection which forms a characteristic so discreditable to our present grade of social evolution. The manufacturing chemist insists that government shall "protect" him, at the expense of the nation, against everybody who can sell quinine cheaper than he can. The "statesman" wishes to be protected, in like manner at the expense of the nation, against the fever which his own social habits invite. The tramp boldly demands protection of the same sort, that he may enjoy a life of leisure—*otium cum dignitate*. The "gentleman" who picks his teeth in front of a fashionable hotel, thinks very meanly of a government which will not relieve him of all necessity for caution in the indulgence of his appetites—and all at the expense of honest citizens who have no time for anything but hard work and the practice of rigid virtue. A mere statement of the purposes of such legislation is sufficient to show its inequity and injustice.

It has been proposed to avoid this objection by taxing prostitutes in a sum sufficient to defray the expense of protecting their customers against them. But, to say nothing of the fact that such taxes have never been known to equal the cost of the increased machinery of government, we still meet the same unequal distribution of burdens which always accompanies protective legislation. The weight of taxation, as of shame, is thrown entirely upon the women themselves by this method, which thus becomes an additional refinement of selfishness; and society is expected to acquiesce in this prostitution of its own political machinery for the benefit of its most vicious and heartless members—while sentimentalists tell us that we must not object to any such arrangement, for fear of being eaten up by syphilis! Brave men are not afraid of any such risk.

The supreme selfishness to which allusion has just now been made indicates the existence of a moral side to this question. In fact, since man is a moral being, no adequate discussion of this subject is possible without a full consideration of its moral relations. But, since medical periodicals are not published for the sake of diffusing the principles of morality or the reverse, the proper place for such a discussion would be in some journal devoted to social science. I will, therefore, pass over this most important topic—though nothing daunted by the sneers with which men of undeveloped moral sensibility seek to cast obloquy upon all who undertake to investigate every side of whatever subject they may consider. The narrow way of looking at everything, to which our sentimental friends are so partial, is probably owing, however, to a defective visual capacity rather than to any actual moral obliquity; but it is a very serious impediment to scientific investigation, even when the field of research is restricted to the domain of the physical science. Consequently we find our philanthropic sanitary legislators continually falling into the error of attempting to deal with men and women as if they were so many cattle, instead of free and intelligent beings. Hence the universal failure of all such legislation when it cannot be enforced with powder and ball. Hence the great mistake of supposing that sanitary measures, which may produce good results among soldiers, will benefit civilians.

An army is a machine which exists for the single object of war. A soldier must be healthy and ready to fight—he need not, had better not, be too scrupulous about morals. Consequently, so far as the indulgence of his appetites is concerned, the only question for consideration is the prevention of disease as a result of indulgence. Anything which will protect him from disease is good enough, for he is not to be treated as a moral being, but as a combatant. But civilians are not so to be regarded; they are men and women, and they have rights—social and moral—which no one may safely ignore. For this cause, the alleged success of certain methods of dealing with prostitution among soldiers constitutes no reason whatever for the conclusion that the same methods will benefit civil society. The conditions are totally different, consequently the results must be as widely different.

In addition to these arguments, and to many others which may be drawn from political science and from moral philosophy, may be urged the argument of experience. In every community where the experiment has been tried, it has been found that the registration and inspection of prostitutes fails to secure absolute protection for debauchees. Women who pass the official examination may still carry within themselves the seeds of disease, and may infect a paramour whose caution has been lulled to sleep by an official certificate. It has also been found utterly impossible to maintain a system of inspection without the establishment of a loathsome brood of spies and informers, whose influence upon society is of the worst possible description.

Dismissing for the present all further notice of considerations derived from the higher sciences, we find that the entire proposal for state protection of syphilophobists is utterly opposed to the wholesome laws of nature which, if unobstructed by meddlesome interference, will surely accomplish the highest physical good of mankind. As Herbert Spencer has wisely remarked, disease and pain are simply the admonitory result of being out of harmony with one's surroundings. Without such warning it would be impossible for a conscious being ever to learn the fact of such mal-adjustment, and the evolution of the human race would be indefinitely retarded. But, stimulated by such monitions, through the aid of natural selection, two classes of human beings are growing into prominence. The first, by sobriety and by self-control, puts itself beyond the reach of venereal disease; the second, by constant transgression, will become at length thoroughly adjusted to the brutal condition, and, ceasing to be out of harmony with its surroundings, will practice promiscuous fornication with an immunity equal to that which attends the similar performances of a dog or a goat. The great restriction and progressive amelioration of syphilis which has taken place within the period of modern history proves that this strictly scientific expectation is not so very far from accomplishment at the present time. But, if these wholesome natural processes are to be rudely hindered by the three dangerous classes of the community above mentioned, the process of the adjustment of mankind to its surroundings will be greatly delayed, and the sum total of human anguish will be greatly increased. State protection for the vicious is, therefore, the most thoroughly unscientific thing that can be proposed, as every one who has comprehended the theory of evolution must necessarily perceive. But, since sentimental people are sentimentalists by reason of their incapacity for certain kinds of knowledge, every effort thus to address them with scientific arguments must be as fruitless as would be the attempt to discuss politics with a pig. One must have a capacity for sight if one would see. To their own devices, therefore, must we abandon all such people.

CLASS-ROOM LESSONS ON CHANCROID,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

BY FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[FOR THE MEDICAL RECORD.]

I.

CHANCROID — ITS CHARACTERISTICS — ITS HISTORY — ITS DIAGNOSIS.

GENTLEMEN:—To-day we will begin the study of chancroid, and the lesson will be restricted to general remarks regarding its characteristics, its history, and perhaps its diagnosis.

Chancroid is an acute, contagious ulceration, recognized as resulting from venereal contact. It is a purely local disease, possessing characteristics which entitle it to be considered, *par excellence*, the highest type of acute ulcerative action. In the great majority of cases it is the result of inoculation of the purulent secretion of an already existing ulcer of a similar character. Applied to sound integument or mucous membrane, it is capable, under favoring circumstances, of effecting a solution of continuity of the part, and of communicating to it at once its destructive and contagious properties. More commonly and readily it is established upon an abrasion of the skin or mucous membrane produced *in coitu*. On application of the purulent secretion of *chancroid* to an abrasion, either on the person already affected or on one previously free from the disease, congestion, inflammation, suppuration, rapid destruction of tissue follow in quick succession. The ulcer thus formed presents all the characteristics of rapid destructive action; it is sharply cut, with ragged edges and pultaceous floor, and secretes pus freely. Chiefly characterized by its

contagious property, the chancroid is seldom single, several distinct lesions usually presenting at the same time. Occurring under circumstances of good general health, cleanliness, and temperate living, its progress is usually self-limited; gradually increasing from two to five weeks, it acquires a diameter of from three to six lines; the loss of tissue is then slowly restored, and a scar like that of an ordinary burn is left. From first to last its secretion is inoculable, and the sore is capable of being reproduced upon the person bearing it. When reproduced by artificial inoculation it loses its contagious power in each successive inoculation until the secretion from it is no longer inoculable. It will thus be seen that the tendency of the disease, under favoring conditions, is always toward recovery. When acquired under unfavorable conditions, however, such as a depraved constitution, irregular life, filth, and alcoholic excess, the chancroid assumes its most vicious type. Characterized now by a high grade of inflammatory action and an increased destructiveness, it not unfrequently takes a peculiar action which is termed phagedenic, through which, in a few days, or even hours, important loss of tissue ensues, not rarely resulting in irretrievable mutilation, and possibly in loss of life. In other rarer instances, the *chancroid* takes on a sluggish but persistent form known as the *serpiginous*, with a gradual irregular loss of tissue, involving the integument only, but continuing often for years despite every means and mode of treatment. The extension of the *chancroid*, usually by continuous tissue, not unfrequently takes place through the entrance of the contagious secretion into a lymphatic vessel (opened by chancroidal ulceration), and its passage along that vessel to the adjacent lymphatic gland. This accident may occur at any period during the continuance of the chancroid. The gland in this manner affected (usually in the groin, and known as the chancroidal bubo), becomes tender and swollen. Evidences that the peculiar destructive chancroidal action is going on within the substance of the gland become daily more distinct, until in a few days an abscess is formed. On the discharge of the purulent contents of this abscess, they are found to possess the peculiar properties of pus from the original ulcer, and the open bubonic abscess takes on the appearances and other characteristics of the typical chancroid.

The *venereal ulcer, or chancroid*, in its early stages, is promptly amenable to judicious remedial measures. The application of any caustic, of sufficient power to destroy completely all the tissue which has been implicated in the diseased action, suffices to change the contagious venereal ulcer to a simple sore, when it goes on to recovery without other treatment than such simple sores require. The conditions which determine the severer forms of the chancroid are recognized as already stated. It is also found that the particular lesion which may present partakes in great degree of the activity, greater or less, which characterized the lesion from which it was derived, so that every grade, from the simple excoriation to the sharply defined and most active ulcer, may be met. Hence, all do not require the prompt and energetic course necessary to arrest and cure the typical chancroid. In the milder varieties, the judicious application of carbolic acid, iodoform, sulphate of iron, and other, even simpler antiseptic, sedative, and astringent agents, may suffice to bring about an arrest and cure. In the lightest forms it is often difficult to distinguish from non-venereal pustules which result from acrid sebaceous secretions, or from connection with a female suffering from an acute form of simple leucorrhœa.

In regard to its history, the chancroid is conceded to be of ancient origin, even to antedate the advent of *syphilis*. It has various synonyms—viz: "pseudo-syphilis," "soft chancre," "non-infecting chancre," "chancroid," etc. By the latter term, *chancroid*, it is almost universally known at the present day. It was distinctly recognized and described by the ancients as a disease known from the earliest times. Notwithstanding this, shortly after the recognized appearance of syphilis in Europe in 1492, it became confounded with that disease. Its purely local character was obscured, and it was subjected to constitutional treatment as a form of syphilis. Its chief characteristics, however, always most marked, were never quite lost sight of. Evincing its destructive property *at once* on inoculation of its secretion upon healthy tissue, and commonly associated with inflammatory enlargement and suppuration of contiguous lymphatic glands, it was thus directly opposed to the sluggish course of the syphilitic local affection and its non-suppurating glandular concomitants. Yet it was so often found associated with and followed by the constitutional manifestations of syphilis that its distinctive significance was doubted; and when, after a time, the well-known acute venereal ulcer was occasionally observed to exchange its soft edge and base for the indurated tissue known to characterize the early syphilitic lesion, the fallacious theory of *post hoc ergo propter hoc* prevailed, and thus the confusion of the two distinct diseases became complete. From this time *all* the contagious venereal diseases, gonorrhœa, chancroid, and syphilis, were accepted as practically identical, requiring the same constitutional treatment. It was found, however, after the habitual mercurialization of persons afflicted with soft sores or with gonorrhœa, for more than two hundred years, that constitutional syphilis did not necessarily follow the occurence of the soft ulcer nor of a gonorrhœa, even when no treatment was resorted to, while the ulcer with indurated base and edge was invariably succeeded by the general manifestations of syphilis. John Hunter, in 1786, was the first to recognize publicly the value of the induration characteristic of the venereal sore which was followed by constitutional syphilis, thus making the first positive step toward identifying and restoring to the different venereal disorders their distinctive individuality. Hunter, however, misled by an experiment upon his own person, taught that while the local manifestations of the venereal diseases were different, their source of origin was identical, and that the peculiar form and nature which they assumed in any given case was dependent upon some peculiar condition or idiosyncrasy of the affected individual. In 1798 Benjamin Bell of London claimed a simple origin for gonorrhœa, and in 1830 M. Ricord of Paris, after a series of observations and elaborate experiments in inoculating the purulent fluid of gonorrhœas and the secretions of the soft and hard venereal lesions, demonstrated the purely simple, non-specific nature of gonorrhœa, thus completely and forever eliminating it from among the manifestations of syphilis. Ricord, however, notwithstanding his numerous and carefully observed inoculations, and while distinctly recognizing the local and ultimate differences between the hard, or Hunterian chancre, and the soft sore, or chancroid, yet accepted and taught Hunter's view, that the difference between them was not one of origin, but of personal condition or idiosyncrasy. It was reserved for M. Bassereau of Paris (a pupil of M. Ricord), in 1852, to demonstrate the fact that in the disease then known as syphilis, comprising the soft local venereal ulcer and the indurated infect-

ing venereal sore, with its consequences, two separate diseases existed. Upon the confrontation (*i. e.*, personal comparison) of a very large number of persons affected by venereal disease, with those from whom their disease had been acquired, Bassereau found that in every person presenting a venereal ulcer, accompanied by well-pronounced evidence of constitutional syphilis, the person from whom the disease had been acquired was also, or had recently been, the subject of ulcers which were followed by constitutional syphilis, and that in no case was syphilis ascertained to originate from a person bearing the soft venereal ulcer alone. Similar observations by confrontation were made by Messrs. Dron, Clerc, Diday, Rollet, and Fournier in 1856, and in 1857 by Messrs. Fournier and Caby, under the supervision of M. Ricord, with the result of proving that in all cases of chancroid the type of ulcer remained unchanged in passing from one individual to another. Nevertheless, M. Clerc, while accepting and confirming the observations above alluded to, claimed to have produced the typical chancroid by inoculation of the secretion of an infecting (syphilitic) chancre upon a person previously the subject of syphilis, and thus to have demonstrated that the chancroid was the product of the inoculation of the syphilitic virus upon persons then or previously affected with syphilis. Clerc also claimed that while, as a rule, the chancroid thus originated usually transmitted only chancroid, yet on being inoculated upon a healthy person it was capable of reverting to its original type, and hence of communicating syphilis; thus asserting the unity of origin of the two diseases; and those holding this view were known as *unicists*. Rollet and others held, on the contrary, that not only were chancroid and chancre (the initial lesion of syphilis) separate and distinct diseases, but that they owed their origin to separate and distinct poisons; and thus the school of so-called *dualists* was initiated. The position of M. Clerc was supported by the observations of Henry Lee of London, the late Prof. Boeck of Christiania, Melchior Robert, and others, who succeeded in producing the typical chancroid upon persons syphilitic and non-syphilitic by inoculations of pus from an irritated syphilitic chancre. It was required that the degree of irritation in all cases should be sufficient to induce a free *purulent* secretion. Sores produced in this manner were inoculated in successive generations upon persons quite free from syphilitic taint, and behaved in all respects like the ordinary venereal chancroid. It was, however, found that when the superinduced irritation subsided, and the secretion was no longer purulent, it was no longer auto-inoculable; and hence it became evident that the property of inoculability was consequent upon a peculiar action resulting from the persistent irritation of an already diseased surface. The fact that the chancroid could be established upon persons entirely free from syphilitic taint, and not be followed by syphilis, demonstrated that its existence was not necessarily dependent upon the syphilitic principle. Experiments were then made by Pick, Bidencap, Koebner, Boeck, and others, to ascertain the effect of inoculations of pus from simple lesions on persons free from syphilitic taint. The result showed that affections in non-syphilitic persons which are of slight virulence, the secretions of which are not inoculable, can be made to produce an inoculable secretion by the application of an irritant. Kaposi states that in his experiments the pus taken from acne, and from scabies in non-syphilitic individuals, has produced pustules, the pus from which was inoculable in generations on the heated as well as on other non-syphilitic persons. In 1866 Dr. Edward Wigglesworth, Jr., of Boston (reported by Dr. Bumstead in his paper *On the Unity and Duality of Venereal Sores*, read before the Centennial Medical Congress of Philadelphia), while studying under Prof. Zeissl of Vienna, and being entirely free from any suspicion of venereal taint, but in somewhat impaired general health, inoculated his own arm with pus taken from a simple pustule of acne. This produced a similar pustule at each of the three points of inoculation. Pus from these being again inoculated, a third generation was established. Nine distinct sores, the result of the inoculations, were present at the same time, and, pursuing a similar course, finally healed, leaving as many distinct cicatrices, indicative of loss of tissue through the process of ulceration. This experiment during its progress was under the personal observation of Prof. Zeissl, and was repeatedly exhibited to his class as demonstrating the contagious and destructive properties of non-specific pus under certain circumstances unconnected with syphilis or with any venereal influence. Observations (personal) have shown that the muco-purulent secretion from non-specific nasal catarrh will sometimes produce excoriations of sound cuticle, and that contact with secretions from non-specific leucorrhœas will sometimes promptly cause pustular eruptions (*herpes*) of the preputial mucous membrane of the male; and these more or less rapid in development and progress according to the degree of activity of the inoculating secretion (in some instances so simple that they are scarcely more than sero-purulent vesicles, and in other cases observed so vicious that in appearance they do not differ at all from the typical chancroid), the secretion being also *auto-inoculable*, as proven by the occasional occurrence of similar lesions upon opposing surfaces.

Mr. John Morgan, of Dublin, in his work on venereal diseases (1873), cites numerous instances in which he has observed the typical chancroid to result from inoculation of the muco-purulent secretions of leucorrhœas in syphilitic women, upon other women, also subjects of syphilis. Vidal cites a case where pus taken from a pustule of simple ecthyma, in a patient suffering from typhoid fever, was promptly inoculable on the patient, but failed when inoculated upon a healthy person. It is therefore shown that the quality of pus is variable, according to the circumstances under which it is produced and the condition of the person upon whom it may be inoculated. That a low condition of the general system from any cause predisposes the healthy tissues to take on ulcerative action and to elevate the accompanying purulent secretion to a point of contagiousness. Lesions, especially of mucous membrane of the human genital apparatus of both male and female, are common under the circumstances peculiar to the venereal act. Inflammations of mucous membrane in the same locality are frequent, and characterized by muco-purulent secretions, often profuse and acrid; and this, too, when the subjects of them are in good general health and living under the most favorable hygienic conditions. When, therefore, it comes to be considered that the most frequent habitat of the chancroid is in localities where venereal excess and every kind of debauchery abound: when to this are often added the potent elements of syphilis and scrofula, hereditary and acquired, filth, and irregular living: and when (as has been shown by Fournier* and others) chancroid is found by far the most frequent in proportion to syphilis among the de-

* Fournier noted in his private practice, 82 cases, 282 chancres, in Hospital de Midi, 41 cases, 215 chancres, and the report of [illegible] the same [illegible] there 16 000 cases of venereal [illegible] were [illegible]

based and dissolute, the conclusion is inevitable that chancroid is, and of necessity must be, a self-engendered disease, possessing no specific virus, but acquiring its power for destruction and contagion through the stimulation and vitiation of benign natural processes.

The venereal ulcer or chancroid acquires its chief importance from its liability to be mistaken for, and treated as, the initial lesion of syphilis. The distinction between the two lesions at the outset is often impossible. The active characteristic of the chancroid is recognized as a necrosis—that of the syphilitic lesion one of growth or proliferation. The surface of a sore, then, may be the field of chancroidal action, while the living tissue beneath may be at the same time a centre of proliferation of syphilitic disease-germs, which are constantly gaining access to the general circulation through the contiguous lymphatic vessels. These germs may be originally deposited upon a simple abrasion or one already the seat of chancroidal action, or may possibly be subsequently inoculated through the breach of tissue made by the chancroid. If the former, the imposition of the secretion of a chancroid upon the same point, if the disease-germs have been freshly deposited, might cause their destruction, and thus leave only the chancroidal element; but once the syphilitic principle has extended below the surface and has entered a lymphatic vessel it has gone beyond the sphere of action of the chancroid. The only method of determining whether a given chancroid or other lesion, occurring after a suspicious venereal contact, is or is not to be followed by constitutional syphilis, is to reserve a final decision for a full month subsequent to the exposure. This course should be pursued even though during the interval the suspected lesion, possessing all the characteristics of the typical chancroid, should have fully healed. If during or after the month no hardening of the tissues composing the edge and base of the sore, nor, if healed, of the cicatrix, nor any enlargement of the adjacent lymphatic glands, can be discovered, then, and not until then, can the patient be assured that he has had an uncomplicated chancroid, and that no syphilis will follow. Those milder forms of ulcerative action which are just within the line of distinction between the simple so-called herpes and the chancroid are the most frequent to exhibit subsequent evidences of syphilitic infection. By reason of their inactivity they are less likely to destroy any of the germs of syphilis which may come in contact with their surface.

The frequent association of chancroid with syphilis will never lead to mistaken identity if it is constantly borne in mind that syphilis is always, in all its manifestations, a process of growth, of proliferation. The most scientific and critical examination of the products of syphilis, from the *initial lesion* to the *gummy tumor*, has never been able to detect any abnormal material—nothing but excessive accumulations of tissue-building cells. Chancroid, on the other hand, from its inception to its cicatrization, is a process of necrosis—literally, *death* of tissue. So that *syphilis* and *chancroid* are always and only in relation to each other as *life* to *death*—each the highest type of its own peculiar action.

(To be continued.)

Red Cinchona as a remedy for habitual drunkenness is receiving considerable indorsement from English physicians. It is by no means considered a specific, but it is a useful adjuvant to beef-tea and good resolutions.

Progress of Medical Science.

Tannate of Pelletierine as a Tæniafuge.—The active principle of the bark of the punica granatum, discovered by M. Tauret, and described by him under the name of *pelletierine*, has been used with success as a remedy for tænia. It is given in the form of the tannate, in the dose of 50 centigrammes, followed in two hours by 30 grammes of castor oil. Dr. Laudrieu describes its action as follows:

In the two cases observed neither colic nor headache were occasioned. In the first the patient had been prepared by dieting, and a single dose sufficed to expel the tænia entire. In the second one dose did not suffice, it is true, but the patient was not weakened by the treatment. The patients did not exhibit that repugnance so constantly shown to the administration of kousso or the pomegranate bark. In a third case the administration of a dose of the chlorhydrate of pelletierine brought away 15 metres of worm, the only phenomena observed being diplopia and a slight tendency to syncope, both of which quickly passed off.

The pulse and temperature were not influenced by this medicine; nor were the kidneys in any way affected. The medicine seemed to have an elective and toxic action, operating solely on the tænia.—*Journal de Médecine de Bordeaux*, June 28, 1879.

On the Structure of Brunner's Glands.—Prof. Renaut, of Lyons, has made a careful microscopic study of the Brunner's glands of the human duodenum, and states that they are not, as generally believed, conglomerate glands like the salivary, but resemble rather the mucous glands of the œsophagus and bronchi. The specimens of intestine examined were removed from the body of a decapitated felon thirty minutes after execution, and while the heart was still kept beating by mechanical irritation. He found the glands in question arranged in two distinct layers, one being situated in the *muscularis mucosæ*, and hence in the deeper parts of the intestinal mucous membrane, and the other in the loose submucous connective tissue, in direct contact externally with the muscular coat of the gut. In structure each gland consists of a series of multifidous culs-de-sac, the lateral diverticula situated on a collecting tube opening directly into it without any contraction in diameter. The connective tissue framework of the glandular tube is disposed in the form of a spur at the junction of the secondary with the primary culs-de-sac. Prof. Renaut compares these culs-de-sac to the ramifying fingers of a glove, while the salivary glands, with which Brunner's glands have hitherto been considered analogous in structure, are most correctly compared to a bunch of grapes. In the salivary glands each acinus empties its secretion into an intralobular duct, which unites with others to form interlobular and interlobar ducts, the epithelium of each anatomical subdivision of the gland having its own peculiar characters. In Brunner's glands, on the contrary, each lobule is formed of from fifteen to twenty culs-de-sac opening one into another, without anything resembling intra- and inter-lobular ducts, and the epithelium presents the same characters in all parts of the gland. It is composed of clear prismatic cells, with a flattened nucleus crowded toward the base; the cells are longer than they are broad, are completely filled with mucus, and are entirely analogous to the cells of the muciparous glands of the œsoph-

agus, bronchi, and pylorus. The base of each cellule, however, is prolonged into a sort of minute cue, which is insinuated under the neighboring cell. The connective tissue forming the membrane of the gland presents minute projections, which embrace the bases of the epithelial cells. Prof. Renaut has not succeeded in demonstrating a subepithelial endothelium; on the contrary, the fixed cells of the connective tissue envelope are separated from the epithelial layer by a delicate transparent border, which remains untinged and contains no nuclei. The epithelium of the collecting tubes differs from that of the culs de sac only in the cells being a little flattened. These tubes open either at the bottom of a fold of mucous membrane or into a follicle of Lieberkuhn.

The glands of the external group form more voluminous masses, which are divided off into lobules and lobes, but in their minute structure they are identical with the glands of the internal group. The glands of the two groups often communicate through gaps in the muscularis mucosæ. Prof. Renaut states it as his opinion that Brunner's glands are destined for the secretion of a peculiar mucus, but not of any ferment. In support of this opinion, he adduces the absence of the zone of granular cells characteristic of glands that furnish a mixed secretion of mucus and ferment. He claims that these glands form, with the true mucous glands of the œsophagus and bronchi, which present the same fundamental characters, a natural, distinct, anatomical group, totally distinct from the group of conglomerate glands proper, the type of which is the parotid or submaxillary.—*Le Progrès Médical*, June 7, 1879.

A Case of long-continued Priapism accompanying Leukæmia.—Dr. Salzer, of Worms, reports the case of a man, 46 years of age, who suffered for seven weeks from persistent priapism. He had previously suffered from intermittent fever, but was at this time in apparent good health. One morning he was awakened by an intensely painful erection of the penis, that proved utterly rebellious to treatment. Leeches, warm fomentations, chloral hydrate, and even chloroform narcosis were tried in turn, but all without success. The urine was passed with difficulty, usually in short jets, and most readily in the knee-elbow position. Physical examination revealed only *marked enlargement of the spleen*. Finally, after the penis had been kept for three weeks constantly enveloped in strongly camphorated narcotic poultices, opium and camphor being administered internally at the same time, the priapism gradually disappeared, having persisted fully seven weeks. During the week preceding this attack, the patient had had two attacks of priapism, one of which lasted only a few hours, and the other twenty-four hours. After the appearance of the priapism the patient rapidly lost strength and acquired a cachectic appearance, and the spleen progressively increased in size. Two months after the priapism disappeared there was complete loss of sexual power, and the patient died about eight months afterward. The blood was not examined microscopically, and an autopsy was not permitted.

Dr. Salzer collates from medical literature eight cases of priapism occurring in connection with leukæmia. Various theories have been brought forward to account for the priapism in these cases. Kiernan ascribed it to extravasation of blood into the corpora cavernosa, and Longuet to impeded circulation in the smaller vessels and the formation of thrombi, resulting from the altered condition of the blood, while Neidhart thought that irritation of the nerves might possibly be the exciting cause. Dr. Salzer thinks that the rapid disappearance of the priapism in the two first attacks in the above case argues against the occurrence of an extravasation of blood. He believes that both the temporary and the persistent attacks of priapism were due to irritation of the nervi errigentes. It is well known that priapism may be produced both by peripheral and by central irritation of these nerves. As examples of the former, he adduces the erections accompanying inflammation of the urethra or of the neck of the bladder, swelling of the prostate, etc.; and, as examples of the latter, the erections of insane persons, or that follow injuries of the spinal cord. The priapism of leukæmia, he claims, differs from these varieties chiefly in its longer duration, and hence for its development some special cause must be sought. This may possibly be found either in the presence of anatomical changes in the nervi errigentes, or in pressure on them, ex. gr., by swollen lumbar glands.—*Med.-Chir. Rundschau*, June, 1879.

Treatment of Urticaria by Atropine.—In 1876 Dr. Fraenkel recommended the internal administration of atropine in the treatment of severe forms of urticaria. Dr. Schwimmer now reports three cases of this affection, which, after proving rebellious to all the usual methods of treatment, were rapidly cured by atropine. These three cases, however, show that the atropine treatment does not prevent relapses. Dr. Schwimmer believes that urticaria is simply an angioneurosis, and ascribes the efficacy of the drug to its action on the sympathetic system.—*Lyon Médical*, July 13, 1879.

Salicylic Acid in the Treatment of Lupus.—Dr. Ameglio reports a case of ulcerative lupus of the face, of five years' duration, in which he employed salicylic acid locally, after all the usual applications had proved ineffective. The ulcerating surface was painted three times a day with a solution of six parts salicylic acid in twenty parts glycerine. After a few days the readily bleeding vegetations withered, and the floor of the ulcer took on a healthy appearance; at the end of the month cicatrization was completed. The patient at the same time took arsenic internally.—*Gazette degli Ospedali*, and *Med.-Chir. Rundschau*, June, 1879.

Use of Pilocarpinum Muriaticum in Children's Diseases.—Prof. Weiss has studied the effects of pilocarpine in fourteen children suffering from nephritis, with general dropsy, following scarlatina. In four of the cases there existed, also, extensive bronchitis, in two diphtheria, and in one pneumonia of the left lung. The medicine was administered hypodermically, four or five drops of ether being added where collapse was feared. The following are the author's conclusions: 1. Pilocarpine has proved to be a very successful remedy for children suffering from nephritis and scarlatina. 2. In giving it to children, care should be taken to begin at first with small doses, which may later on be gradually increased. 3. If the little patients are very weak and likely to collapse after the injection, a few drops of ether should be added to the pilocarpine solution. 4. The drug produces a very copious and lasting secretion of sweat, such as no other drug has ever been known to call forth. It acts quickly. 5. In cases of bronchitis, complicated by dropsy, which often produces dyspnœa in children, the affection of the bronchi vanishes very soon after the remedy has been administered.—*London Medical Record*, May 15, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 6, 1879.

THE BRITISH MEDICAL ASSOCIATION.

We were favored with a report of the proceedings of the British Medical Association at the earliest date possible, and gave it to our readers in advance of the complete report as it appears in *The British Medical Journal*, the journal of the Association. It is gratifying to hear that the late meeting held in the city of Cork, Ireland, has left behind it so many pleasurable recollections. Nothing was left undone which could be regarded as likely to add to the convenience and the happiness of the guests, or to facilitate the business of the Sections.

One feature in the general management of the Association, during the annual meeting just held, is worthy of special mention, and we hope it may find its exact counterpart in the next Annual Meeting of the American Medical Association to be held in this city. It is this: the whole of the numerous meetings, committees, and sections of the meeting, were provided for under one roof. None but those who have attended the meetings of such Associations can fully appreciate how much such a convenience contributes to the actual scientific work done by their members.

We are pleased to learn of the financial prosperity of this Association, and we are also happy in receiving the information that its prosperity is largely due to the aid afforded by a well-managed medical journal, which circulates weekly nine thousand copies. The Honorary Treasurer made the satisfactory announcement that the excess of assets over liabilities at the close of the year—embracing income from all sources—amounted to upwards of six thousand pounds.

We have reason also for good feeling in the fact that the Association, through its journal, acknowledges that the working value of the meeting and the distinction of the gathering was increased by a considerable number of scientific guests from "other lands," who brought with them important contributions of new knowledge, and a weight of reputation and international character. Among the distinguished visitors from this country, whose names were not mentioned in our report, we notice Drs. E. G. Loring and C. E. Agnew, of New York, and Dr. Wm. H. Byford, of Chicago, who gave to the Association valuable accessions of scientific work.

The meeting itself is a testimony to the united spirit which the whole profession, both in the new and in the old world, begins to feel, and we hope that the smoking flax will not be quenched.

The American Medical Association holds its next Annual Meeting in the city of New York, a point easy of access from all parts of the world, and we believe we speak the sentiment of the profession of this city and of this country when we say, we hope that to American physicians and surgeons may be accorded the privilege of greeting distinguished visitors from the old world, more numerous than those from the new world who have just been made the recipients of the hospitalities of the British Medical Association.

But we wish to acquaint our readers a little more extensively than has been done in our report with the scientific work of the Association. A sketch of the address in Surgery by Mr. Savory has already been given. It was largely devoted to the question of antiseptic surgery, and as that is the topic of the day, the remarks of one who has had immense experience in one of the largest hospitals in Europe are worthy of a more extended reference than they have received.

It has been the great theme of surgery to prevent blood-poisoning after wounds and operations, and, says Mr. Savory, "a splendid struggle now goes on through England, Europe, and the civilized world to reduce the mortality from this cause after operations to the lowest possible terms." The chief glory of surgery during the past twenty years has been the great advance which has been made in all its processes, and now the question arises, How has this result been secured? Mr. Callender, one of England's able surgeons, during his last visit to this country, spoke to our medical students and to our surgeons of the details of the dressing of wounds and the management of the patient after undergoing a surgical operation, so that the least possible shock should be given to the system, and the least possible disturbance to the processes of repair. We were all favorably impressed with the exceeding simplicity and yet great value of his surgical advice. He depended upon careful attention to the details, prior and subsequent to the operation, rather than a formidable array of steam-boilers, glistening instruments, and elaborate apparatus to give him the best possible results. Mr. Savory, in answering the same question, also says that the advance has been secured by "increased care and attention to all the details of the dressing of the wound; the state of the patient's health, the selection of the operative procedure, the surroundings of the patient,

and especially by a comprehensive study of the difficulties which each surgical case presents." While Mr. Savory does not reject Mr. Lister's plan, he assumes what seems to us to be a very sensible position, namely, that the attention of surgeons has been too exclusively fixed upon what is called "antiseptic surgery," and that the importance which belongs to other matters has been overlooked.

We have often been impressed with the question, and it seems that the attention of others has been turned in the same direction, Why do open wounds heal so kindly, if it be true that the atmosphere is laden with deadly germs which are ready at all times to enter and develop blood-poisoning? The truth is, so far as we have been able to ascertain, that no physical proof of the germ theory has been given, and it is this fact, perhaps, which has led the strongest advocates of the Lister plan to persistently avoid the challenge to show by actual comparison how far their results are really superior to those obtained by surgeons who do not adopt the method of treatment.

"The foul and ugly mists of vapors that did seem to strangle him" may with propriety be reduced by a "twenty per cent. of carbolic," and "upon my life, it will do well," but as one of our able contemporaries puts it, we do not believe that bigotry or stupidity is shown in requiring experimental proof of the superiority of the practice before admitting the exclusive claims of the antiseptic method.

To the knotty points in this question Mr. Savory turns his attention, and discusses them with the ability of a master in the art. He does not evade the following question: Are there classes of cases which can be treated successfully by Lister's method, and not by simple treatment? but gives us this answer: "I take leave to doubt whether these assertions are borne out by facts. In my humble opinion, operations are sometimes performed, both with this method and otherwise, which in any case had better be left undone; but I believe that patients have escaped with life after operation as full of risk to it, with other methods as with this. But this sort of statement, because it admits of no direct refutation, is never wanting in favor of any novelty. Has any new plan of treatment ever been proposed unsupported by abundant illustrations of its excellence?"

It might seem at first that Mr. Savory's address is an attack on Listerism; but it cannot, in justice to its author, be so construed, because he pursues an independent line of argument to show that, in hospital surgery, the best results have been obtained by the simplest means. It may be said, and with a certain degree of truthfulness, that operations are now undertaken, such as opening into the knee-joint, into the abdominal cavity, and are safely performed under complete antiseptic precautions, that, previous to the introduction of the system, were approached with very great timidity. Yet it is equally true that some surgeons, especially in this country, habitually practised opening large joints—the safety, as they claimed, depending upon the manner of performing the operation—many years antedating the birth of Listerism. However, if there is no principle in the plan, and it is nothing more than a proper detail, it is worthy of observance.

In this instance, as in many others, there is a lack of authentic information upon both sides of the question, and it is this deficiency which renders it impossible to form an abiding judgment. "There is need of more definite information on many of the most essential points of surgical treatment, and in particular for that full and definite comparison between the results of antiseptic and of ordinary surgery, which has been so long asked for by those who are neither enthusiasts nor opponents of the method, but who want to do their duty to their patients."

Mr. Savory's address has already attracted the attention of the advocates of Listerism, and a correspondence has appeared in the *Lancet* from the pen of J. Greig Smith, Surgeon to the Bristol Royal Infirmary. It seems quite probable that the address will give rise to an extended discussion.

The saving of human life should be made the essential element in the great art of medicine and surgery.

VIOLATION OF THE CODE.

Scarcely a week passes in which we do not receive one or more complaints or reminders that there has been an infraction of the code. There are those who feel aggrieved because medical men persist in lending their hard-earned and questionable fame to sustain the virtues of lager beer. There are others whose spinal columns arch at the fact that certain pseudo-eminent surgeons have become consultants to homœopathic hospitals; and there are still others, young in the profession, who have had a temporary attack of exophthalmos because some old and honored member of the regular school, and in good standing in his County Medical Society, has consulted with eclectics, homeopaths, and others of like ilk, and has allowed his name to enter the columns of the village newspaper in what seems to be an undignified, unprofessional, and under the aroma of the code, in an illegal manner. One young man, who recently graduated from a respectable medical college, where he listened to the old story of our "glorious and honorable profession," holds his hands up in horror at what his ears have heard, his eyes have beheld, and his warm heart has felt. He asks for advice. He is perplexed; he is annoyed; and, judging from his pathetic appeal for aid, he is disgusted. It is very evident from the tenor of all these complaints that violations of the code are eye-sores to the complainants; they are like a picture hanging askew on the wall.

For their comfort and encouragement it may be said that there is a way out of their embarrassment, which

perhaps may seem thorny, but it is narrow, direct, and will ultimately lead them to clear and unobstructed professional sailing. It is a time-honored principle in the practice of medicine to first, if possible, remove the cause of disease. This principle may be relied on in dealing with questions of medical ethics with the same degree of safety as in dealing with the manifestation of germs, infectious elements, or chemical compounds. Provisions have been made for the radical treatment of all such cases of individual indiscretion or personal attempt at setting at defiance established regulations, and the machinery for correcting the violations of which complaint is made is within the reach of the humblest physician. A court of inquiry and trial exists in each County Medical Society in the State, and from these an appeal can be carried to the State Medical Society, and it is fair to presume that when a case of direct violation of the by-laws and the constitution of these societies or of the code of medical ethics is presented, that each offender will receive the attention he merits. Let the offended promptly complain before the local tribunal; let the local tribunals be thorough, impartial, energetic, and scrutinizing in sifting the evidence brought; and let the higher authority be honorable and uncompromising in establishing the ends of justice, and there will be far less cause for murmuring than at present seems to exist. This is a method of removing these excrescences which is effectual, direct, and radical, and we will add that it is the duty of those who live in the midst of such abnormalities to set their own house in order, and be as faithful in cleansing it as though they had been exposed to the virus of yellow fever. Thorough purgation in the present instance first, and disinfectants afterward.

HONOR TO DR. LONG.

We furnish our readers a brief correspondence relating to the presentation of a portrait of Dr. Crawford W. Long to the Georgia Legislature, in Atlanta, August 22, 1878. A few years ago Dr. J. Marion Sims revived the discussion upon the discovery of the anæsthetic properties of sulphuric ether, and gave the credit to Dr. Long, who, at the time the discovery was made, was a resident of Jackson Co., Georgia. The movement initiated by Dr. Sims has culminated in the presentation of a fine portrait of the discoverer to the Alumni Association of the University of Georgia, which, in turn, presented it to the Legislature of the State of Georgia, and it is to be retained in the Hall of the House of Representatives.

The movement has already given rise to discussion, and it may be that this whole subject will again be brought before the profession and the world.

A New Medical School is to be established in Edinburgh in connection with the new university. The buildings are now being erected.

Reports of Societies.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Third Annual Meeting, held in the City of New York, August 26th, 27th, and 28th, 1879.

Tuesday, August 26th — First Day. — Morning Session.

The Association met at Park Avenue Hotel, and was called to order by the President, Dr. L. A. Duhring, of Philadelphia.

At 9.30 A.M. a business meeting was held at which the Report of the Council was presented, the Nominating and Auditing Committees appointed, proposals for active and honorary membership made, and miscellaneous business attended to. There were present during the sessions of the Association the following members: Drs. Louis A. Duhring and Arthur Van Harlingen, of Philadelphia; I. E. Atkinson, of Baltimore; J. N. Hyde, of Chicago; W. A. Hardaway, of St. Louis; C. Heitzmann, R. W. Taylor, L. Duncan Bulkley, H. G. Piffard, George N. Fox, and Frank P. Foster, of New York; J. C. White and Edward Wigglesworth, of Boston, and S. Sherwell, of Brooklyn.

The first thing on the regular programme was the address of the President, Dr. Duhring, which showed great labor in its preparation, and the subject of which was

THE RISE OF AMERICAN DERMATOLOGY.

In tracing the history of the science he gave an exhaustive résumé of all the earlier literature on the subject, and afterward a chronological narration of the establishment of all chairs devoted to the subject in the principal colleges and of special institutions for skin disease, as well as of the skin departments of the various large hospitals and dispensaries. Among the works referred to are the following: "A Brief Guide in the Small-pox and Measles," by Thomas Thatcher, which appeared in 1677, and is believed to have been the first medical book ever published in this country. The author of it was well known, not only as a learned physician, but also as a divine. A work on Cancer by Lieut.-Governor Cadwalader Colden, a man of great learning and high attainments, and also author of a volume on the Climate of New York, which is better known than the other. "An Essay on the Causes of the Different Colors of People in Different Climates," a long and elaborate treatise by John Mitchell, of Virginia, which is said to have been the first work ever published on the subject. Dr. Mitchell was also the author of a brochure on yellow fever as it prevailed in Virginia in 1741. "An Essay on the Causes of the Variety of Complexion and Figure in the Human Species," by Samuel Stanhope Smith, President of the College of New Jersey (1787). The book attracted a considerable amount of attention in Europe, and contained an account of the case of the negro, Henry Moss, of Maryland, who during a period of twenty years underwent a change of color from a deep black to a clear and healthy white. "An Experimental Dissertation on the Rhus Vernix, Rhus Radicans, and Rhus Glabrum," an able and exhaustive work by Thomas Hanfield. A "Dissertation on Perspiration," by James Agnew, of Princeton, New Jersey (Philadelphia, 1800), an essay of unusual excellence. "On the Warm Bath," by Dr. Lochette, of Virginia. "The Lues Veneria: the Modus Operandi

of Mercury in curing Gonorrhœa," etc., by James Tongue, of Maryland, in which the author endeavored to prove that syphilis was not introduced into Europe from America, and that syphilis and gonorrhœa were two distinct forms of disease. "A Prospect of Exterminating the Small-pox," and a paper on the Cow-pox Virus, by Dr. Waterhouse, of Cambridge (1800). "The Jennerian Discovery," by C. R. Aiken. "The Structure of the Skin, with a View to the Diagnostics and Cure of Diseases usually denominated Cutaneous," a Boyleston prize essay by George S. Shattuck, of Boston.

On the second of June, 1836, the "Broome Street Infirmary for Diseases of the Skin" was established in New York, with Drs. H. D. Bulkley and John Watson as physicians in charge. The following year a course of lectures on Dermatology was given at the Broome Street School of Medicine, by Dr. Bulkley, who had fitted himself for the work in Europe, and this was the first ever delivered in America on this subject. About the year 1830 the Medical Department of the University of Pennsylvania came into possession of a large and fine collection of models of skin disease, which had been purchased in Europe by Prof. George B. Wood, and this was the first treasure of the kind that was ever brought to this country. In 1861 Dr. J. C. White, the honored ex-president of the Association, gave the first course of lectures on Dermatology in Harvard University, and shortly after the close of the war chairs in this department were established in all the medical colleges of New York, Philadelphia, and other large cities. The New York Dermatological Society, an organization which has exerted so marked an influence on the study of skin disease, was founded in 1869, with Dr. H. D. Bulkley as its first president.

The first regular paper was one by Dr. I. E. Atkinson on

A CASE OF INCOMPLETE VITILIGO.

The patient was a dark mulatto woman, twenty-five years of age, who had first noticed the affection under consideration four years before. Her skin presented peculiarities having the same relation to acquired leucoderma or vitiligo as the case described by Captain Burton, the African traveller, of which Beigel speaks, bears to congenital leucoderma, or albinismus. The trouble was very extensive: the back of the hands, the forearms, arms, neck, breast, abdomen, buttocks, thighs, and, indeed, nearly the whole surface except the face, scalp, and back being affected. These various portions were sure to be colored in different shades. First there was a dark one, which formed the ground color, and was the normal hue; then there was a still darker ring bordering the vitiliginous patch, and finally a central much lighter shade which involved an immense number of irregularly distributed, discrete and confluent spots. Upon the neck and breast these spots were comparatively few; but here, in addition, there were a number of vertically running atrophic striæ of an abnormally light color, such as are commonly seen upon fat persons and on the abdomen after pregnancy. There was no difference to the touch between the normal portions of the skin and that affected with the vitiligo, and the æsthesiometer showed that there was no deficiency of sensibility in the latter. Beyond some anxiety on account of the discoloration of the skin, the patient did not seem to have any subjective symptoms.

No result was produced by any therapeutic measures; but, curiously enough, it was noticed, while the case was under observation, that in certain portions of the body (notably the backs of the hands) there was first the complete absence of deficient coloration, subsequently the existence of the vitiligo, and, finally, its complete recession from these parts. The hairs, although not abundant anywhere over the surface, were not less numerous upon the affected spots of skin than in other portions of it, and remained unchanged in color.

Dr. White considered it a matter of importance that this restoration of pigmentation should have taken place under the notice of a reliable observer, and said that he believed it to be the first instance of the kind which had been recorded by such.

Dr. Taylor referred to the case of a Dr. Burdick, of Vermont, who has leucoderma of the hands every summer, which, however, begins to disappear as the cool weather of autumn comes on, and is entirely absent during the winter.

Dr. Bulkley stated that he had seen but one case of leucoderma in which the hairs remained entirely unaffected in color; and Dr. Fox remarked that he thought this case of Dr. Atkinson's explained many of the cases in which the disease has disappeared and reappeared, as well as those in which the hairs were in a variable condition. In the *complete* forms he was inclined to believe both that the hairs always turned white, and that no return of pigmentation ever took place. Of course it was always a difficult matter to say in any given case whether there was really a complete absence of pigment. One case which he had seen was of great interest, as it was one of combined melanoderma and vitiligo, there being *increase* of pigment before it began to disappear; and he thought that this was perhaps the general rule. After some further discussion by Dr. Sherwell and Hardaway, a paper entitled

A CONTRIBUTION TO THE STUDY OF THE BULBOUS ERUPTION INDUCED BY THE INGESTION OF IODIDE OF POTASSIUM,

was read by Dr. Hyde, of Chicago. The case which gave occasion for his writing it was remarkable not only in being an instance of a very rare affection, but also on account of the age of the patient, an infant at the breast eight months old. It had been troubled with chronic eczema capitis, and about a month before Dr. Hyde was consulted in reference to it, an immense number of boils came out upon its head. It was on account of the latter that the physician in charge ordered the iodide of potassium; the quantity taken being five grains a day. When the bulbous eruption known as hydroa made its appearance, he discontinued the iodide (although until the suggestion was made to him by Dr. Hyde, it had not occurred to him that this new difficulty was due to that cause), and it at once began to decrease. In view of the points elicited by a study of this and all the other reputed cases that he was able to collect, Dr. Hyde came to the conclusion that some of Tilbury Fox's opinions in regard to this disorder could only be accepted with reserve in the light that we can command upon the subject at the present time. The most valuable of the practical deductions to be made from his case, Dr. Hyde considered to be: That both in eczema and acquired syphilis, when a distinctly vesicular or bulbous eruption becomes suddenly apparent, the lesions intermingled with those characteristic of the disorders named, in the person of patients who have been under inexperienced practitioners, the possibility that the iodide of potassium has been previously administered should be carefully estimated.

A discussion of great interest followed the reading of this paper, and was participated in by Drs.

White, Taylor, Wigglesworth, Van Harlingen, and Duhring.

On motion of Dr. Bulkley the thanks of the Association were unanimously tendered the President for his able and valuable paper.

On motion of Dr. Wigglesworth, it was decided that the Association should devote the afternoon of Thursday, August 28th, to an inspection of such cases of interest as the various members might like to present, and on motion of Dr. Hyde, that a committee of two should be appointed by the chair to select a suitable place for the purpose, Drs. Bulkley and Taylor were the gentlemen selected to constitute this committee.

First Day—Afternoon Session.

The first paper in order was one by Dr. Bulkley on

TWO CASES OF CHANCRE OF THE LIP, PROBABLY ACQUIRED THROUGH CIGARS.

Both of the sufferers in these cases were physicians of skill and intelligence, and they were each entirely unable to trace their syphilitic trouble to any other source of infection than the above.

Dr. Heitzmann, in commenting on one of these cases which he had personally seen, stated that the sore in the mouth was to all appearances nothing but a chancroid, and that there was also a similar lesion on the penis, which had been caused by matter carried from that in the mouth by means of the hands. In view of facts like this, he thought that the doctrine of duality was no longer tenable, as, indeed, Hebra and other high authorities had long ago concluded.

Dr. Bulkley attributed the absence of hardening to the fact that at the time referred to by Dr. Heitzmann the patient had been taking mercury for three weeks; and he also stated that in his experience he had not found chancres on the lip so hard as those on the prepuce.

Both Drs. White and Taylor were of the opinion that the evidence which Dr. Bulkley had educed was hardly sufficient to prove that the two physicians whose cases he had related had become infected with syphilitic poison in the manner indicated. Dr. Taylor also stated that he was very much startled by Dr. Heitzmann's remarks on the subject of dualism. As for himself, he believed that as sure as there was a sun in the heavens, there were two forms of disease, and he then proceeded to mention some of the investigations by the most distinguished authorities, on which the so-called dualists based their opinion. After some further remarks by Drs. Atkinson, Wigglesworth, and Bulkley, Dr. Fox read a paper on

THE TREATMENT OF ECZEMA AND ULCERS OF THE LEG BY AN ELASTIC TUBULAR BANDAGE.

This bandage was to be applied by slipping it over the foot on to the leg, the limb having first been oiled; and among the advantages claimed for it were, its lightness, the equal pressure which it exerted, the saving of time and trouble (since it was not necessary to remove it in order to clean the parts), and its cheapness, due to the fact that so little rubber was required in its construction.

The third paper during this session was by Dr. Heitzmann, on

MICROSCOPICAL STUDIES ON INFLAMMATION OF THE SKIN,

in the course of which he stated that his observations had led him to the following conclusions:

First. In epithelium the first step of the inflammatory process consists in an increase of the living matter, both in the protoplasmic bodies and between them; the former producing the coarse granulations of the epithelia, and the latter the thickening of the so-called "thorns" in the current substance. Any particle of living matter both in the epithelia and between them, through continuous growth, may lead to a new formation of epithelia, with the termination in hyperplasia of epithelium. (Seen in psoriasis, squamous eczema, horny formations, etc.)

Second. In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis substance and reappearance of the protoplasmic condition. By this process and the new formation of medullary elements, which may start from any particle of living matter, the inflammatory infiltration is established. The sum total of the inflammatory elements, which remain united with each other by means of delicate offshoots, represent an embroynal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by reformation of basis-substance. (Seen in erythema, erysipelas, etc.) If, on the contrary, the new formation of medullary elements be profuse in new formation, connective tissue, or hyperplasia, will result. (Seen in scleroderma, elephantiasis, etc.)

Third. The plastic (formation) inflammation may be accomplished by the accumulation of a larger amount of serous or albuminous exudation in the epithelial layer (seen in miliaria, sudamina and herpes), or in the connective tissue of the derma (as in urticaria). In both instances complete resolution will ensue.

Fourth. Suppuration in the epithelial layer of the *rete mucosum* is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus-corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrix. (Seen in eczema matidans, impetigo, and pemphigus.)

Fifth. Suppuration in the connective tissue of the derma results from the breaking apart of the newly formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus-corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of this tissue. Suppuration of the derma invariably heals through a cicatrization. (Seen in abscess, furuncles, acne, ecthyma, and variola.)

ELECTION OF OFFICERS.

At the business meeting preceding the regular morning session on August 27th, it was voted that the meeting of the Association next year should be held at Newport, and the following officers were elected: President, Dr. Louis A. Duhring, of Philadelphia; Vice-Presidents, Drs. Edward Wigglesworth, of Boston, and W. A. Hardaway, of St. Louis; Secretary, Dr. Arthur Van Harlingen, of Philadelphia; and Treasurer, Dr. I. E. Atkinson, of Baltimore.

(To be concluded.)

The Moral Effect of Popular Beverages.—According to Dr. Boeck, of Leipsic, tea and coffee produce nervousness and peevishness, *e.g.*, the snappishness of the Chinese and the hypochondriasis of bibulous ladies; beer brutalizes, wine impassions, whiskey infuriates, but eventually unmans. Alcohols in general, when combined with a fat and flesh diet totally subjugate the moral nature. Chocolate alone is an innocent drink.

OBSTETRICAL SOCIETY OF LONDON.

W. S. Playfair, M.D., F.R.C.P., President, in the Chair.

(For The Medical Record.)

THE USE OF THE FORCEPS AND ITS ALTERNATIVES IN LINGERING LABOR.

The noteworthy debate inaugurated in the London Obstetrical Society by Dr. Robert Barnes has been continued. The fair and impartial discussion which this question has received at the hands of those thoroughly competent to speak upon the subject must carry with it practical and permanent benefit to the whole profession.

In the very able paper read by Dr. Barnes, the following propositions were presented as likely to give rise to an expression of differences of opinion:—1. In lingering labor, when the head is in the pelvic cavity, the forceps is better than its alternatives. 2. In lingering labor, when the head is engaged in the pelvic brim, and when it is known that the pelvis is well formed, the forceps is better than its alternatives. 3. In lingering labor, when the head is resting on the pelvic brim, the liquor amnii discharged, and it is known that there is no disproportion or only a slight disproportion, even although the cervix is not fully dilated, the forceps will generally be better than its alternatives. 4. In proportion as the head is arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility, and safety of the forceps becomes less frequent. 5. As a corollary from the preceding proposition, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for.

At the next regular meeting following that in which the paper was read, the discussion was opened by Dr. Edis, who remarked, with reference to expectancy, that unfortunately too much was expected of the patient and too little of her attending physician. Not infrequently is the woman, at the commencement of her labor—a really trying process that calls for an immense expenditure of muscular force—found without proper preparation, having for a long time, perhaps, had only disturbed sleep, partial digestion, and improper performance of body functions.

But, on the supposition that she is as well prepared as possible for her ordeal, there is much that can be done in seeing that an actual waste of her physical power does not occur. On this basis it was argued that the judicious use of the forceps was an aid which supplemented the defective efforts of nature, and that the medical attendant therefore should not look upon instrumental delivery as a *dernier ressort*.

So soon as there is any general evidence, as established by the condition of the pulse, power, and pains, that the woman has a task which she cannot readily perform, it is the duty of the accoucheur to prevent her from falling into powerless labor. Under such circumstances recourse may be had to the simple means of affording aid by external pressure over the uterus, which Dr. Atthill regarded as unscientific and calculated to be injurious, or by applying the binder; but these having failed to give prompt relief, the forceps should by all means, says Dr. Edis, be used in preference to ergot.

It has been a belief, extensively accepted, that a prolonged first stage of labor does not entail danger upon the mother and the child. Dr. Edis gave an emphatic negative of this proposition—regarding the woman as in the first stage until the os is completely dilated—and cited cases in confirmation of the view entertained. As bearing upon the treatment of such cases, Dr. Barnes asked, "Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri?" To this question Dr. George Johnston replied that in cases in which the liquor amnii had escaped at the commencement of labor, and before the os is fully dilated, the forceps are necessary and useful to avoid the danger to the mother which accrued from pressure of the child's head, especially if there is any delay with the head at the brim. Even though the membranes are not ruptured, the timely use of the forceps under such circumstances may save the woman's soft parts from inflammation and sloughing. Instrumental delivery at this stage certainly saves the child from the danger incident to compression of the placenta and consequent death from obstructed circulation. At the same time, Dr. Johnston is very strong in his statement that the application of the forceps and traction through an undilated os is justifiable only when such an os is dilatable. The conclusion reached by Dr. Johnston was that, in course of time, the forceps in skilful hands will prove to be of the greatest advantage in saving the life of both mother and child.

From November, 1875, to May, 1879, 3,958 women were delivered in the Rotunda Hospital, Dublin. From the experience which Dr. Lombe Atthill obtained during that period, as master in that institution, he thinks that no practitioner of experience should say that the forceps should not be used because the os is not fully dilated, although under such circumstances the instrument should be employed as rarely as possible. When the os is not fully dilated, Dr. Atthill objects to the use of the forceps, no matter where the head is, unless the condition of the mother calls for its use. He feels satisfied that the danger from the use of the forceps, before the os is fully dilated, is underestimated by some because they fail to distinguish between two very different classes of cases. In some cases the os is so soft and easily dilatable that delivery is effected with the greatest possible ease and safety, although a most unjustifiable procedure. The cases to which he refers are those familiar to every physician with any extended obstetric experience, in which a uterine pain will cause the os uteri to all but disappear, yet, as the pain subsides, the head speedily recedes and the os contracts to the same size as before. These cases, manifestly, are to be placed among those in which the os is dilatable, and in them the use of the forceps, by unanimous consent, is easy and safe, and may be justifiable. "But," says Dr. Atthill, "it is far different with another class of cases," and from this point he discusses the question with reference to an "undilated cervix" which often opposes delivery. The danger in attempting forceps delivery in cases of undilated cervix has induced him to avoid the use of the instruments, when possible to do so, until the os uteri is fully dilated. In cases, however, in which delivery is imperative before the os is dilated, he does not hesitate to use the forceps in preference to employing version, notwithstanding the obstacle to easy delivery which an undilated cervix may offer. His practice, then, is to use the forceps when the head is low and the os fully dilated; but when the os is not fully dilated, he uses the instruments with the greatest possible hesitation.

With reference to ergot its use is prohibited in the Rotunda—and abdominal compression and introduction of the fingers into the rectum Dr. Atthill regards as unscientific and most irksome both to the patient and practitioner. The use of the forceps before the os is fully dilated, where there is some difficulty of extrac-

tion, he believes does not contribute much to saving the life of infants.

The discussion was continued by Dr. McClintock, who confined his remarks to the use of the forceps in the high and the low operations. Dr. McClintock, like Dr. Barnes, cautiously and wisely avoids drawing fixed conclusions, and discards such statistics as we have as almost valueless. Contrary to the belief expressed by Dr. Edis, Dr. McClintock states, "It is one of the most generally true maxims in midwifery, that so long as the membranes are entire and the liquor amnii present, no danger will accrue to either mother or child by the continuance of the labor process, except from convulsions or hemorrhage."

It is important, therefore, in speaking of the first stage of labor, to bear in mind the presence or the absence of the liquor amnii, as all readily admit that the use of the instruments in this stage, in purely lingering labors, is especially influenced by the absence of the amniotic fluid. Dr. McClintock, in opposition to the practice of Dr. Johnston, entirely dissents from using the forceps while the membranes are intact. In his estimate of the value of the forceps in the high operation, he agrees mainly with Dr. Barnes in the statements that the necessity for this operation is not frequent; that it is not without danger in skilful hands; and that extra judgment and skill are required in deciding upon and carrying out the operation when the head is high above the brim, and the os uteri is only imperfectly dilated. Under the last circumstances he entirely disapproves of the use of ergot. But when the head is in the pelvis, and there is no mechanical obstacle to its expulsion, ergot in his hands has acted most satisfactorily, and, in opposition to the statement made by Dr. Barnes, he does not object to its use. His position is that it does the child no harm if it does not produce uterine contraction; if it does excite the uterus to action it involves danger to the child, to be sure, but it expedites labor to such an extent that timely interference rescues the child, hence it is preferable to the forceps.

This is the position assumed by a man of deserved reputation and great experience, and yet it carries with it an element of danger which needs careful watching, and the forceps may be required to effect a safe escape. This Dr. McClintock recognizes, for he says that if the drug fails to deliver prompt enough, the accoucheur is just as capable of delivering with the instruments as if it had not been given.

With reference to the low operation he believes that, notwithstanding the too frequent use of the forceps at the present time, the policy of procrastination formerly employed lacks the advantages which obtain in the more frequent use of the instruments.

Dr. Bassett agrees substantially with Dr. McClintock regarding the use of ergot, and thinks the charge against the drug has been somewhat overdrawn. If the ergot fails to produce the desired result—prompt delivery after the head has reached the floor of the pelvis, if there is no mechanical obstacle—the forceps can at once be employed.

Although the os—he makes no discrimination between os and cervix—is only partially dilated, he thinks less harm will come to the patient by the use of the forceps if the operation is prudently undertaken, than if other methods of treatment are employed.

In speaking of the resistance offered by a rigid cervix uteri to the progress of labor, Dr. Henry Bennett holds that it is always due to pathological conditions, such as chronic inflammation; hence the inutility of many of the agencies resorted to for overcoming it.

A former assistant-master of the Rotunda Hospital, Dr. Cranny, holds that there are many cases in which the necessity for the early use of the forceps exists, especially to prevent undue exhaustion, and sloughing and its consequences, but the suitable cases are those in which the os uteri is dilatable and soft, and the cervix is not rigid. The safety of this rule is apparent, and it conforms to views held generally by those who participated in the discussion.

Throughout the discussion there is the same notable absence of statistics bearing upon the condition of the woman subsequent to instrumental delivery, as was manifest at its commencement. The statistical information given bears upon the life of the mother and the child. Under this head Dr. Cranny refers to statistics to show that the early use of the forceps has decreased the number of craniotomies, and has contributed to the saving of the life of the child.

One can readily see, however, that statistical information must be of the purest quality to be of practical value to the general practitioner who, in the same day, perhaps, may be called upon to operate for strangulated hernia, amputate a leg, treat a case of ophthalmia neonatorum, remove a foreign body from the ear, and deliver a child by means of the obstetric forceps; for rules may be framed out of statistical evidence and medical testimony that will, in the hands of one man, yield results not only highly beneficial, but entirely innocuous, while in the hands of another they will be equally dangerous and undeserving of adoption. The mechanician of only ordinary skill must be restricted by rules which for the expert are entirely unnecessary. Hence the difficulty in giving general rules for the guidance of the general profession, which embraces among its members a subsequent disputant who had attended lingering labors, during the last twenty-five years, in a maternity hospital, which he acknowledges is a small one, in which the patients did "very well" without the forceps, although the parturient process lasted perhaps two days.

Dr. Roper, in speaking of the application of forceps in the *first* stage of labor, that is, in cases in which dilatation of the os goes on slowly while it receives the pressure of the bag of membranes, or the presenting head, when the liquor amnii is discharged, remarked that he had not seen the absolute necessity of delivery by forceps when the os is only partially or even four-fifths dilated, in order to avoid serious consequences to the maternal structures and danger to the life of the child. In a case of simple labor, prolonged only by a physiological rigidity of the os uteri, Dr. Roper has not seen evil results from a protracted first stage of labor. Such results are not liable to occur for the reason that, even though the membranes be ruptured and the liquor amnii discharged, there is no continuous pressure. Persistent contraction and impaction of the head do not, says Dr. Roper, occur in connection with the first stage of labor.

From Dr. Collins' and Dr. Roper's experience we derive the practical observation that "the death of the child, as a rule, precedes injury to the maternal structures," so that if the fœtal heart can be heard it is presumptive evidence of the safety of the soft parts of the mother.

If this be true, it seems to us that some other explanation must be given for the frequent occurrence of vesico-vaginal fistule than that which, in this country at least, has a somewhat general recognition, namely, delayed delivery after impaction of the head occurs; for this lesion exists in numerous cases in which the child was still-born.

With reference to the frequent use of the forceps in

the first stage of labor only when the os is dilatable, seems, according to Dr. Roper, to be unnecessary, because the head of the child will soon expand it and allow delivery to take place. He also disapproves of the practice of carrying the obstetric forceps to every case of labor, and using the instrument without the existence of any factors of difficulty, simply for the purpose of diminishing maternal suffering. For he believes that such practice carries with it risks of liability to post-partum hemorrhage, and the gynæcological work that follows interference with the natural functions of the uterus in child-birth.

In speaking of the use of the forceps in the *second* stage of labor, he gives the result of his observations in two classes of cases:

First, those in which everything seems to be favorable to a quick delivery; the soft parts are lax, the child's head lies loosely in the pelvic cavity, and the labor is protracted simply through uterine atony. Such cases he believes always terminate naturally by expectancy; but if importunities of friends, or other apparently uncontrollable circumstances force a forceps delivery, it should be accompanied by the subcutaneous injection of ergotine. He uses ergot, not as an alternative of the forceps, but as an adjuvant.

In the *second* class of cases the features of the labor are just the opposite of those just described; the women are usually primiparous, the uterus acts powerfully, the pains are frequent, regular, and of an expulsive character, and the expulsion of the child is resisted by the tonicity of the soft parts of the outlet of the parturient passage. Every obstetrician can recall such cases, in which the head, with every pain, is forcibly crowded against the soft parts, the perineum becoming distended to the thinness of parchment, and yet it does not pass over. The pain ceases, the head retreats, all tension is relieved, the placental circulation is restored, and then another pain comes, and so the case goes on, nature admirably using the force, little by little, which is to relax the rigid soft parts and mould the fœtal head. So long as the uterus continues to act forcibly and rhythmically, the indication for the use of the forceps has not arrived, but when warned by less movement of the head, by less forcible uterine contractions, the instrument should be used, and not allow the labor to come to a cessation. Experience teaches the obstetrician to anticipate such a dead-lock, and to resort to artificial delivery before the crisis arrives.

An important feature of Dr. Roper's remarks is the statistical argument which he makes against the frequent use of the forceps, based upon the practice in the Rotunda Hospital during the masterships of Dr. Collins and Dr. George Johnston. The former used the forceps but very rarely, 1 in 608; while the latter employed them very frequently, 1 in 10; and the results seem to prove that the frequent use of the forceps does not tend to save the life of either the mother or the child. As already stated, however, statistics are so liable to be varied by uncontrollable influences, that arguments based upon them must be looked upon with suspicion.

Dr. Braxton Hicks gives a prompt and affirmative answer to the question, "Does lingering labor occur, so as to entail danger to the mother and child during the first stage of labor?"

The cases in which he recognizes this danger are those attended by trismus of the uterus, the fœtus being held for a long time after it should have been delivered. It is in such cases that he admits the use of the forceps even before dilatation of the cervix, but holds the reserve that "how often" is a matter of further consideration. He believes that death is not likely to occur in a woman from simple detention in the first stage, so long as the pulse remains of normal frequency, and that interference under such circumstances is apt to be followed by such complications as retention of the placenta, lax uterus, and hemorrhage; at all events, there need be no fear or dread that the woman will die of exhaustion. When, however, a condition of trismus is developed, and the uterine contraction passes into the interval between uterine pains, the time for interference has arrived, and then the milder alternatives, opium, slight anæsthesia, may be tried, certainly not ergot, and if these do not produce relaxation resort should be had to traction.

With reference to the second stage, he puts a hypothetical case; suppose the uterus to be at work, the pains at the maximum, and an obstacle occurs; then if it is known that a small amount of traction will bring the child out quickly, he believes it to be beneficial to the mother and certainly to the child to abstract it gently and quietly, but to draw out the child when the uterus is not responsive is one of the most critical things that can be done. He assents to Dr. Barnes' fourth proposition. Dr. Cleveland assents to the same proposition with its corollary, believing that it means that the operation shall not be lightly undertaken. He is of the opinion that it is pretty generally accepted that when the head is well in the pelvis, no progress is being made, no obstacle exists, and the obstetrician is satisfied that the uterus has done its best, the forceps is better than any of its alternatives. He favors the employment of the long forceps, and while he regards it as rare indeed that an operation is required for a purely lingering labor, he does not believe that mischief is likely to accrue to the woman by the skilful use of the instrument, if necessary to employ it. He uses the long forceps for the reason that there are cases in which the arrest is above the brim, and although the os is not well dilated, service is done by the use of the instrument, while to wait until the head comes within reach of the short forceps is positively detrimental.

Dr. Daly, from an experience obtained by an attendance in 1,700 private cases, reaches the conclusion that when the head is below the brim of the pelvis there need be no limit to the frequency with which we may apply the forceps, so as to save the suffering woman from unnecessary pain, without increasing in any degree the risk to mother or child.

Dr. Graily Hewitt agrees with Dr. Hicks, and answers in the affirmative the question: Does lingering labor occur so as to entail danger to the mother and child during the first stage of labor? Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri? In answering this question Dr. Hewitt turned attention to the definition of the termination of the first stage of labor, an important point, and one overlooked by the speakers by whom he was preceded, and although he does not give a direct definition himself, yet we are left to infer that it is marked by a dilatable os, and without special reference to the position of the head. With very few reservations, he believes that when the membranes are unruptured, the first stage may be allowed to go on a considerable length of time. With reference to the broad question as to the use of the forceps, Is it a good thing that the forceps should be largely employed, or is it proper that their use should be greatly restricted? he sympathizes with those who contend that the instruments should be largely employed, and he encouraged the use of the forceps much more frequently than has been the cus-

tom; for the dexterity which should be acquired in the performance of the simpler operations will invariably lead to qualifications sufficient to allow dealing with the difficult and dangerous cases. Another important point brought out by Dr. Hewitt was that it did by no means follow that, after the application of the forceps, the delivery should be made to occur as rapidly as possible. By instant extraction much mischief may be done, for the instrument is intended simply to supplement nature.

Dr. Swayne's experience leads him to three conclusions: *First.* That the use of the forceps is proper and safe before the os is fully dilated, when there is any arrest which prevents it descending upon the os uteri; but in his opinion the use of the forceps is improper when the delay arises simply from rigidity, and not from arrest of the head. *Second.* In cases in which the head is arrested at the brim of the pelvis, and the pelvis is normal and not irregular in shape, as a general rule the forceps is preferable to turning. *Third.* When the pelvis is irregular, and the head very high above the brim, turning is preferable to the forceps.

The President of the Society, Dr. Playfair, again pointed out what he has always directed attention to whenever speaking of the use of the forceps, namely, that instrumental interference should be resorted to with frequency only in one particular class of cases, and that is, the cases in which the head is arrested low down in the cavity of the pelvis or on the perineum, and in which only a slight *vis à tergo* is required to effect delivery. The high operation he regards as one to be approached with the very greatest hesitation. With reference to ergot as an alternative he thinks there is hardly any fact in medicine more certainly proved than the immeasurable superiority of the forceps in effecting delivery in retarded labor. Dr. Playfair also speaks strongly in favor of the use of the forceps to relieve the woman of hours of horrible suffering.

According to his experience the cases in which it was necessary, or even contemplated, to use the forceps with an undilated os, are of very great rarity. Again, regarding systematic pressure to the uterus, he did not agree with Dr. Roper, but believed that the very greatest possible advantage may be obtained from it.

In closing this most important and useful discussion, Dr. Barnes alluded to one or two points upon which there was a unanimity of opinion, and their reproduction will be of value.

The head of the child should not be allowed to remain in the pelvic cavity very long. To this there was a general assent. At the same time, Dr. Barnes thought it not good practice to put in the forceps as soon as the head is within reach, as recommended by Dr. Daly, and some others. So long as the uterus is acting fairly without spasmodic action, the head advancing slowly and the parts relaxing, and it is evident that the woman will be delivered within a few hours without notable tax upon her powers, and so long as the pulse is quiet and regular, the use of the forceps is not judicious.

With reference to ergot, the majority of those who participated in the discussion disapproved of its use to terminate a lingering labor. Dr. Barnes was especially emphatic upon this point, and while he admits its use when the head is nearly on the point of being born, he believes that in any of the higher cases it will not do anything which cannot be done more effectively and more safely by the forceps.

Three eminent gentlemen—Dr. Hicks, Dr. Hewitt, and Dr. Barnes—agree that lingering labor occurs in the first stage of labor, and in those cases expectancy is bad if trusted to alone. In such cases Dr. Barnes allays the muscular spasms of the uterus by the use of nitrite of amyl, puts in the forceps and delivers the woman. He says that this remedy is superior to either chloroform, chloral, or opium, which are valuable in the order named. In conclusion, he remarks that the utility, the necessity, and the safety of the forceps becomes less frequent as we ascend above the pelvic brim; but in the use of the instrument we have not advanced so far as to realize the scientific dream of Dr. Tyler Smith, that craniotomy is on the point of abolition. Craniotomy, however, as an alternative of the forceps, will diminish more and more as skill is acquired in the use of the forceps, and as the instrument is improved and given more power.

Notwithstanding the immense value of the forceps, it must not be forgotten that it is an instrument that is liable to great abuse, and the thanks of the profession are due to Dr. Barnes for inaugurating a discussion upon so practical and important a subject.

Correspondence.

THE PORTRAIT OF CRAWFORD W. LONG.

ITS PRESENTATION TO THE GEORGIA LEGISLATURE, IN ATLANTA, ON AUGUST 22, 1879.

ADDRESS OF SENATOR GORDON IN BEHALF OF THE DONOR, MR. H. L. STUART, OF NEW YORK.

(Special correspondence of THE MEDICAL RECORD.)

AT an early hour on Friday, August 22, 1879, the galleries of the House of Representatives of the Legislature of the State of Georgia were filled with a brilliant assemblage of ladies and gentlemen, to witness the ceremonies of the presentation of the magnificent portrait of Dr. Crawford W. Long, a native of Georgia and the discoverer of the anæsthetic properties of sulphuric ether.

The painting is pronounced by competent observers a magnificent and faithful specimen of art portraiture, and seems a living reality to those who knew best the calm, thoughtful face of the physician whom it represents.

It is the generous and noble gift of Mr. H. L. Stuart, of New York, and was presented through Hon. J. B. Gordon, a member of the Alumni Association of the University of Georgia, and United States Senator.

At 11 A.M., General Gordon, Governor Colquitt, Senator Hill, and others, escorting the female relatives, wife and daughters of Dr. Long, entered the hall, preceded by the Senate in a body.

Speaker Bacon introduced General Gordon, who prefaced his presentation address by the following letter, read by the Clerk of the House:

"NEW YORK, August 12, 1879.

"HON. J. B. GORDON.

"DEAR SIR:—Will you do me the favor, as a member of the Alumni Association of the State University of Georgia, to present in my name the accompanying portrait (painted by F. B. Carpenter) of Dr. Crawford W. Long, a late member of this association, and the demonstrated discoverer of surgical anæsthesia by the use of sulphuric ether, March 30, 1842; to be placed in the Capitol of the State of Georgia, under their control and supervision.

"I desire to do this in honor of the memory and just fame of this eminent physician and useful citizen, to make his record complete as the discoverer of anæsthesia.

"Providence seems to have intervened to prevent the final settlement of this vexed question until the claims of this modest, unpretending, and gifted man, who really made the discovery, were fully demonstrated by Dr. J. Marion Sims, a native of South Carolina, also a discoverer and a benefactor of humanity scarcely second to Dr. Long himself. His labors in Alabama, which led to the founding of the Woman's Hospital of the State of New York, have also resulted in giving him a world-wide fame as surgeon and investigator.

"It is fitting that these two eminent southern men should both be represented, as they are, in Mr. Carpenter's picture.

"Very respectfully and faithfully your friend,

"HENRI L. STUART."

The words of the gifted senator were eloquent and soul-stirring, and would that the space allotted us permitted of their entire reproduction. We must, however, only select such as seem to us to be the choicest sentences.

"I am here to ask your acceptance of that trust as a feeble and too tardy recognition of that great discoverer's claims to the homage of his countrymen and the gratitude of mankind.

"It so happens that we are indebted mainly to Dr. Marion Sims, also now a resident of New York, a native of South Carolina, himself a benefactor through his discoveries, for the final and almost unquestioned recognition of Dr. Long as the real discoverer of anæsthesia, a science which may be defined, if the medical fraternity present will pardon me, as the science of paralyzing the sensibilities of the human frame to physical suffering, without the destruction of human life—of relieving and almost annihilating the extremest pains to which man is subjected.

"It was thus reserved for one of our own fellow-citizens to make this great discovery, and not only confer a signal triumph upon Georgia, but a blessing upon the human race, which is beyond the power of language to express or the imagination to conceive; an impartial history will abdicate its truest and its holiest mission, if it does not place the name of Crawford W. Long on the same scroll with those of the immortal Jenner, and John Howard, of England, the world-renowned philanthropist, or by the side of the imperishable names of any age.

"This recognition of Dr. Long as the discoverer of anæsthesia, I repeat, has been too long delayed, if it could have been otherwise; and Dr. Long must have so felt it. It is true that other great discoverers have lived and died without witnessing or even anticipating the best results to flow from their discoveries to the world. Franklin, for instance—the far-seeing Franklin—as he sent his little kite flying to meet the clouds and drew thence lightning to the earth and demonstrated its identity with electricity, little dreamed that he held within his grasp a mighty agent which was soon to become subservient to the will of man, to sweep around the globe at man's bidding, outstripping the sun in its flight, and bearing intelligence to man on its wings of fire. But not so with Dr. Long. As he stood, a modest, unpretending physician, in the county of Jackson, on that 30th day of March, in the year of Our Lord, 1842, testing his discovery upon his patient, he must have felt even then, in the very incipiency of his discovery, what a priceless boon he was about to confer upon the human race. And as, with eager eye and throbbing brain, he looked from the result of this experiment over the vast field of human suffering which lay before, he must have lifted his heart in thankfulness to God that He had permitted him to be so great an instrument in the alleviation of physical anguish.

. . . . . .

"In the name of truth then, of justice, of science, of humanity and of religion, I commit to your keeping, representatives of Georgia, the claims and fame of our fellow-countryman and humanity's benefactor, Dr. Crawford W. Long."

Senator Gordon was frequently interrupted during the delivery of his address by bursts of applause.

Speaker Bacon then introduced Representative Benjamin C. Yancey, who received the portrait on behalf of the Alumni of the University.

Mr. Yancey reviewed at some length the history of anæsthesia by ether, a summary of which is contained in the following sentences:

"But the historic facts show that Dr. Long's claim antedates Wells's by two years and eight months, and Morton's by four and a half years, and that we are justified, on the basis of truth, to make this public recognition to-day. I am indebted for most of these facts to the pamphlets of Dr. J. Marion Sims and Dr. J. M. Taylor, of Mississippi."

He then paid an elegant compliment to the donor, after which he read a poem written by one of Dr. Long's daughters soon after the death of her father, which seems filled with the spirit of prophecy. One of the verses reads as follows:

Bright shining through the trees the sunbeams play
And gild the ground;
They glimmer on the tombs of those who lay
At rest around.
O'er thee, dear one! no stately column rears
Its lofty head;
Thy life, thy noble life, is all that cheers
Thy humble bed.
Though known to few, thy unrewarded fame
Was truly won.
Some day, thy nation's heart will proudly claim
Her gifted son.

The address of Mr. Yancey was loudly applauded by the cultured audience, and the event was a red-letter occasion in the history of the State, and its proceedings are embalmed in its records.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I cannot agree with Drs. Smith and Rockwell in their deprecation of the tone of the discussion at the late meeting of the Neurological Association, because of its admission of great differences of opinion among electro-therapeutists. It seems to me that if any question in science or art is a mooted one—is one about which there are legitimately great differences of opinion, it is far better to have that question freely discussed, and to have the differences of opinion, and the reason for those differences, clearly defined, than it is to throw a silence over honest doubts. Where there are clashing views the truth is not yet established, and it can only be brought fully into the light by careful observation and unrestrained discussion—observation to obtain facts, discussion to criticise them and their bearings. Dr. Smith would seem to believe, however, that the discussion had run upon settled questions, for he uses this strong language: "I have used electricity many times a day

for the past ten years, and have proven to my satisfaction that the pole used, the direction of the current, and the battery employed, are of great importance. This can be demonstrated beyond quibble or doubt *by any physician of ordinary intelligence*, by trying the different poles on the following diseases," etc. Let us inquire what other men think. Dr. Russell Reynolds ("Lect. Clin. Uses of Electr.," 1874, p. 18,) says: "It may occur to you to ask what current should I use to relieve pain and spasm, the direct or the inverse? All I have to say is, that so far as I have seen it does not make the smallest difference. Theoretically, it should make a very great difference, but practically, so far as my observations extend, it makes none." Benedict, of Vienna, expresses himself in this way: "I have convinced myself day by day that all the so-called facts in regard to the therapeutic efficacy of the different directions of the current are nothing more than theoretical assumptions." (Quoted by Teissier, "De la valeur thérapeut. des courants continus," 1878, p. 40.) Hitzig, Brenner, Chauveau, are equally sceptical in regard to the direction of the current—(they are all quoted by the last-named author). De Watteville, in his late work, which is the best extant, writes: "The anodyne and stimulant effects attributed to the positive and negative pole respectively are rarely realized in practice. In most cases it would seem that the curative effects are due more to the general influence of 'the current' properly applied, both as to strength and place, than to any specific action of pole. The same remark, it must be confessed, may frequently be applied to the direction." ("Med. Electricity," 1878, p. 39.) These gentlemen do not hold the same opinion as does Dr. Smith, and yet there can be found members of the profession who have regarded Russell Reynolds, Benedict, Hitzig, Brenner, Chauveau, and De Watteville as *men of ordinary intelligence*. Did your space not forbid it, Mr. Editor, other names could be cited.

I do not think that my position in this matter has been fully understood. I do not pretend to deny that in physiological experiments, in which a nerve or a muscle, or a spinal cord, or a brain, is laid bare, there is a difference in the direction of the current or in the poles; nor do I deny that in certain diseased conditions of nerve and muscle and spinal cord, there will be a difference *diagnostically* between the two poles; but I do deny that for *therapeutic* purposes there has been *proven* to be a difference between the poles or between the directions of the current, except in the case of the face and possibly the uterus. It is possible that these differences may exist therapeutically, but the evidence of them is very fragmentary and inconclusive.

I doubt, however, whether we shall obtain these differences with our present batteries in the limbs and the body, where the nervous and muscular structures, and the viscera, lie comparatively so deep and are covered by such thick structures, often bad conductors, as to necessitate great diffusion of the current. In the face, the facial and trigeminal nerves, and their foramina of exit, are so superficial that they approximate closely to the condition of the bared nerves and muscles of the physiological experiment, and the current can more readily be made to impinge directly upon them.

LANDON CARTER GRAY, M.D.

BROOKLYN, August 18, 1879.

THE AMERICAN PHARMACEUTICAL ASSOCIATION will begin its twenty-seventh annual meeting at Indianapolis, on Tuesday, September 9, 1879, at 3 o'clock P.M.

Obituary.

SAMUEL B. W. MITCHELL, M.D.

DR. MITCHELL died on Saturday, August 16th, at Spring Hill Station, Delaware County, Pennsylvania, in the fifty-second year of his age. He was a Philadelphian by birth, and graduated from the High School and the University of Pennsylvania, and later from the medical department of the University. At the breaking out of the war he served as surgeon in the Eighth Pennsylvania Cavalry, and was at the same time brigade-surgeon. He subsequently was appointed in charge of the cavalry corps hospital at Appomattox, on the James River, and continued in charge for some time. During his administration this hospital is said to have been one of the very largest, neatest, and best managed camp-hospitals in the service. Its efficiency and general thoroughness were attributed to the excellent executive ability of the surgeon in charge. Indeed, this very quality was said to have been one of Dr. Mitchell's most prominent characteristics during his army service. At the close of the war Dr. Mitchell returned to Philadelphia, and has since resided there. He retired from the practice of medicine some years ago. The funeral was solemnized with military honors.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 24 to August 30, 1879.

HEAD, J. F., Lieut.-Colonel and Surgeon. Relieved from duty in Dept. of the East, and assigned to duty as Attending Surgeon and examiner of recruits at Boston, Mass. S. O. 195, A. G. O., August 25, 1879.

CLEMENTS, B. A., Major and Surgeon. Relieved from duty in Dept. of the Platte, and to report in person to Surgeon-General of the Army. S. O. 195, C. S., A. G. O.

HORTON, S. M., Major and Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

BREWER, JOHN W., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TREMAINE, W. S., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

VICKERY, R. S., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding-General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

KIMBALL, J. P., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding-General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

HOFF, J. V. R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival there report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

ADAIR, GEO. W., 1st. Lieut. and Asst. Surgeon. Upon expiration of his present leave of absence, to

report in person to Commanding-General, Dept. of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

BROWN, P. R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival there report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

FINLEY, J. A., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to Philadelphia, Pa., and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TAYLOR, B. D., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Upon expiration of his present leave of absence, to report in person to the Commanding-General, Dept. of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

KILBOURNE, H. S., 1st. Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 30, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 23, 1879.	4	12	34	6	26	10	0	0
Aug. 30, 1879.	0	16	34	2	16	23	1	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from August 27th to September 2d, inclusive, was 164, and the number of deaths that occurred was 53. The total number of cases for this year to September 3d is 942, and the total number of deaths 270.

NEW ORLEANS.—A number of cases have appeared and a number of deaths have occurred from yellow fever in New Orleans, but strenuous efforts are being made both on the part of the local and the national authorities to stamp out the disease.

HAVANA.—Advices indicate that the disease is still prevalent, although only ninety-five deaths occurred in the week ending August 27th.

THE AMERICAN GYNECOLOGICAL SOCIETY. — The fourth annual meeting of the American Gynecological Society will be held in the city of Baltimore, Md., beginning Wednesday, September 17th, and continuing three days. The annual address will be delivered by Dr. T. G. Thomas, of New York. Mr. George W. Callender, of London, has accepted an invitation to be present at the meeting.

THE AMERICAN ACADEMY OF MEDICINE. — The fourth annual meeting of the American Academy of Medicine will be held in the rooms of the New York Academy of Medicine, 12 West Thirty-first Street, beginning Tuesday, September 16th, at 3 o'clock P.M. The annual address will be delivered by Dr. Lewis H. Steiner, of Frederick, Md., on "The Preparatory Education most Needed by the Medical Student."

THE NATIONAL BOARD OF HEALTH AND DISINFECTION.—The Commission of experts appointed by the National Board of Health have reported a circular embodying familiar instructions for disinfection. The committee consisted of Prof. C. F. Chandler, President of the Board of Health, New York City; Prof. G. F. Barker, of the University of Pennsylvania; Prof. Henry Draper, of the University of Maryland; Prof. John Ramsen, of Johns Hopkins University; Dr. S. O. Vander Poel, Health Officer of the Port of New York; and Prof. E. G. Janeway, of the Board of Health of the City of New York. On presenting the report Prof. Chandler, Chairman of the Commission, remarked as follows: "The people must be instructed that no reliance can be placed on disinfectants simply because they smell of chlorine or carbolic acid, or possess the power of permanganate, and that in general proprietary disinfectants with high-sounding names are practically worthless." The following is the report of the Commission:

"Disinfection is the destruction of the poisons of infectious or contagious diseases. Deodorizers are not necessarily disinfectants, and disinfectants do not necessarily have an odor. The disinfectants to be used are: First, roll sulphur for fumigation; second, sulphate of iron (copperas) dissolved in water in the proportion of one and a half pounds to the gallon, for soil, sewers, etc.; third, sulphate of zinc and common salt dissolved together in water in the proportion of four ounces of salt to the gallon, for clothing, bed-linen, etc. The commission exclude carbolic acid for the reasons that it is difficult to secure the proper quality, and it must be used in large quantities to be of service. In using disinfectants in the sick-room, the most available agents are fresh air and cleanliness. The towels, clothing, bed-linen, etc., should, on removal from the patient, and before they are taken from the room, be placed in a pail or tub of zinc solution, boiling hot, if possible. All discharges should either be received in vessels containing copperas solution, or, when this is impracticable, should be immediately covered with copperas solution. All vessels used about the patient should be cleansed with the same solution. Unnecessary furniture, especially that which is stuffed—carpets and hangings—should, when possible, be removed from the room at the outset; otherwise they should remain for subsequent fumigation and treatment. Fumigation with sulphur is the only practicable method of disinfecting the house. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with zinc solutions, should be opened and exposed during fumigation as directed below: Close the room as tightly as possible; place the sulphur in iron pans supported on bricks standing in tubs containing a little water; set it on fire by hot coals or with the aid of a spoonful of alcohol, and allow the room to remain closed for twenty-four hours. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms proportionately increased quantities. Cellars, yards, stables, gutters, privies, cesspools, water-closets, drains, sewers, etc., should be frequently and liberally treated with copperas solution. The copperas solution is

easily prepared by hanging a basket containing about sixty pounds of the copperas in a barrel of water. It is best to burn articles which have come in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows: Cotton, linen, flannels, blankets, etc., should be treated with the boiling zinc solution; introduce piece by piece, secure thorough wetting, and boil for at least half an hour. Heavy woollen clothing, silks, furs, stuffed bed-covers, beds and other articles which cannot be treated with the zinc solution, should be hung in the room during fumigation, their surfaces thoroughly exposed, and pockets turned inside out. Afterward they should be hung in the open air, beaten and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, and the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten. Corpses should be thoroughly washed with a zinc solution of double strength, and buried at once. Metallic, metal-lined, or air-tight coffins should be used when possible—certainly when the body is to be transported any considerable distance."

Proposed New Medical School in England — There is to be a new university in Manchester, England, called the Victoria University, which will in some respects supply the educational facilities to Northern England that the London university does for the south. It is proposed that a medical school be attached to it. This proposition, however, is not very warmly received by the existing medical colleges, of which there are nineteen in Great Britain. A protest was formally made against the project, signed by many eminent members of existing medical faculties.

The Public Health Association of Boston has been offered $200,000 by William E. Baker, on condition that half as much more be contributed by other parties.

Alcohol in Hospitals.—There is undoubtedly a great deal more alcohol used in hospitals than is necessary, and attention is now being called to the fact by some of those having charge of these institutions in England. The success of the three London hospitals in which its use is entirely prohibited, is leading to considerable discussion on the subject.

Matrimony and Insanity.—The statistics of the 8,407 patients in the lunatic asylums of Ireland, show that the unmarried were three times as numerous as the married. This would lead one to infer that the domestic life has a tranquillizing effect upon the Celtic mind.

Sanitation in Philadelphia.—The Board of Health of Philadelphia has compiled a series of practical Rules for the Management of Infants during the hot weather, prepared under direction of the Obstetrical Society. In addition, there are river-excursions and suburban sanitaria, so that the infant mortality is thought to be not so very great in spite of the intensely hot weather.

The Pathology of Pseudo-hypertrophic Spinal Paralysis.—In a clinical lecture upon this disease by Dr. W. R. Gowers, with a report of the autopsy, the following conclusions were given from a study of this and other reported cases. The pseudo-hypertrophic paralysis of early life is not a disease of the spinal cord; it is not, as has often been suggested, an infantile spinal atrophy similar to the common forms of progressive muscular atrophy (Cruveilhier's atrophy) of adults, with a modification in the muscle changes due to the peculiar conditions of nutrition in early life. The spinal cord after death shows various appearances, none of which are characteristic or common to all the cases. Dr. Gowers is inclined to the belief that it is a primary disease of the muscular tissue, "a congenital nutritive and formative weakness of the striated muscle substance." The remarkable relation of the disease to sex; its conspicuously congenital nature in many cases; its character as a disease of development, making its chief progress during growth; its remarkable origin from the mother—*i.e.*, from the ovum only—a condition almost unknown in diseases of the nervous system, are all facts which harmonize better with such a theory than with any other.—*Lancet.*

College Lecture Fees.—All the regular medical colleges in Chicago and Cincinnati have placed the annual lecture fees at $75, instead of ranging from $40 to $55, as heretofore.

Ulcer of the Rectum.—Dr. J. J. Fly suggests a very simple remedy for this trouble. It consists in washing the fundament and thoroughly cleansing the rectum with cold water after each evacuation to a point above the ulcer, then stuffing the rectum with dry tannin.—*Med. and Surg. Reporter.*

BOOKS RECEIVED.

A Manual of Midwifery for Midwives and Medical Students. By Fancourt Barnes, M.D. Aber., M.R.C.P. London. With Illustrations. Philadelphia: Henry C. Lea. 1879.

The Heart and its Diseases, with their Treatment. By J. Milner Fothergill, M.D. Second edition (entirely re-written). Illustrations. Philadelphia: Lindsay & Blakiston. 1879.

The Student's Guide to the Diseases of Women. By Alfred Lewis Galabin, M.D., F.R.C.P. Illustrated. Philadelphia: Lindsay & Blakiston. 1879.

A Treatise on Hygiene and Public Health. Edited by Albert H. Buck, M.D. In two large volumes. New York: William Wood & Co., 1879.

Materia Medica and Therapeutics. By Charles D. F. Phillips, M.D., F.R.C.S.E. Edited by Henry G. Piffard, A.M., M.D. New York: William Wood & Co., 27 Great Jones Street. 1879. Wood's Library of Standard Medical Authors.

Clinical Medicine: A Systematic Treatise on the Diagnosis and Treatment of Diseases. By Austin Flint, M.D. Philadelphia: Henry C. Lea. 1879.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-first Annual Session, 1879. Baltimore: Steam Printing House, 9 South Charles Street. 1879.

Atlas of Histology. Klein & Smith. Part VI. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

A Clinical Treatise on the Diseases of the Nervous System. By M. Rosenthal. Translated by L. Putzel, M.D. New York: William Wood & Co. 1879. Wood's Library of Standard Medical Authors.

Eyeball Tension and its Treatment. By W. Spencer Watson, F.R.C.S. Illustrated. London: H. K. Lewis, 136 Gower Street.

Pocket Therapeutics and Dose Book. By Morse Stewart, M.D. Second edition, enlarged and revised. Detroit, Mich.: George D. Stewart. 1878.

Guide to the Examination of Urine. By K. B. Hoffman and R. Ultzmann. Translated by F. Forcheimer, M.D. Cincinnati, O.: Peter G. Thomson, 179 Vine Street. 1879.

Transactions of the Medical Society of the State of Tennessee for 1879. 48 Church Street, Nashville, Tenn.

Original Lectures.

KERATITIS: ITS RELATION TO THE GENERAL CONDITION OF THE PATIENT.

A Clinical Lecture Delivered at the Medical Department of the University of the City of New York.

By D. B. ST. JOHN ROOSA, M.D.,

Professor of Ophthalmology.

(Reported for The Medical Record.)

Gentlemen:—Here is a boy who is twelve years old. He is very comfortably clothed, has a good color in his cheeks, and looks as if he might have all the conditions favorable to recovery from his eye trouble. His mother tells us he has had bad eyes, "off and on," for five years. Until he was seven years old his eyes were well. The first thing she noticed was that, without apparent cause, his eyes suddenly became bloodshot, that he then had sore eyes for some time, and that when he got well there was left a "speck upon each eye very near the sight of the eye." That means over the pupil and upon the cornea.

This is a very graphic history of a case of inflammation of the cornea which went on to the result which inflammation of the cornea must reach if unchecked, and that is opacity; or, as the mother says, a "speck or spot" upon the cornea. A speck upon the cornea is a serious matter. Suppose you put a speck upon the object glass of your microscope, and then attempt to look through it, you are in the same condition as the patient who has a speck upon his cornea. It is impossible to get distinct vision through the obscure medium. Sometimes short-sightedness results from such a straining of the eye. Stand the boy before a window that has been coated with brown paint, in which there has been left here and there a fissure, and tell him to look through it upon the landscape beyond, he will strain his eyes to do so, but he will not get clear vision at any point, unless the fissures in the paint are large and clear. So it is with disease of the cornea; there is not only a blemish upon the cornea, but much more, and that is the effect produced upon the eye by the overstraining to which it is subjected by reason of the resistance offered to clear vision by the speck of opacity. Such a condition of the cornea renders it impossible for the female child to learn to sew without straining the eye, or for any child to read without the same effect, and the eye is constantly liable to new attacks of inflammation from overstraining. It would be interesting to know what gave rise to his eye trouble at the age of seven. Perhaps we cannot reach the answer to such a question, but I know, from the straightforward history of the case, that the disease at that time was something from which he did not get thoroughly well. If these inflammations are allowed to go on and involve the structures beneath the epithelium, the anterior elastic layer, and the true structure of the cornea, they will probably not get well without an abnormal physical condition. So this boy was left with a provocative to another attack of inflammation. It is also interesting to know what was the state of his general health at that time, for I have come to consider disease of the cornea as an index to the general condition of the patient. His mother says that he had the measles a short time before his eyes became sore, but that, apparently, he made a complete recovery from that disease, so much so that he ate well, slept well, and was running about with the other children when the eye trouble developed itself. Judging from the evidence of the mother, and it seems to be trustworthy, the boy was in fair health and was being fed properly when this inflammation was developed, so there may have been some local mechanical cause which gave rise to the disease that has produced this change in the cornea. When asked what was done for the eyes when the inflammation first appeared, the mother says that the family physician treated it, and according to the proper rules, he did not put on a poultice, and from her account we cannot ascribe any fault to him. The case not progressing favorably, he recommended that the boy be taken to an eye infirmary, which was a very proper thing for him to do, for the people have a right to expect that he would there receive the best treatment that could be afforded. It seems, therefore, that when this boy was in a fair condition of health he was attacked with an inflammation of the eye that terminated with spots upon the cornea. This is a rather sad story, for we cannot find any condition which retarded recovery, nor any well-defined cause for the outbreak of the disease of the eyes. The case seems to come into that category in which the result is that complete recovery does not take place even under the very best of treatment. There is probably an inherent vice in the constitution of our patient, or something in his surroundings which we cannot at present find out. As illustrating this point, I remember a case in which the patient suffered from recurrent attacks of keratitis, and I was unable at first to detect any cause which I could regard as affording sufficient explanation of the recurrence. Finally, I learned that he was exposed to the acrid fumes of ammonia from a stable which opened almost into his bed-room. Taking the cue from what I saw in some students of veterinary medicine, who had keratitis, I suspected that the ammonia fumes might be the cause of the repeated attacks of inflammation in my patient. Accordingly, I had him removed from the exposure to the emanations from the stable, and, sure enough, he made a rapid and permanent recovery. There may be some such influence at work in this case, of which at present we know nothing. As yet we have found but very little in explanation of his present condition.

I will now describe his eyes. He has inflammation of the lashes, blepharitis; he has crusts at the roots of the lashes, and there are two spots upon his left cornea; there are blood-vessels running up to the lower spot, and the lower part of the ocular conjunctiva is redder than it should be.

BLEPHARITIS: ITS RELATION TO STRAIN OF ACCOMMODATION.

He has, then, blepharitis, keratitis, and that incurable condition, opacity of the cornea. What is the cause of his blepharitis? I believe I was the first to show that blepharitis depends very largely upon strain of the accommodation. I do not say that this boy's blepharitis does so entirely, but I do say that with opacity of the cornea, nearly over the pupil, he has conditions which must cause a strain of the accommodation, and I doubt not but that his blepharitis would disappear if I could remove the spots from the cornea. This blepharitis can be relieved, however—I will not say cured—because there exists the occasion for the constant lighting up of it in the strain necessary to look through an obscure medium. By simply keeping these crusts away, and putting a small quantity of grease along the borders of the eyelids,

his blepharitis will be very much relieved. Am I minute in the description and in my remarks upon this case? It is because I wish you to be minute, and to take into consideration every change, however slight, from the normal condition of the eye and its appendages. I wish you to notice the *character* of the opacities of the cornea which you see, and determine whether they are recent or old. If the opacity is old, there is no skill sufficient to remove it; but if it is recent, irritants and an improvement of the general condition of the patient may stimulate the absorbents sufficiently to cause it to disappear altogether.

In the right eye there is something much more recent than in the left. The entire eye is watery. There are also crusts at the roots of the lashes, the eyelids are red, and there are opacities upon the cornea, but they are soft. I know that these opacities are recent. I know that there is a process going on now in this eye, and that that process is an inflammatory one in the tissues of the cornea. It is an ulcer really, and fortunately it is a little below the pupil. But the boy's eyes are irremediably damaged for life. He will never have sound eyes, but he may be in a very much better condition than he is at the present time. The ulcer in the right eye may heal, and perhaps by the time he has reached twenty-one years of age the large spots upon the cornea will have disappeared. I suspect such a result, for the reason that people come to my office constantly and complain of being short-sighted, of being unable to see things well at a distance, and of not seeing objects thoroughly well even when near them. When they are brought before an ordinarily bright light you cannot see any change whatever in the cornea, but when the cornea is exposed to a strong light you can at once see that it is irregular in shape, and that there are very thin opacities. Then you know that it was once inflamed, and, upon further inquiry, you will be told that there was at one time a marked opacity of the cornea. The opacity, however, has nearly disappeared, and there remains little more than an irregular curvature at that point. Now, the patient, instead of looking through an opaque medium, is looking through a medium which does not have the requisite curvature for the proper collection of the rays of light; and there is nothing which you can do to improve the condition. So I suspect that this case may go on and get well of everything except an irregularity in the shape of the cornea.

We now have the history and the diagnosis of the case, but we have not gained much knowledge regarding its etiology, and nothing has been said of the treatment.

I have stated something with reference to *prognosis*, and I may add that it is good, so far as restoration of the eye from painful and unpleasant symptoms is concerned, but for perfect recovery the prognosis is bad.

TREATMENT.

What is the present general condition of the patient? Let us examine and see if that can be improved. He does not attend school, so that unfavorable surroundings, for eyes in the condition in which his are, do not exist. What does he do during the day? The mother tells us that he remains indoors most of the time, lies upon the sofa, etc. Doubtless, here is a circumstance which must be corrected. Disease of the cornea, as I have already said, a tissue which has no blood-vessels of its own, furnishes an index to the general health. Corneal disease, unless it be of purely mechanical origin, such as comes from lodgment of foreign bodies in the epithelium or in the deeper structures, is an evidence of a bad condition of the general health. Something is wrong. I have not yet found what it is in this boy's case, but there is malnutrition present from some cause. At all events, we will correct his habit of spending so much of his time in the house. He must go out. But suppose he goes out in the streets of New York, which our Police Commissioners take such remarkable care of, the dust will fill his eyes, and therefore they need protection. Hence we will protect them with blue glasses. Why blue? Because they cut off the rays of light which are most unpleasant to the eye. The glasses should have a shape which will cover the front of the eye; they should have a shell-like surface, with the concavity toward the eyes. I do not mean goggles. There are but few circumstances under which goggles should be worn. They heat the eyes. Furnished with a pair of glasses, the boy should be sent out into the open air; to Central Park, to Madison Park, to Washington Park, or to any park near which he may live. Send him out into the open air, and at the same time he should be occupied with some sort of amusement which will give him moderate physical and mental exercise. As a local application he is at present using sulphate of atropia, and that treatment is very proper. It is an anodyne application, and, besides, it enlarges the pupil; but in this there is some disadvantage. I wish for such cases as this we had an agent which was an anodyne, and at the same time allowed the pupil to remain unchanged. He has no iritis, hence there is no special indication for an agent which dilates the pupil. But the blue glasses will obviate a part of that disadvantage. There is another indication in the case. The eyelids must be kept clean. In the first place, all these crusts should be removed, and that can be best done perhaps by bathing with water which contains a small quantity of bicarbonate of soda. When the crusts have been thoroughly removed, the edges of the lids may be greased with a little vaseline, cosmoline, cold cream, glycerine, sweet-oil, simple cerate, or mutton-tallow without fat. When these indications are met, we have done all that we can do at present, locally. His diet should be nutritious, his sleeping-room should be so situated that an abundance of fresh air can gain admission, and in order to get his eyes well, indeed, he must be treated as though he had consumption. He should receive a bath at least three times a week, and an effort will be made to place him in a proper hygienic condition, and perhaps improvement will result. As a result of these ulcers of the cornea we may have vascular cornea, we may have the formation of an abscess in the cornea; little vesicles also occur upon the cornea—phlyctenular keratitis. This catalogue embraces nearly all the affections of the cornea.

ULCER OF THE CORNEA—AFFECTION OF THE EAR—DANGER OF ATROPIA-POISONING.

Here is another case of disease of the cornea. This baby is twenty months old. There is a white spot over the centre of this little girl's pupil. It is soft-looking, and I therefore know that it is recent. The child has nasal catarrh. It was weaned when six months old, and it is now just cutting its eye-teeth. The mother says it is being fed with whatever there is upon the table; that it receives a little tea and coffee, and that it is allowed to suck pieces of meat, all of which is wrong. Do not allow it among your patients, gentlemen. If the good Lord had wished us to eat meat at the age of twenty months, he would have given us a full set of teeth ready for use at that time.

Dr. Leaming, of this city, whom you should all know, has for some years had charge of an asylum in which large numbers of children are received and cared for, and he does not allow one of them to have anything except milk, and substances which can be dissolved in milk, until they are seven years of age. I think your professor of materia medica is equally emphatic upon this question, and now your professor of ophthalmology comes to you and beseeches of you to use all possible influence in the direction of having children reared upon milk alone. Not upon tea, not upon coffee, not upon meat, not upon sweet cake and puddings, but upon milk. Every physician will, under rare circumstances, prescribe beef-juice for infants, very much as brandy is prescribed upon rare occasions for small children, and I shall not quarrel with them upon that point. But I have a decided opinion that, under ordinary circumstances, no child should have anything except milk and farinaceous food until it has been provided with teeth with which to prepare other articles of diet for the stomach. Follow nature in your practice in ophthalmic as well as in every other kind of disease. I will engage, if this mother, who is anxious for her child, will listen to what I say about feeding it hereafter with milk, barley, farina, corn-starch, hominy, with perhaps a small quantity of sugar, that the teething will be easier, the bowels will be more regular, and diseases of the cornea will be less liable to occur. The ear is also in trouble. The child has then an ulcer of the cornea, and also an affection of the ear. The baby is cross because it is unhappy. As we look at the ear we see that there is pus in the auditory canal, and there is eczema behind the ear. What shall we do for this patient? We will do something for the local condition; for the eye we will order sulphate of atropia, one grain to four ounces of water. Of this a few drops should be put into the eye three times a day. The eye should also be bathed and kept clean with lukewarm water. The ear should be kept clean by syringing the auditory canal with tepid water, and a small quantity of vaseline should be used to overcome the irritation of this roughened surface behind the ear. The bowels are regular. We will also direct that small doses of iron be administered, and will tell the mother to take the baby out into the open air every day. We cannot adjust spectacles to the eyes of so young a child as this, but it may wear a shade. There is a belief, and the opinion was advanced by a reputable man, that errors of refraction cause chorea. One of the disciples, not the author himself of this doctrine—for the disciples sometimes regard themselves as wiser than the master—recommended that a child so early in life as three years should wear spectacles. You can imagine the result of the recommendation.

This child looks well clothed—too well clothed to appear in such a clinic as this—a fact which will be closely scrutinized and corrected if necessary, and it doubtless can have very many of the comforts of life.

You can now see what my lecture upon keratitis gets to be; it becomes a lecture upon *general hygiene*. For I must again state my belief that keratitis, idiopathic, not excited by mechanical injury or surgical procedure, is a constitutional affection, and requires a most careful attention to the patient's general health. It requires the attention of a general practitioner in the largest sense of the word.

DANGER OF ATROPIA-POISONING.

I suppose you are sometimes tempted to ask, Is there no danger of atropia-poisoning from the use of the agent in the eyes of such young children? We do sometimes meet with cases in which such symptoms are developed, but the dose is so small, in a solution of the strength which we have recommended, that there is but little danger of developing *serious* symptoms. If unpleasant results are to be manifested, it is usually very soon after the administration of the remedy, and that result should have the effect of diminishing the dose. I have known children to get as red as a lobster within a few minutes after the application of a few drops of a two-grain solution to the conjunctiva, but such are exceptional cases, and, usually, you can use atropia for weeks in succession without producing unpleasant consequences. You can produce a kind of chronic conjunctivitis by using atropia too long without occasional intermissions. Therefore, you should occasionally omit the medicine for the purpose of determining whether or not it may not be keeping up the irritation. The late Dr. Ely, of Rochester, in this State, had a very good habit when he came to a case that had been under treatment for some time, of stopping everything in order that he might know how the patient was without treatment. He was like a man taking soundings upon shipboard; and it is very well sometimes, particularly after having used drugs for a considerable length of time, to stop the use of those drugs and see where your patient is. So it is in the use of atropia; you must have your suspicions aroused, after it has been used for a long time and the eye seems to be more irritable than at first, that the atropia may be the agent which produces the irritation. You will occasionally be obliged to stop the use of the remedy on account of such a result.

Original Communications.

ADENOID GROWTHS IN THE VAULT OF THE PHARYNX—THEIR REMOVAL BY THE GALVANO-CAUTERY.

By J. O. ROE, M.D.,

ROCHESTER, N. Y.

FELLOW OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

(Read before the Central New York Medical Association, 1879.)

In the vault of the pharynx, just below the junction of the vomer with the sphenoid, is found an aggregation of glandular tissue consisting mostly of the stroma of the mucous membrane which has become more strongly developed, and containing in its meshes of network a large supply of lymphoid cells.

This tissue is ordinarily spread out somewhat thinly over the vault, and extends over the pharyngeal projection of the Eustachian tubes, and into the fossæ of Rosenmüller. Often, however, it is less flattened out, forming a sort of cushion in appearance. In some cases it is concentrated or accumulated into a more rounded mass, and is then called, from its histological composition, the "pharyngeal tonsil." At other times it is laid in longitudinal ridges or combs of various lengths, running antero-posteriorly or obliquely, and separated by fissures or lacunæ of varying depths. It is covered with ciliated epithelium, and the line of demarcation between it and the surrounding tissue can usually be distinctly traced.

Henle speaks of this tissue as conglobated glandular substance. Luschka and His describe it as adenoid, while Kölliker considers it as an increased development of the cystogenetic layer of the mucous mem-

brane; that is, resembling the lymphatic gland-tissue, with extensive distribution of lymphoid cells in the interspaces.

The existence of this glandular tissue in the vault of the pharynx was recognized long before the introduction of the rhinoscope into practical medicine; but so little was known concerning its nature and diseases that mention of it was seldom made in medical literature. When observed, which was usually during anatomical dissections, it was described as simply "a chain of glands extending across the pharynx from one Eustachian tube to the other." It did not, however, escape the attention of the celebrated William Hunter, who exhibited in his museum careful dissections of this tissue, both in its normal and pathological condition.*

Horace Green briefly mentions these adenoid growths in his work on "Follicular Disease of the Pharyngo-Laryngeal Membrane;" Czermak speaks of them as "cock's-comb protuberances;" Türck refers to them as "vegetations;" while Semeleder describes two cases of polypi from the roof, which Meyer considers must have belonged to this category.

The first recorded attempt at examination of these growths by means of the rhinoscopic mirror was made by Voltolini in 1865.† He observed comb-like, club-shaped, or berry-shaped formations in this region, which he described as polypoid vegetations of the mucous membrane; and in 1868 a very admirable and elaborate description of the microscopic anatomy of this tissue was given by Prof. Luschka.‡

But little practical attention, however, was directed to the disease of this tissue until Dr. William Meyer, of Copenhagen, gave the results of a careful study of this subject in an elaborate article on "Adenoid Vegetation of the Naso-Pharyngeal Cavity."§ He says: "These vegetations are found to consist of adenoid tissue, and are therefore morbid growths of the closed glandular structure of the pharynx. They vary in form and consistency, sometimes being solid and firm, and at others soft, highly vascular, and prone to bleed."

The diseases most common to the gland-tissue in the vault of the pharynx are those of a chronic inflammatory or catarrhal nature, from exposure to various irritating causes to which it is constantly subjected, leading to hypertrophy and adenomatous growths. In fact, the cause, history, and progress of the affections of this tissue are those of ordinary post-nasal catarrh; and a great number of the cases of so-called chronic post-nasal catarrh, commonly considered incurable, will be found to be due to localized disease of this tissue; and when this tissue is removed, all symptoms of a general catarrh will readily disappear.

These adenomatous neoplasms may be divided, according to the nature or manner of attachment, into sessile and pedunculated. In the early stages of a growth it is often difficult to determine which of the two forms it will assume; but the sessile is by far of the more frequent occurrence. These growths vary in size from a small projection to one sufficiently large to completely fill the nasal pharynx,‖ and, as sometimes seen, to project below the palatine border; moreover, owing to their vascularity, they appear at times much larger than at others. Their frequent association with enlarged granulations in the upper part of the pharynx has led many * to believe in the existence of a connection between the two. Such, anatomically speaking, is not the case. The granulations consist in hypertrophy of the solitary glands; while in the adenoid enlargement, all the elements of the mucous membrane are associated in the hyperplastic action.

The buccal pharynx is composed of connective tissue, while in the nasal pharynx the adenoid tissue largely predominates, and the mucous membrane is much thicker and more vascular.

Etiology.—The causes to which these growths are most frequently attributed, are coryza and exposure to cold and damp. Owing to the readiness of this adenoid tissue to absorb moisture on exposure to humid atmospheres, more or less stasis is produced, exudation takes place from the turgid vessels into the substance of the tissue, and becoming organized, results in a permanent enlargement. Adenoid growths are found most frequently in persons leading an indoor life, owing to the debility of the local parts from lack of air and exercise, and the congestion produced by sudden change from hot rooms to cold or damp air.

The cause for the greater frequency in children lies in the lymphatic temperament, and the anatomico-physiological connection, through the lymph channels, between the naso-pharyngeal region and the cervical lymphatics. The larger size of the channels in children also explains the frequent occurrence of enlarged glands of the neck in those suffering from nasal catarrh. Often an inherited scrofulous taint predisposes to these growths, and they are very frequently associated with cleft palate, owing to the direct exposure of this region to various irritating causes.

The age at which these growths are most frequently found is during childhood and youth, but they are also found in many cases of adults of both sexes; although rarely to the extent of filling the cavity of the nasal pharynx, as frequently found in children. They are not known, however, to occur in advanced life.

Symptoms.—In the course of the growth of these tumors, the first function materially interfered with is the free normal respiration; and as the growth increases so as to fill more and more completely the cavity of the nasal pharynx, all the functions depending on a normal condition of these parts—as the respiration, phonation, smell, and hearing become correspondingly impaired.

In *children*, the growths are usually much larger than in adults, proportionate to the size of the nasal cavity, consequently with them nasal respiration is more seriously interfered with. In children, the first and most prominent symptom is the constantly open mouth, which occasions later on the drawing down of its corners; the lengthening of the line of the nasal wing; a stretched and wrinkled appearance of the skin of the face; a flattened or compressed appearance of the nose from arrested development, and, together with a frequently sallow complexion, gives to the child a peculiar indolent or vacant expression. Sometimes a drawing down of the inner canthus of the eye, so strongly as to give to the face a strange Chinese appearance, as has been observed by Michel;† "deafness and a peculiar deadness to the articulation of certain consonants, as *m* being pronounced like *b*, and *n*

* Cohen: Diseases of the Throat and Nasal Passages, 1879, p. 253.
† Wiener Medizinische Zeitung, No. 33, 1865.
‡ Der Schlundkopf der Menschen, Tubingen, 1868.
§ Medico-Chirurgical Transactions, Vol. LIII., p. 191, London, 1870.
‖ I prefer the classification adopted by Loewenberg, *i. e.*, of applying the term nasal pharynx to that portion of the pharynx above the border of the palatine arch, and buccal pharynx to that portion below the palatine arch.—Les Tumeurs adénoïdes du pharynx nasal. Paris, 1879, p. 1 (1).

* Loewenberg, loc. cit., p. 8.
† Diseases of the Nasal Cavity and the Vault of the Pharynx. Cologne, 1876. English translation by Shurley and Yemans, p. 82.

like *d*; a peculiar way of pouting or twisting their lips, toying with them as it were,"* are also striking characteristics.

In *adults*, these symptoms are not usually so well marked, for it is seldom that the size of the growth is sufficient to completely obstruct nasal respiration. They are very clearly described by Dr. Andrew Clark,† as "discomfort, aching, or pain in the neighborhood of the soft palate and posterior nares; tingling, or sense of fulness about the root of the nose, frontal headache, a mawkish or fœtid taste in the back of the mouth, a thick mucus, purulent, or cheesy secretion discharged at intervals, chiefly through the mouth, by means of snorting nasal inspirations, followed by hawking, slight perversion of taste and smell, alterations of voice, sometimes temporary deafness from obstruction of one or both Eustachian tubes, and an abundant secretion of wax in the external ear."

We will now consider the relation of these growths to these important functions. The injurious results to both organs by the substitution of buccal respiration for nasal respiration is at once apparent. During the passage of air through the tortuous nasal passages it is subjected to two important physical changes:

1st. It becomes elevated in temperature.

2d. Laden with moisture by the evaporation going on from the extensive surface.

The effect of buccal respiration on the pharynx is often quite marked. The cold air strikes the pharynx, heat and moisture are abstracted, and the effect is to excite secretion and induce irritation, resulting in granular pharyngitis. In many cases, however, this pharyngitis is produced by other causes, which tend in turn to induce these adenoid growths.

It has been pointed out by Stoerck that the mucous membrane becomes œdematous after obstruction of nasal respiration for a length of time, and the mucous follicles undergo colloid degeneration. The degeneration, however, is the result of the hypertrophy as a primary cause, and frequently results in sufficient infiltration, particularly over the inferior turbinated bones, to require active treatment and often instrumental removal. The same degeneration may extend to the terminal fibres of the olfactory nerve in the pituitary membrane, and thus enfeeble or destroy the *sense of smell*. Occlusion of the nares will also produce the same result by preventing the inspiration or entrance of the odoriferous particles.

With the enfeebling of the sense of smell comes the impairment of an important element in the *sense of taste*. The sense of taste proper is only capable of distinguishing the four elementary properties of sapid substances, as sweet, sour, saline, and bitter, while the perception of all the aromatic flavors depends on the sense of smell. The lack of this element in the taste is often observed in those whose smell is destroyed, and the experiment can readily be made by tasting a choice brand of wine with the nostrils closed, when it will seem flat and insipid.

The most important office of the passage of air through the nose before it enters the lungs, is the arresting or filtration, so to speak, of foreign substances, as dust, spores, etc., from the air; the necessity of which is shown by the experiments of Tyndall, Pasteur, and others. Smith and Davis‡ estimate that there are ordinarily contained in the air we breathe during ten hours, 37½ millions of spores. A microscopic examination of the nasal mucus and the air found in a crowded, illy-ventilated room, will at once convince one of the importance of nasal respiration in protecting the pulmonary organs; and aptly illustrates the old proverb, "Shut your mouth and preserve your life."

The cutting off of nasal respiration exerts a marked influence in arresting the *development of children*. The first and most serious impediment is its interference in nursing, for as soon as the child closes its mouth on taking the breast it is at once unable to breathe, and has to remove its mouth to take breath. The transitory symptoms of false croup, or laryngitis stridulus, occurring in the early part of the night, to which many children are subject, are often due to this cause. On lying down, while sleeping, the tongue dropping back closes against the soft palate, and, acting as a valve, produces marked stridulous breathing, and should the mouth become closed, suffocation is at once produced, and the child starts up with a cry and spasmodic gasping for breath. In this manner can be explained the restlessness and spasmodic starting in sleep in many children, the cause of which is so often looked for in some nervous derangement. Several cases of this kind have come under my observation, and on the removal of the obstruction the trouble entirely disappeared. I can now recall a very marked case of this kind which occurred several years ago. The patient was seen by several noted physicians, but none succeeded in giving any relief, as all their attention was directed to the nervous system.

The deformity known as *chicken- or pigeon-breast* is often produced by these obstructions, concerning the cause of which the general examination or history will give no clue. In the growth of adenoid tumors there is a transition stage, before the nasal respiration is completely cut off and buccal respiration established, when a deficient amount of air enters the lungs, and by the action of the inspiratory muscles tends to collapse the chest, the pliable ribs giving way to the external pressure. Dupuytren and Roberts attributed this deformity to enlarged tonsils, entirely overlooking the fact that they might be the result of these growths.

Open and clear nasal passages are of the utmost importance in the function of speech, particularly in the pronunciation of the nasal consonants *m* and *n*, which are pronounced *b* and *d* when the posterior nasal opening is occluded. The manner in which this substitution takes place is explained by Loewenberg,* as follows: In the pronunciation of *m*, the air is emitted through the nose, while the buccal cavity is closed in front by the compression of the lips one against the other, the posterior nasal opening and larynx remaining at the same time open. The same configuration of the buccal cavity is necessary for the pronunciation of *b*, except that the soft palate is raised, intercepting the passage through the nose, and the current of air fills the mouth, pressing against the lips, forcibly separating them.

Thus we see that when the posterior nasal passage is closed by the pathological obstruction, the tumor, on attempting to articulate *m*, it becomes impossible. The expired current of air is compelled to escape by the mouth, and *b* is pronounced. The process is exactly the same in the substitution of *d* for *n*, except that the anterior closure of the buccal cavity is made by the tongue, the tip of which is brought in contact with the superior incisors and alveolar process when *n* is pronounced, the current of air being compelled to

* Meyer: Medico-chirurgical Trans., loc. cit.

† London Hosp. Reports, Vol. I.: Spencer Watson, Diseases of the Nose, p. 65.

‡ Loewenberg, loc. cit., p. 21.

* Loc. cit., p. 27.

pass through the open posterior nasal passage; while in the pronunciation of *d*, the tongue is forcibly separated from the teeth and alveolar process. Thus the labial and lingual resonants, *m* and *n*, are replaced by the labial and lingual explosives, *b* and *d*, so that moon is pronounced *bood;* common, *cobbod;* and nose, *loze* or *doze*. The peculiar nasal twang is also so characteristic as to be readily distinguished when heard.

The influence on the voice in singing is often marked. It muffles the voice and interferes with the emission of high notes by preventing the elevation of the soft palate. Cases are recorded when, after an operation, the voice rose a tone and a half.

Effect on the ear.—Pharyngeal adenoid tumors are nearly always associated with chronic inflammation—as pharyngitis, rhinitis, sometimes hypertrophy of tonsils, and, most frequently of all, with Eustachian catarrh. Meyer found, in 175 cases which came under his observation, that in 130 there were auricular complications.

The ear may be affected by the tumor in three ways:

1st. By the propagation of acute or chronic inflammation through the Eustachian tube to the middle ear.

2d. By the pressing of the tumor against the orifice of the tube, mechanically closing it, and by thus preventing the entrance of air, the membrana tympani becomes collapsed, and in cases of Eustachian catarrh prevents escape of the mucus secreted, causing suppuration and perforation of the drum-head.

3d. By mechanically exhausting the middle ear of air during deglutition, in cases where there is complete obstruction of the nasal openings.

The influence of nasal respiration on the ear is illustrated by Mr. George Catlin, in his history of "The North American Indians." Among two millions Indians, he found not one who was deaf or breathed through the mouth, except three or four deaf-mutes; and in the memory of the chiefs of 150 tribes, not one case of deafness could be remembered to have occurred. This is explained by the mother always closing the mouth of the child whenever it attempted to breathe through it.

Diagnosis.—The diagnosis of these growths is ordinarily quite easy. In many cases the symptoms are sufficient to afford very conclusive evidence of their existence, but it is only by a rhinoscopic or digital examination that a positive diagnosis can be made. Michel* states that he is ordinarily able to recognize them through the nostrils; but it has not been my good fortune to be able to do so only in very exceptional instances. Whether Michel's success was due to the large-sized nasal openings in the people of Cologne I cannot say.

In the normal vault the only projection to be seen by the rhinoscopic mirror is the pharyngeal orifice of the Eustachian tube, consequently any considerable elevation above the normally smooth walls is at once to be considered an abnormal growth. By means of the rhinoscopic mirror we are able to determine their exact location, size, color, nature of secretion, if multiple or single, pedunculated or sessile. When sessile they usually form one rounded mass, with numerous small openings, which lead to a general cavity with communicating recesses.† From each opening will be seen exuding a thick viscid mucus, ordinarily quite clear, but sometimes discolored and mixed with pus or blood. Often this material will dry on the surface, forming a sort of cap, which, when removed, will represent the outline or configuration of the surface of the tumor. When pedunculated they are usually multiple, and hang down from the vault in clusters, or berry-shaped excrescences. They are usually of a bright red color, but sometimes have the appearance of an hypertrophied tonsil. Their presence will sometimes be indicated by their interfering with the introduction of the Eustachian catheter.

In many cases a digital examination, as proposed by Meyer, is necessary to determine the consistency, if firm or flaccid, the exact attachment, and to distinguish in doubtful cases if the enlargement is a fleshy growth or an osseus projection or tumor. After a digital examination there is usually more or less bleeding, and so great is their vascularity that, as observed by Dr. Cohen,* slight hemorrhage is often produced by the projection of a jet of water against them from the posterior nasal syringe. Meyer likens the sensation perceived by the finger to a bunch of earth-worms. A like sensation is, however, often produced by the constriction upon the finger of the muscles of these parts.

In early childhood the symptoms which these growths produce may be mistaken for those produced by coryza and hypertrophy of the tonsils, and in adults with chronic naso-pharyngeal catarrh, hypertrophy of the tonsils, and nasal and naso-pharyngeal polypi. In each of these cases a careful examination will reveal the exact nature of the difficulty.

The *prognosis* is always favorable as far as removal is concerned, and the affections which they have produced in other organs are usually much more amenable to treatment than when produced by other causes.

Treatment.—The treatment of these growths is divided into local and general. The association of these growths with the lymphatic temperament is so frequent that more or less general treatment is usually called for. It should consist in good hygiene, plenty of exercise in the open air, cold sponge or sea baths, and cod-liver oil, bitters, iron, and iodine preparations if required. All irritants, as too hot or cold food, alcoholic liquors, tobacco, bad air, and excessive use of the voice, should be avoided. In cases where there is no diathesis to combat, only the injuries done by the presence of the tumor have to be counteracted.

The *local* means employed are ablation and cauterization. The method usually employed for ablation is by crushing, by means of forceps with strong blades curved at a proper angle to pass up behind the palate; the curette, as used by Loewenberg, consisting of a spoon-shaped blade with cutting-edge, and attached to a handle by means of a slender shank; the écraseur, as recommended by Maisonneuve and Wilde; and the cutting forceps, as devised and used by Fauvel, Stoerck, and Cohen. These cutting-forceps are often very convenient as an expeditious means of removing small growths. There is but little danger of injury resulting from their use, as whatever adventitious tissue is found in the vault is legitimate prey. Meyer has recommended an annular knife to be passed through the nostril, by which he scrapes off the tumors. This, however, is only applicable in cases of large vegetations.

Since the introduction of the galvano-cautery into the treatment of these growths by Voltolini in 1867, it has been fast superseding all forms of caustic applications and operative procedures. Its advantages over all other methods are very great, due to the

* Loc. cit., p. 83.
† Clark, London Hosp. Rev., Vol. I.

* Loc. cit., p. 259.

rapidity and effectiveness of its action, and the avoidance thereby of hemorrhage, which in the cutting operations is frequently very profuse and exceedingly troublesome, owing to the great vascularity of the parts.

The cautery can be used in two ways, according to the variety of the growths. For those which are pedunculated, the platinum wire loop passed through the nostril and around the tumor is best adapted; and for the sessile variety, the curved electrode devised by Lincoln,* which is passed up behind the palate, in the end of which is a coil or disc of platinum protected from injuring the surrounding parts by a shield, and is made to fit Lieter's handle. I have recently had an electrode made with the stem coated with asbestos, which protects the parts entirely in case the stem becomes heated.

In some cases a simple hook for holding the palate is all that is required; but in cases of muscular and rigid palates, where gagging is easily induced, the most reliable retractor I have found to be two soft tapes passed through the nostrils and out of the mouth and tied over the upper lip in front, as suggested by Dr. Cohen; or a rubber cord used in a similar manner, as proposed by Dr. Wales. By thus drawing the soft palate forcibly forward the shield can to advantage be dispensed with, and by means of the rhinoscopic mirror the entire operation can be performed under sight; and it can readily be seen when the entire destruction of the growth is accomplished. Ordinarily, the use of anæsthetics is unnecessary, as the pain attending the operation is not great; but in some cases of nervous patients, or very irritable throats, they are advisable and occasionally indispensable. The battery which I use is Dawson's, manufactured by Geo. Tiemann & Co., which, with Lieter's handle, leaves but little to be desired for a perfect cautery apparatus.

To illustrate the preceding remarks, I will select a few cases from my note-book as we meet them in practice.

Case I.—Miss H. D——, æt. 22 years. Referred to me Feb. 16, 1875; suffering from trouble in her throat, and deafness. She complained of stoppage of the nares, with a sensation of fulness in the back part of the nares just above the soft palate, and of a thick mucous discharge from posterior nares. Her voice had a muffled and indistinct expression. She also complained of an itching sensation in external auditory meatus, and there was an abundant secretion of wax in the ears. On rhinoscopic examination I found a large growth of adenoid tissue almost filling the vault, pressing on the pharyngeal opening of the Eustachian tube, and hanging down behind the velum, which had quite a polypoid appearance. Not having a galvano-cautery at hand at the time, I removed it with a pair of sharp-edged scoop-forceps, such as are used by Meyer. Considerable bleeding occurred at the removal, but it was readily controlled by perchloride of iron. She continued under treatment for a short time for the deafness, and also some naso-pharyngeal catarrh with which the growth was associated. The latter trouble was removed by local treatment, the closed Eustachian tubes were opened by the introduction of the Eustachian catheter, and her hearing was left but slightly impaired.

June 3, 1877.—She returned with a reappearance of the adenoid growth to nearly its former size, and an increase in her deafness. I then applied the galvano-cautery. One application was sufficient to destroy the growth entirely; and since her voice has been good, hearing greatly improved, and there has been no tendency to a return of the growth.

Case II.—Miss S. J——, æt. 21 years. Had suffered from more or less throat trouble for the previous seven years. Had also had a great deal of cough and expectoration which proceeded from a bronchial catarrh in right lung. The trouble in throat consisted in an irritation and tickling, with stoppage and sensation of fulness in posterior nares, just above the soft palate. There was also considerable tenacious discharge from posterior nares, obliging her to hawk and cough in order to keep her throat clear. She had also considerable frontal headache. On rhinoscopic examination there was seen a mass of adenoid tissue obstructing the passage; the growths being thrown into folds, giving it a cock's-comb appearance. A profuse tenacious discharge was poured from the openings of the lacunæ of the glands, which were very sensitive and bled on the slightest touch. Her singing-voice, which was before very clear and strong, had become flat and the compass restricted. Removal of this diseased tissue by the galvano-cautery was advised and readily assented to. The first application of the cautery did not result in the complete removal; accordingly, after an interval of about ten days, it was repeated with entire success. Local applications were made to the surrounding congestion, and the slight thickening which the tumors had caused; inhalations and appropriate internal remedies for the bronchial catarrh were given; and she is now enjoying excellent health.

Case III.—Miss E. W——, æt. 23 years. She was slender, delicate, and of a scrofulous diathesis, although quite well until the previous September. Came under my care Dec. 15, 1876. She had been greatly annoyed for about three months by a very profuse discharge of a thick tenacious mucus from the posterior nares, which she was unable to expectorate or clear from her throat. The only manner by which she could dispose of it was by swallowing, which would bring on attacks of sick-headache and nausea every few days. The discharge was aggravated by damp weather or colds, increasing accordingly the frequency of the attacks of nausea, which were very exhausting. She lost flesh and strength quite rapidly. Had a constant dull frontal headache, also an irritation in throat which excited cough, some obstruction to nasal respiration, and difficulty in her enunciation. On rhinoscopic examination, the vault was found filled with hypertrophied glandular tissue, from which the mucus was exuding. Digital examination gave to the finger the peculiar sensation of a bunch of earth-worms, as described by Meyer. The posterior nares were cleansed thoroughly every day by means of the post-nasal syringe, with a solution of chlorate of potash, chloride of sodium, and carbolic acid. This relieved the vomiting and sick-headache. Tonics and good nutriments were given, and as soon as she was restored to sufficient strength the galvano-cautery was applied to the diseased tissue in the vault. Two applications were required before it was entirely removed. After the disappearance of the tissue and the cessation of the discharge, the nausea and sick-headache left, her appetite returned, and it was surprising to note the rapidity with which she regained her flesh and strength.

Case IV.—The most interesting and characteristic case of this affection came under my care last October. Miss Z. M——, aged thirteen years, a bright, well-developed, and well-nourished girl; scrofula and phthisis markedly hereditary from both parents. One year ago last February she had scarlet fever, but it was followed by no observable sequelæ at the time.

* Medical Record, New York, Dec. 30, 1876, p. 540.

Last February, one year after, she began to have trouble in her throat and posterior nares, accompanied by deafness. She had also a discharge of clear but thick viscid mucus from posterior nares, and an irritation in throat producing cough. Since the trouble came on she has had a growing impediment in her speech, giving her voice a muffled, flat sound, depending on deficient enunciation of the nasal consonants. She snored, and frequently started up suddenly while sleeping. She breathed chiefly through the mouth, because of stoppage in the nose, which, with her deficient hearing, gave her a very vacant, staring expression. Her friends had become quite anxious concerning her hearing, and had had her under the care of two aurists of distinction, during the past year, without benefit resulting. On examination, marked hypertrophy of the adenoid tissue was found nearly closing the post-nasal openings, extending into the fossæ of Rosenmüller, and encroaching on the pharyngeal opening of the Eustachian tubes, occluding them, and thereby causing deafness. The membranæ tympani were markedly concave, but otherwise normal. The opening of the Eustachian tubes by the catheter partially restored the hearing, but only for a short time. Removal of this tissue was advised as the only means of permanent benefit, and the use of the galvano-cautery recommended and readily assented to. The operation was performed with the use of an anæsthetic, Dec. 12th, my friend, Dr. E. V. Stoddard, assisting. The result was very gratifying. Her hearing was quite nearly restored, the hacking cough passed away, and the impediment in her speech also disappeared.

In many cases it is very difficult, often impossible, to obtain the assent of the patient, or parents in case of children, to any method of operative interference; consequently, in such instances, the removal of the tissue must be effected by a chemical means. Various caustic applications are used and recommended for such purposes; as, the Vienna paste, London paste, nitric acid, chromic acid, nitrate of silver, nitrate of zinc, etc. The one best adapted for these applications I have found to be chromic acid, on account of its rapid action and the peculiar advantage which it possesses over the others of causing but a very slight amount of pain proportionate to the destructiveness of tissue.

From a number of cases, I will cite the following as a typical one in which it was used. Frank F., an active, bright boy of thirteen years; home, San Francisco, Cal.; attending school in Oswego. He had been troubled with catarrh for several years, but otherwise enjoyed ordinarily good health. After an attack of measles three years before, his catarrhal trouble became much worse and his health impaired. He had a profuse mucous discharge from the posterior nares, proving a great annoyance to himself and friends, particularly at meals. There was great obstruction to nasal respiration, which on taking cold would be entirely cut off. The nasal resonance was gone from the voice, or, in common parlance, he spoke through his nose. During the night he snored loudly. Examination revealed a mass of hypertrophied adenoid tissue in the vault of the pharynx, about the size of a sparrow's egg, nearly filling the superior pharyngeal space, and from the openings in this tissue were poured out profusely a glairy mucous discharge. There was also moderate enlargement of the tonsils, but no other disease in or about the throat or nares to be found. I advised excision of the tonsils, and removal of the adenoid growth by the galvano-cautery, as the most expeditious means of accomplishing the desired end. The excision of the tonsils was allowed, but the removal of the adenoid growth by means of the galvano-cautery was objected to. Consequently I had to resort to the application of a caustic, and accordingly used chromic acid. About fifteen applications were required before the complete reduction could be accomplished, owing to the size and firmness of the growth. It was interesting, in this case, to note the cessation of the discharge with the disappearance of the tumor, and also the corresponding improvement in general health. Before this the boy had been subject to frequent colds, but has been entirely free from them since.

Thus it is a common experience to find more or less disease of this adenoid tissue in nearly every case of obstinate or aggravated post-nasal catarrh which one is called upon to treat, varying in degree from a mild catarrhal inflammation confined to the mucous membrane lining the crypts, and permeating all the channels, as we find in tonsillar catarrh, to extensive disease and hypertrophy of this tissue, blocking up the pharyngeal vault, and producing all the symptoms depicted in the most aggravated cases. And it is in these cases as useless to attempt, by ordinary mild astringent or saline washes, or sprays, to remove the disease thus located almost wholly below the surface, as it is to attempt to remove catarrh or hypertrophy of the tonsils by such means.

Excision or destruction of the diseased tissue is the only means of a radical, permanent, and positive cure.

EFFECTS OF "PITHING" ON THE VASCULAR SYSTEM.

A NEW PHASE OF THE SUBJECT.

By THOMAS W. POOLE, M.D.,

ONTARIO, CANADA,

AUTHOR OF "PHYSIOLOGICAL THERAPEUTICS."

By "pithing" is meant the destruction of the medulla oblongata and spinal cord. The operation is performed by cutting down posteriorly upon the cervical spine, just below the skull, separating two of the vertebræ, and thrusting a probe or stout wire first into the cranium and then down the spinal canal, where it is moved about freely, so as to break up and destroy the nervous substance.

It has been asserted on authority, and currently believed, that this operation causes general relaxation or dilatation of the arteries, and as the calibre of these tubes is under the control of the vaso-motor nerves, whose centres are thus destroyed, the experiment is quoted to prove that arterial dilatation is the effect of vaso-motor paralysis. As a consequence, it is also held that arterial contraction is depending on vaso-motor influence, and is best shown under vaso-motor excitation.

We have had the boldness to call in question the truth of the accepted vaso-motor theory, and in a recently published work, entitled "Physiological Therapeutics," we have attempted to show that this theory is quite at variance with the facts of disease and drug action. At present we propose to refer more especially to the effects of pithing, and before proceeding to the results of our personal observation, we shall refer, in brief terms, to Dr. Burdon-Sanderson's account of the operation, to which the reader may be disposed to turn for the full details, as contained in the "Handbook for the Physiological Laboratory." (Lindsay & Blakiston, Phila., 1873, pp.

244-246.) This eminent physiologist states that the arterial tonus is maintained "only so long as the artery is in communication with the vaso-motor centre," and that "if the medulla is divided immediately below the cerebellum, all the arteries are relaxed." To illustrate this, he enters into details of the "destruction of the nervous centres" by the manner known as pithing. A careful and studied perusal of what follows under this heading has satisfied us, and we think will also convince the candid reader of the work referred to, that the result of the operation, as there recorded, by no means sustains the assertion that the arteries are relaxed, and entirely fails to prove the point it is intended to demonstrate. Thus, Dr. Burdon-Sanderson finds the heart of the pithed frog empty, and that it bleeds considerably less when the ventricle is split open than the heart of an unpithed frog. The intestinal veins are distended. He finds the mass of the blood at rest "out of reach of the influence of the heart," presumably in the veins, which he tells us elsewhere are one-sixth more capacious than the arteries; but he makes no mention whatever of the condition of the arteries, the point on which the interest of the experiment entirely depends! This omission is very significant. If the arteries were relaxed and full of blood (as the experiment was specially designed to show), the left ventricle and aorta could hardly be empty; nor with the systemic vessels distended with blood could that fluid be properly said to be at rest "out of the reach of the heart."

With a view of ascertaining for ourselves what were really the effects of the destruction of the nervous centres on the vascular system, we have conducted a series of operations of the kind referred to on frogs, rats, kittens, and puppies, with the result that, so far from the arteries being relaxed or dilated with blood, we invariably found them empty, pale, and contracted, while, in marked contrast, we as uniformly found the entire venous system distended and its swollen tubes dark blue from the quantity of blood contained in them. We found this fact less palpably shown in frogs, owing to the early bifurcation of the aorta and its subsequent division into small branches. But in the mammalian subjects mentioned, the emptiness of the aorta and its chief branches, the smallness and paleness of the iliac artery contrasted with the corresponding dark and swollen vein, the prominence of the veins of the mesentery and viscera, so injected as to be easily traceable to their venous trunks, and the engorged portal vein, were too well marked to admit of doubt. The lungs were not congested, but were partially collapsed, as though the pulmonary artery, too, had contracted, shutting off the passage of blood; for the venæ cavæ were full, and the right ventricle bled on puncture rather more than its tiny cavity (in some of these subjects) might be expected to hold. We are satisfied from these observations that destruction of the nervous centres by pithing is not attended by dilatation of the arteries, but that, on the contrary, the arteries are so contracted as to have emptied themselves by forcing the blood into the veins, which were distended and prominent in consequence. We can now fully understand Dr. Burdon-Sanderson's statement as to the mass of the blood having come to rest "out of the reach of the influence of the heart."

These results show that this operation, so far from supporting the accepted vaso-motor theory, militates strongly against it; for the arteries are contracted, when, under the condition of nerve paralysis, they ought to be dilated. Nor can the distended condition of the veins be quoted in support of that theory, for it is the arteries and not the veins which are under the control of vaso-motor nerve influence. The dilated condition of the veins is a purely passive or mechanical one, from having blood forced into them which was debarred from passing the round of the circulation as usual. For the reasons stated, we believe this obstruction was caused by the contraction of the pulmonary (in common with other) arteries.

Anatomists long ago pointed out, that in death from ordinary causes the arteries were invariably found empty. Hence the ancient notion that they were filled with air or "vital spirits." What we here state to be the effect of pithing is therefore an ordinary and by no means exceptional condition. This uniform contraction of the arteries in death proves that arterial contraction cannot be dependent upon vaso-motor nerve influence, since it occurs after nerve-force becomes extinct. It follows equally that arterial dilatation cannot be due to nervous paralysis, for under this very condition of the nerves the arteries are contracted and empty.

In this connection we are sure to be referred to the celebrated experiment on the cervical sympathetic, in which section of that nerve or ganglion has been shown to produce dilatation of the arterioles of the head and face, with other concomitants of that condition, including increased temperature; and it will be said that here, at any rate, nervous paralysis and vascular dilatation go together. We have fully considered this objection in the work referred to, and have shown that physiologists very frequently regard injury, section, or extirpation of portions of nervous tissue, not as producing paralysis, but as setting up temporary irritation in the remaining nervous substance, or in contiguous nervous tissues, and in this way producing for a time effects similar to those of nervous excitation. In addition to the authorities there quoted in support of this view, we are glad to be able to add that of Dr. Ferrier, who, in his "Functions of the Brain," records marked sexual excitement in a monkey, in whom the occipital lobes had been extirpated before it had recovered its appetite for food, and while still much physically prostrated. Dr. Ferrier remarks: "The excitation of the [sexual] appetite cannot have arisen *ab extra* in the usual manner, for the companion monkey was also a male, and resented the proffered embrace. It would therefore seem to have been caused by central irritation, and the conditions were such as to excite by inflammatory irritation the centres of the sexual feeling, supposing these to be in immediate contiguity to the line of section of the occipital lobes" (p. 198). Dr. Burdon-Sanderson finds the vagus ganglion of the septum of the frog's heart excited to increased display of its motor power by "the mechanical irritation" occasioned by excision of the sinus venosus (inferior vena cava) from the right auricle, "preferably by a blunt scissors." (Handbook, etc., pp. 277, 278). In view of these authoritative examples, in addition to those elsewhere adduced, proving that physiologists are accustomed to regard traumatic injury of nervous tissue as a source of nervous excitation, we ask for the application of the same principle to section of the sympathetic. In that case, the dilatation of the cranial arteries will be regarded as the effect of excitation of the vaso-motor fibres of the sympathetic, produced by the operation. Many reasons might be shown to justify the opinion that the real function of the vaso-motor nerves is to dilate the arteries and not to contract them. Indeed, it is only on this view of the case that the relations of the vaso-motor nerves to the arteries admit of explanation at all. Take a familiar

example. A little brandy is an undoubted stimulant. It produces flushing of the face, and other signs of arterial dilatation. If the accepted vaso-motor theory were true, there ought, on the contrary, to be arterial contraction, paleness, etc., for on that theory excitation of the vaso-motor nerves by a stimulus causes the arteries to contract, and arterial dilatation is the result of nervous paralysis. To account for the phenomena of this simple case, then, it is necessary to assume that the glass of brandy has paralyzed the vaso-motor nerves, which is manifestly absurd. On the other hand, if we regard the stimulant as temporarily increasing the *dilating* power of the vaso-motor nerves, and these in turn expanding the calibre of the arteries, permitting an in-rush of blood (as also occurs in blushing), the facts and the theory are in accord, and the explanation natural and consistent. Similar examples might be multiplied indefinitely; and indeed, wherever the accepted vaso-motor theory is thus tested in the phenomena of disease and drug action, it will be found inconsistent with the facts.

It can also be shown that excitation of the cranial vaso-motor nerves, as a result of section of the cervical sympathetic, is not inconsistent with the supplementary part of that experiment in which Dr. Brown-Séquard has shown that faradization of the cranial end of the cut sympathetic reduces the dilated arteries to their normal calibre, and thus negatives the effects produced by the irritation of the section. For it is well known and generally admitted, that the electric current relieves pain and produces anæsthesia, at least for a time in nerve-trunks. Anæsthesia is only another name for paralysis, and anæsthetics are paralyzing agents (Dr. Anstie). What more natural, then, than that the electric current, by paralyzing the cranial sympathetic, and thus snuffing out, as it were, the excitation of those nerves induced by their section, should put an end to the *dilating* power of the vaso-motor nerves, and with this restore the normal calibre of the vessels? For further proof of the paralyzing effect of electricity on nerve tissue, see Matteucci's experiment on the spinal cord of the living rabbit, which, during the passage of the current, may be cut, pricked, burned, etc., without eliciting from the animal any sign of pain. We cannot dwell on this part of the subject here, but it is fully discussed in our "Physiological Therapeutics."

We have seen, conclusively, as a result of the destruction of the nervous centres by pithing, that contraction of the muscular coats of the arteries, with reduction of their calibre, takes place independently of nervous influence, of which the fact that the arteries are found contracted* and empty in death from general causes, is a further proof. If, then, as we contend, the influence of the vaso-motor nerves is to *dilate* the arteries (an influence arrested by paralysis or death), the question arises, To what source are we to look for the contractile power of the arteries? The teachings of physiologists themselves supply the answer: to the inherent contractile power of the muscular tissue of which these tubes are in part composed, and with which all physiologists declare this tissue to be richly endowed. We have quoted these authorities at length, on this part of the subject, in the work referred to. It is true they do not assert or admit the independence of muscular contractile power, apart from nerve influence, but they sometimes come so near asserting it that one can hardly help imagining that they refrained from asserting it more through deference to established opinion than from a positive conviction that the assertion was unjustified. Thus Prof. Kuss, of Strasbourg, in his Lectures on Physiology (Duval, Amory), states that "muscular contractility is a purely physical property of elasticity: the rigidity of the corpse is a phenomenon of the same order as muscular contraction in the living body" (p. 88). Dr. Carpenter says of certain post-mortem muscular contractions, that they are "due to the inherent contractility of muscles, and not in any degree dependent upon the operation of the nervous system" (Physiology, before quoted, pp. 327, 328). This eminent physiologist combats the teachings of some physiologists, "that muscles, though not depending on nerves for their peculiar vital power [of contractility], are yet dependent upon them for the exercise of it" (p. 325). If the "hypothesis" here repudiated by Dr. Carpenter be untrue, then the opposite of that proposition must be true, namely, that muscles are neither dependent upon nerves for their contractile power, nor for the means of exercising it, which is all for which we contend. Drs. Todd and Bowman, in their Physiological Anatomy, "protest against the doctrine which assigns the spinal cord as the source of muscular irritability. . . . . It is contrary to all analogy to assign to one tissue the power of conferring vital properties on another. . . . . And surely it is too much to suppose that a tissue-like muscle, so complex in its chemical composition, and so exquisitely organized for the development of its proper force, should be dependent on the nervous system, or a portion of it, for its contractile power" (pp. 302, 303). It will be seen, from these quotations, how very little we claim beyond what is fully admitted, when we ask for the recognition of the independent, as well as inherent, contractile power of muscular tissue in the arterial walls.

The points we have endeavored to establish in this paper may be summarized as follows:

1. Destruction of the nervous centres is attended, not by relaxation of the arteries, as has been asserted, but by a marked and uniform contraction and emptiness of these tubes.

2. Arterial contraction cannot be dependent on nervous agency, nor can arterial dilatation be the effect of vaso-motor paralysis.

3. The vaso-motor theory at present in vogue is erroneous, untenable, and at variance with the facts it is intended to explain.

4. There are strong and valid reasons for believing that the real function of the vaso-motor nerves is (not to contract) but to dilate the arteries.

5. Similarly strong and valid reasons exist for the opinion that the varying calibre of the arteries is due to the antagonism between the dilating influence of the vascular nerves, and the inherent contractile power of the muscular fibres of these tubes; contraction or dilatation resulting in proportion as one or other of these opposing forces predominates.

The practical importance of these views will be apparent in their application to the phenomena of disease and the action of that large and constantly increasing class of drugs known to act on the circulation through the agency of the nervous system. We cannot even glance at these interesting results here, but have done so elsewhere, in the publication mentioned, to which we invite the reader's candid attention. We claim that the theory, here inadequately presented, serves to explain in a natural and consistent manner many phenomena of disease and drug action at present involved in obscurity or perplexing contradictions.

* Dr. W. B. Carpenter Human Physiol., 5th Amer. Ed., p. 234, etc.

JABORANDI AND ITS ALKALOID IN CHOLERA.

By D. B. SIMMONS, M.D.,

YOKOHAMA,

SURGEON TO THE KERR GENERAL HOSPITAL AND PHYSICIAN TO THE CHOLERA PAVILION HOSPITAL

At the commencement of the present epidemic of cholera in Japan I determined to give, in its treatment, the still fashionable medicine jaborandi and its alkaloid a fair trial.

Though my observations are far from complete, or in all respects perfectly conclusive, I have seen enough to convince me that we have in this drug a remedy of undoubted value in the treatment of this disease.

Thus, I find that, in the usual complete or partial suppression of urine so common in such cases, the specific effect of the medicine shows itself with almost equal frequency in exciting activity of the kidneys as of the skin and salivary glands, its administration being followed in some cases by a copious secretion of urine, with great relief to all the symptoms. When the fortunate result is not obtained in so marked a manner, the tendency to the development of uræmic symptoms is apparently less common.

When too great prostration does not exist, the copious perspiration which follows its use is attended, after the first few minutes, with a decided improvement in the character of the pulse; the sense of oppression is relieved, and a reaction often ensues which is far more natural than when produced by alcoholic or other stimulants, and with apparently less tendency to secondary fever.

A curious fact is often observed, that even when there is considerable vomiting, a drachm of the fluid ext. of jaborandi, at best a nauseous dose, is retained till its specific effect is produced. In one case in which there was almost constant vomiting, this symptom nearly ceased on my administering ¼ grain of pilocarpin hypodermically. I find, however, that this remedy has little effect in the more desperate cases, attended by perfect collapse. In fact, I am by no means sure that it does not tend to hasten the already rapidly approaching fatal termination.

PROTOCOINE IN THE DIARRHŒA OF CHOLERA.

This drug has disappointed my expectations somewhat as a remedy for the diarrhœa in this disease. In two cases only where the characteristic rice-water discharges were terribly profuse, two three-grain doses of this drug, administered in quick succession, was followed by their almost immediate and complete arrest.

In those cases, however, in which the discharges are small, with more or less mucus, I have been able to obtain very indifferent results with protocoine.

Treatment of Diphtheria in the Grand Ducal Family.—The cases were treated by Oertel, and his measures were those which he has used for twelve years. They consisted of isolation, inhalation of a disinfectant spray every hour and a half, for fifteen minutes, and inhalation of hot steam (112° to 122° F.); 2.5 per cent. solutions of potass. chlorate, and 0.5 per cent. solutions of acid salicylic were employed. Lime-water and chlorine-water were also used. Internally, large doses of quinine or salicylic acid were given; also alcohol, iron, and other drugs p. r. n. [illegible] cases all got well.

Progress of Medical Science.

Permanganate of Potassa in the Treatment of Chronic Otorrhœa.—Dr. Howe claims to have had excellent results in chronic otitis media purulenta from the use of permanganate of potassa. The solution varied in strength with the severity of the case, two grains to the ounce being used in the milder cases, increased to four, six, or even eight grains to the ounce in the more severe. After thorough syringing with tepid water, a few drops of the permanganate solution were poured into the ear, and allowed to remain five or ten minutes, if it produced no smarting or burning sensation. If decided inconvenience followed, however, it was washed out sooner. When the discharge was at all abundant this was repeated twice daily, and if very profuse, the ear was kept clean by more frequent washings with water alone. Of the 53 cases treated in this manner, 40 have entirely recovered in an average time of thirty-eight days; in 6 the discharge recurs at intervals; in 4 it is continual, but lessened as to quantity and the fetid character of the odor; in 3 it still persists. These results are rather better than follow the use of most of the remedies recommended in this disease. Dr. Howe thinks that in this disease permanganate of potassa can be relied upon to heal safely, quickly, and easily.—*The Buffalo Medical and Surgical Journal*, August, 1879.

Eczema of the Palm.—The opinion advanced by Dr. Spender, of Bath, that all so-called cases of psoriasis palmaris are either modified forms of eczema rimosum or dermato-syphilis, has given rise to some discussion in the British journals. Dr. Liveing fully agrees with this opinion, thinking that simple psoriasis so rarely attacks the palm or sole, that practically we may say those parts are exempt from it. Dr. McCall Anderson, while acknowledging that eczema of the palms often assumes an appearance resembling psoriasis, is unwilling to admit that these cases are all forms of eczema. Eruptions limited to these parts may be, in his opinion, eczema (especially eczema rimosum), syphilis, or psoriasis; the first being more frequent than the second, and the last the rarest of the three. Dr. Anderson thinks that the recovery of certain cases under treatment adapted to psoriasis and unsuitable to eczema, is strong proof of the existence of the former disease. Both he and Dr. Liveing call attention to the possible influence of the gouty and rheumatic diatheses over these palmar affections. The acute or subacute form, Dr. Liveing thinks, is best treated by the application of water-dressing, lead lotions, or linimentum calcis, according to circumstances; the gist of the treatment being never to allow the dressing to get dry. Pretty free purging is generally indicated. The ordinary chronic forms are well treated by the application of lead-ointment; but in all cases the hand should be rested, covered, washed little, and the ointment constantly applied. In those obstinate cases in which the skin is extremely hard, brittle, thick, and cracked, ointments produce no effect, and other means must be adopted to get rid of the outer cuticle, which entirely prevents any chance of cure. This is best done by the constant application, night and day, of a lotion of liquor potassæ (from two to four drachms of liq. potass. to eight ounces of water is usually strong enough). The hand must be enveloped in rags kept constantly wet with the lotion, and covered with thin gutta-percha, or something of the kind. This treatment must be continued until the

cuticle is thoroughly white and macerated, when it will peel and rub off readily. The process may require to be repeated until the epidermis is reduced to its natural thickness and is thoroughly soft; the skin may then be treated with ointments and glycerine in the usual way. Chronic eczema rimosum of the hand is one of the few forms of eczema in adults that is often benefited by the internal use of arsenic.—*The British Medical Journal*, July 5, 1879.

Foreign Bodies in the Brain.—Dr. Wharton has collected three hundred and sixteen cases in which foreign bodies were lodged in the brain, a large proportion of them being gleaned from the "Surgical History of the Rebellion." Of this number, one hundred and sixty recovered, while one hundred and fifty-six died. In one hundred and six the foreign body was removed, death following in thirty-four, recovery in seventy-two cases. No attempt was made to remove the foreign body in two hundred and ten cases, death resulting in one hundred and twenty-two, recovery in eighty-eight. Ten patients are classed as having recovered, who became sufficiently well to attend to their regular occupations, but subsequently died, at periods varying from three years to fifteen years, from the effects of their injuries. Further examination shows that of the one hundred and sixty recoveries forty-nine were not complete, the patients afterward suffering from epilepsy, vertigo, impairment of mind, incapacity for physical exertion, paralysis, loss of sight and hearing; in one hundred and eleven none of these symptoms were noted. Of these one hundred and eleven perfect recoveries, the foreign body had been removed in fifty-six, and allowed to remain in forty-five. From these figures it is seen that after removal of the foreign body recovery followed in 68 per cent. of the cases, whereas when this operation was not performed 61 per cent. of the cases died. Moreover, of the recoveries following removal, 78 per cent. were perfect, while but 51 per cent. of the recoveries with the foreign bodies *in situ* were free from grave symptoms.—*Philadelphia Medical Times*, July 19, 1879.

Tyrosine Excreted by the Stomach in a Case of Cancer of the Uterus.—In a case of cancer of the uterus, the small amount of urea (6 to 7 grammes) excreted by the kidneys induced M. Bruneau to search for it in the saliva and in the vomited matter. The results were negative, but microscopical examination of the vomit showed crystals of tyrosine in the form of long, brilliant needles gathered together in masses. On evaporating some of the liquid with nitric acid, yellowish crystals of the nitrate of nitrotyrosine were formed, which took a brownish red color on the addition of ammonia. As the presence of tyrosine is always accompanied by a diminished production of urea, it accounts for the small quantity of the urea in this case.—*Journal de Médecine*, May, 1879.

Eserine and Pilocarpine in Episcleritis.—Prof. Seeley reports two cases of episcleritis that were treated by instillations of eserine. Recovery in both cases was very rapid, ensuing in one case in two weeks, and in the other in ten days. Dr. Wecker, of Paris, says that the treatment that has given him the best results in episcleritis consists in the hypodermic use of pilocarpine (five drops of a solution of twenty centigrammes to two grammes). He makes the injection in the morning while the patient is still in bed. He says this treatment sensibly abbreviates the slow course of the disease, some patients being entirely cured by eight or ten injections. Along with the injections, he always prescribes the iodide of potassium, and for debilitated subjects preparations of iron.—*Cincinnati Lancet and Clinic*, July 19th.

The Stigmata of Maize and the Arenaria Rubra in Diseases of the Bladder.—As the stigmata of maize are a very recent and as yet but little known addition to the materia medica, the following *résumé* of the conclusions reached by Dr. Dufau, both from personal observation and from the reports of others, will undoubtedly prove interesting:

1. The stigmata of maize have a very marked, though not always a favorable action in all affections of the bladder, whether acute or chronic.

2. In acute traumatic cystitis, and also in gonorrhœal cystitis, they have a very marked diuretic action, but at the same time increase the pain; hence they should not be employed in these cases.

3. The best results have been obtained in cases of uric or phosphatic gravel, of chronic cystitis, whether simple or consecutive to gravel, and of mucous or muco-purulent catarrh. All the symptoms of the disease, the vesical pains, the dysuria, the excretion of sand, the ammoniacal odor, etc., etc., rapidly disappear under the influence of the medicine.

4. The retention of urine dependent on these various affections often disappears as improvement progresses, but the use of the sound must sometimes be continued, in order to empty the bladder completely.

5. The stigmata of maize have very often produced a cure after all the usual internal remedies had been tried in vain, or with only partial success. In other cases the ordinary methods of treatment, which had at first proved more or less entirely useless, became efficacious after the stigmata had been administered for a time, and had, as it were, broken the ground for them. Most frequently the stigmata alone sufficed for the cure, but still in some cases the effect was incomplete, and it was found that the treatment could be varied with benefit. Injections and irrigations of the bladder also proved useful adjuncts to the maize.

6. As the stigmata of maize are a very powerful, though at the same time entirely inoffensive diuretic, they have also been employed with the best results in cases of heart disease, albuminuria, and other affections requiring diuretics. Cases have been reported in which the urinary secretion was tripled and even quintupled in the first twenty-four hours, and others where the exhibition of the drug was continued for two or three months without the slightest untoward effect.

7. The best preparations of the stigmata are the extract and a syrup made from it. The decoction is unreliable and uncertain. The syrup, the usual dose of which is two or three teaspoonfuls per diem, must be largely diluted, and for this purpose either hot or cold water, or a decoction of the stigmata may be used. The taste of this mixture is very agreeable. It should be given fasting.

Another remedy for diseases of the bladder that has lately begun to attract attention, is the *arenaria rubra*, a plant of the order of caryophylleæ. It is known in Algeria by the common name of *sabline*, and has long enjoyed repute in Malta and Sicily as a household remedy for the treatment of gravel and catarrh of the bladder. It seems to be useful in the same line of cases as the stigmata of maize, but as yet our knowledge concerning its powers and uses is very limited.—*Le Courier Médical*, May 3d and July 12th.

Dr. J. Marion Sims.—Among the passengers on the Germanic, which arrived in this city Sept. 6th, we notice the name of Dr. J. Marion Sims.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 13, 1879.

PREVENTIVE MEDICINE.

THE day in which the idea that the whole function of medical men began and ended with the treatment and cure of disease has passed away. There has been what is sometimes called "a new departure" in medical science, and the profession has revived the old doctrine that, in addition to administering drugs, something may be done toward the prevention of disease. The rigorous separation of the sick from the healthy had its origin under the Mosaic dispensation. State medicine is fully set forth in the old Hebrew ordinances, and had the sanction not only of the most cultivated race in the world, but of Divine authority.

There is an apathy and stagnation regarding the importance of State medicine and public hygiene which has its foothold, to a very great extent, in the too negative character of past observations and published statistical results. Those who object to sanitary measures have been accustomed to allude to the negative results of sanitary expenditure, and have boldly asserted that mortality statistics afford no evidence of sanitary progress. In a former article we had occasion to speak of the speciousness of such argument, and what we then said regarding another subject, intimately related to actual population, is equally true with reference to sanitation and mortality—namely, that even a stationary death-rate must be accepted as evidence of progress.

It seems to us self-evident that, if by the aid of sanitary science the rate of mortality can be made stationary, notwithstanding the aggregation to large towns and cities, it must be regarded as one of the triumphs of improving sanitary organization.

At the recent meeting of the British Medical Association, Dr. Andrew Fergus, President of the Faculty of Physicians and Surgeons of Glasgow, read an able address on preventive or State medicine, in which he gave an analysis of the whole of the Registrar-General's returns, and from these he shows clearly that the death-rate in England and Wales is declining; or, in other words, that the mean duration of human life is increasing. The marked decline in the fatality of fever, especially of typhus, he justly attributes to the benefits arising from the adoption of thorough sanitary measures.

There are one or two points in his address to which we wish to call especial attention.

"The first facts that strike us," says Dr. Fergus, in speaking of the lessons drawn from the Registrar-General's returns, "are the increase in the diarrhœal group, the addition of a new zymotic, viz., diphtheria, which does not appear until 1851, and the small diminution of typhoid in the fever group. If we bear in mind that these are excremental pollution diseases, I believe we shall find the reasons of this increase in the fact that we have been careless in the disposal of our excreta, and have been drinking water and breathing air contaminated by it in a state of decomposition."

In the reports which Mr. Simon and Dr. Greenhow have made to the Privy Council can be found the following significant paragraph: "The excess in mortality has in all cases been coincident with one or other of two definite local circumstances: (*a*) the tainting of the atmosphere with the products of organic decomposition, especially of human excrement; or (*b*) the habitual drinking of impure water."

It is an opinion which has generally prevailed that removal of refuse-matter by water is one of the most effectual methods that can be employed, and just here Dr. Fergus's experience becomes especially interesting. We can do no better than to use his own language: "When I first turned my attention to public health, I had the most perfect faith in water-carriage for removal of the refuse of communities; but investigation, experiment, and experience have obliged me to change my opinion. It is a popular opinion that water is a purifier, but in regard to human excretal matter it is a mere shunter. It merely removes the nuisance from my door to deposit it somewhere else, but does not destroy it."

In accordance with this view, he reasons that these offensive matters should not be passed into rivers or into the sea. The results of his experiments have been, that when kidney and bowel secretions are kept separate, decomposition goes on very slowly; if they are mixed, it is more rapid; and if water be added, it is much accelerated. Therefore, as chemical science has told us that water of itself and by itself has no purifying power, we must go back to earth, the original mother of all organized matter, for reliable aid in preventing putrefactive decomposition.

After years of study and observation, this able observer reaches the conclusions that, "if it is true

that organic poisons producing disease may pass from sewage; if it is true that cholera, diphtheria, typhoid fever, and diarrhœa are traceable to taking into our systems, by air or water, the results of decomposition of human excreta; if it is true that these diseases and others from the same causes swell our death-rate and carry off some of the most valuable of our population, then I affirm that the only true sanitary solution of our difficulties is, that all excreta shall either be returned to the earth, or subjected to chemical action rendering decomposition impossible; and I am, furthermore, sure that if a little of the time, skill, and ingenuity, and a one-thousandth part of the money that have been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago."

The system of water-carriage, as Dr. Fergus says, was hailed as a boon both of comfort and of decency, and the popular opinion, at least, has been that there was no better way of avoiding the evil consequences following the prolonged presence of these matters than by removing them by means of an abundant water-supply. It does not necessarily follow, however, if this be not true, that we should return to the abominations of the old privy system, for the resources of sanitary science are numerous and effective.

Commenting upon this address, the editor of *The Medical Press and Circular* says that appeal can be made to positive facts, which prove the possible and salutary results of preventive medicine, and he refers to instances in which the death-rate has been reduced, within a single quarter, from 23 per 1,000 to 8 per 1,000 by a new system of sewerage and new water-works.

There can be no reasonable doubt that the best way to treat every disease is to prevent its occurrence. It is not always possible to do this, but certainly it cannot be safely assumed that, because the disease does not come after precautionary measures have been taken, sanitation is of no avail. Maintain all communities and all houses in good sanitary condition; remove all magazines of decomposing organic matter which are ready for explosion from the presence of a single spark. The terror which an epidemic disease inspires renders it almost impracticable to institute requisite preventive measures, and that which has not been effectively accomplished before the outbreak of the epidemic, must, to a large extent, be postponed until its ravages have passed.

The ideas which Dr. Fergus has presented in his address are worthy of consideration by our ablest sanitarians.

AN APPEAL FOR AID FOR MEMPHIS.

On the fourth of September the Howard Association of the city of Memphis made a public appeal for moneyed assistance in resisting the deadly march of the epidemic of yellow fever. For two months they have battled with the dread destroyer, and now find their treasury exhausted, several hundred sick and convalescents to be provided for, and a large number of nurses to be paid. In their appeal they state that they were hopeful in the beginning that, with the fund then on hand, they would be able to provide and care for the sick; but now, at the end of two months, during which the disease has been in their midst, and with two long months of danger before them, they find their resources exhausted and are compelled to ask for substantial aid. In the year 1878 a like appeal was heard, and the ready heart and willing hand of the medical profession went searching into its pockets, and there came forth that which did honor to the charity of the medical men of the nation.

To the charity of a common people the Howards now appeal for aid in alleviating the suffering of a common brotherhood.

The appeal in 1878, made in the name of the medical profession, and also by the Howard Association, met with a prompt and substantial response, and in 1879 like appeals cannot go unheeded. While our inclination may be to send aid more especially to our own representatives in the field, to their widows and to their orphans, we cannot turn a deaf ear to the statement, "if help is not speedily furnished, we will be compelled to abandon the work we have been engaged in, and leave hundreds to suffer and die for want of a Howard's helping hand."

HEALTH AND RECREATION.

The summer vacation is practically closed. The shortening days and the approach of foul weather has already reopened the offices of many of our physicians. They have been out for recreation and have returned ready for work. They have sought recreation believing it to be an essential to the proper preservation of health and the prolongation of life. They endorse the work and play side of the question, and regard the one as essential as the other if the best practical results are to be obtained. Not long since Dr. B. W. Richardson, F.R.S., delivered a lecture at the London Institution, in which he took the position that, both in the young and the old, there was no difference between work and recreation other than one of sentiment. He believes that the reason why such excellence, physical and intellectual, was attained in the short and brilliant bloom of Greek history, was because in the Greek's career, from beginning to end, there was no such thing as work or play, but only life.

Commenting on this lecture, the *London Times* says that, if we could by some means approach the ideal handed down to us by history, we should in a generation or two attain a degree of health which no mere sanitary provisions, in the usual sense of the term, can ever supply, and the same sentiment is as practically applicable here as there. There are conditions of life,

such as pertain to our climate and manner of living, which perhaps will prevent us from realizing the joyousness of Grecian life. But, besides these, there is the unequal struggle for existence, which dooms so many to the monotonous round of toil until the whole body lends itself to the drudgery like an automaton.

"There is a striking exception," says the learned lecturer, "in the happy class who find in mental labor, of a varied and congenial sort, that diversity of work which is truly a recreation of the healthy and vital powers." To confirm this view, he refers to the conclusion, reached by Dr. Beard, of this country, after examining the life-value of five hundred men of the greatest mental activity, and an equal number belonging to the rest of society—which is, that the brain-workers have a life-value greater by fourteen or twenty years than those whose pursuits are chiefly physical. Dr. Richardson, as well as others, have ascertained that the most influential in prolonging human life is the recreative character of intellectual labor.

Again, the *Times* alludes to Dr. Beard, who describes brain-work as the highest of all antidotes to worry. Scientists, physicians, lawyers, clergymen, orators, statesmen, literati, and merchants, when successful, are happy in their work without reference to reward, and work on in their callings long after the necessity has ceased. Good fortune gives good health, and nearly all the money in the world is in the hands of brain-workers, whose life is one long vacation.

Whether it be true or not that the difference between work and recreation is merely sentimental, there is comfort in mental and physical recreation which can be obtained only by absenting one's self from the drudgery of routine and, to a great extent, automatical labor. A grain of consolation for so doing can be obtained from Plato, who warned his readers against over-cultivation of mind, which, so far from being recreative to the health of the body, would be positively injurious, just as an over-cultivation of muscular power might prove mischievous.

Profiting by the suggestion, we may therefore, avail ourselves of every opportunity that presents itself to resort to the sea-shore or to the mountains, in the belief that by so doing all life will be made healthier, happier, and longer.

ANTIMONY IN PHTHISIS. In phthisical patients attacked with bronchitis there is a condition of the bronchial mucous membrane fraught with peril to the patient. The membrane is congested, swollen, dry, and coated with a thin but tenacious and irritating secretion. This condition may continue for days, producing fever, and paroxysms of ineffectual coughing which exhaust the strength of the patient. In these cases nature fails to bring relief, and our knowledge of the physiological properties of drugs becomes available. There are several that will excite the secretion, but the best is antimony. This, given in doses of $\frac{1}{48}$th of a grain every hour, will, after a dozen doses, relieve the patient and avert his danger.—*Andrew Clark in Addressant Brit. Med. Assn.*

Reviews and Notices of Books.

LONG LIFE AND HOW TO REACH IT. By JOS. G. RICHARDSON. American Health Primers. Philadelphia: Lindsay & Blakiston. 1879.

WE have already referred very favorably to the American Health Primers, and this one, which is the second on the list, is likely to maintain the reputation of the series. The author offers us no *elixir vitæ*, but gives plenty of sensible advice, and those who have the self-control and intelligence to adopt it will reach all the length of days that their constitution allows them.

A TABULAR HANDBOOK OF AUSCULTATION AND PERCUSSION, for Students and Physicians. By HERBERT C. CLAPP. With four plates. Boston: Houghton, Osgood & Co. 1879. 8vo, pp. 97.

WITH the many handbooks on physical diagnosis now in the field, any new one must have some special and notable merit in order to justify its existence. We confess that we are unable to see any great necessity for the publication of the present book. It is simply a tabular presentation of the physical signs belonging to the diseases of the heart and lung, with a tabular analysis and description of the signs themselves. These tables are very well gotten up, and appear to be thorough and reliable. Still, they embrace nothing that is not found in other elementary textbooks. We might perhaps find fault with the author for not including diseases of the abdomen in his book, the physical signs of which being often so intimately related to those of the chest. It is certainly not the thing for a professor in physical diagnosis to teach that the inspiratory sound is caused in part "by the forcible separation of the walls of the pulmonary vesicles." That is not a fact, and is scarcely a plausible theory.

The four illustrations represent the position and relations of thoracic and abdominal viscera, and the name of the firm is a sufficient guarantee that the book is a finely printed one.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE. 1879. Nashville: Printed at "The American" Book and Job Rooms, 18 Church Street.

IT is a volume of 215 pages with paper cover, and contains some interesting articles. The Roll of Honor contains the names of fourteen members of the society who lost their lives in the yellow fever service during the year 1878, and, in the report on the Roll of Honor made by Dr. Wise, a tribute of respect is paid to "the forty-two physicians who, in the city of Memphis, fell at the post of duty and upon the field of honor."

A valuable clinical report on yellow fever, with meteorological observations, is found in the paper by Dr. G. B. Thornton, of Memphis, on observations made in 460 cases. This is followed by an interesting paper regarding the introduction and dissemination of yellow fever by persons or personal contact, by Dr. W. T. Hope, of Chattanooga, Tenn. These are valuable contributions for study at the present hour.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY. For the year 1878. Lansing: W. S. George & Co., Printers and Binders.

THIS volume has a paper cover, and contains 330 pages. The minutes of the recording secretary make

up a large part of the book. These are followed by the annual address of the president, and nine papers on interesting surgical, medical, and obstetric subjects. The Report of the Committee on Necrology embraces memoirs of Drs. Abram Sager, Albert E. Leete, and Edward E. Hume. A pleasing appendix contains a report of the proceedings at the annual reception.

PROCEEDINGS OF THE CONNECTICUT MEDICAL SOCIETY. 1879. Published by the Society. Hartford, Conn.: Press of The Case, Lockwood & Brainard Co.

THIS volume, paper cover, contains 214 pages, and has, besides the report of the usual proceedings at the annual meeting, the President's Address; a dissertation on the Principles of Hygiene and Conservatism in their Mutual Relations to Surgery; the Report of the Committee on Matters of Professional Interest, which embraces several interesting subjects and makes up a considerable portion of the book; essays on Yellow Fever; Alcohol as a Therapeutic Agent; and The Insane Colony at Gheel; several obituaries; a List of the Officers and Members of the County Medical Societies; the Charter of the Medical Department of Yale College; the Charter and By-Laws of the Society; and the Code of Ethics of the American Medical Association.

The last is not the least important of the documents herein presented, yet it doubtless will receive the least amount of candid attention. It makes interesting reading, and should be sufficient to give the volume a local habitation in every medical library.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK. For the year 1879. Syracuse, N. Y.: Truair, Smith & Bruce, Printers.

THIS volume, containing 700 pages, presents an external appearance that is creditable both to the committee on publication and to the printers. In addition to the regular order of material which enters into the contents of the book, we notice the minutes of the Seventieth Annual Meeting held February 1, 1876. This completes the published record of meetings.

The readers of THE RECORD have already had opportunity to read and to study many of the papers which were read at the last annual meeting of the society; but as we glance at them in their new home we find that they have lost none of their original excellence and interest. According to resolution, the metric system finds its place in the body of the work, and although a few errors have found a lodging-place here, they must be regarded as no more than the tares so commonly seen in a good field of wheat. They have been recognized by the secretary, who has directed attention to them in the corrigenda at the end of the list of county medical societies. The volume contains the list of officers and members of every society entitled to send delegates to the State Medical Society, and, with one or two exceptions, these have been corrected up to the time of the last annual meeting of the various county medical societies. This is a commendable feature of the book, and reflects credit upon the industry of the secretary.

Space does not permit of an extended review of each paper, and we must be content with the statement that in general they are good; some of them very excellent, and are from gentlemen of deserved and recognized position in the medical profession.

This volume will make a valuable addition to the series which contains the transactions of the Medical Society of the State of New York.

Reports of Societies.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Third Annual Meeting, held in the City of New York, August 26th, 27th, and 28th, 1879.

(Concluded from page 232.)

WEDNESDAY, AUGUST 27TH.—SECOND DAY.—MORNING SESSION.

THE first paper on the second day was one by DR. H. G. PIFFARD on

VIOLA TRICOLOR.

The first part of it was devoted to a *résumé* of the literature of the subject, in the course of which he quoted at large from Cazin, who has experimented considerably with the drug, and used it with success in practice. He then read as follows from a brief article upon it, written by himself in the American edition of Phillips's *Materia Medica and Therapeutics*, which has just been published by Wm. Wood & Company, and of which he is the editor:

"*Active Ingredients.*—Little known. Boullay failed to find violine in the plant. (Gubler.)

"*Physiological Action.*—A strong infusion made from ℥ ss. to ℥ j. of the herb, without the root, does not give rise to any suspicion that it contains violine or emetin. Its action is exceedingly mild; sometimes proving slightly laxative, at other times diuretic; as a rule giving rise to very little disturbance.

"THERAPEUTIC ACTION.—Viola tricolor has long been a favorite in France in the treatment of eczema capitis et facei, and the editor has employed it for many years with great satisfaction in chronic cases of this affection. The watery preparations have appeared to answer better than the alcoholic, and our usual procedure is to give it in infusion, combined with purgative doses of senna for the first few days. Afterwards the violet is continued alone. For children Cazin macerates ʒ j. to ʒ ij. in half a pint of cold water for twelve hours, then boils the infusion and adds a little milk and sugar. This amount to be taken daily. . . . . The imported herb should be employed, and care taken to procure a good quality. Most of it in the market is inferior."

Dr. Piffard exhibited various specimens of the drug, procured both in this country and abroad, and stated that it was very difficult to get two that were at all alike. He also showed a fluid extract which was made from some that he had had imported. He believed it to be of the greatest service in eczema about the upper part of the body, and especially the head; while when the affection was situated on the lower part of the body he had found it to be frequently aggravated by the drug. The dose of the fluid extract for adults was a fluid drachm, and for children five to ten minims.

The paper was discussed at length by Drs. Taylor, White, Hardaway, Fox, Sherwell, Wigglesworth and Heitzman.

The next paper was by DR. VAN HARLINGEN, and was devoted to

A CASE OF HITHERTO UNDESCRIBED VESICULO PUSTULAR DISEASE OF THE SKIN

The patient was an unmarried German woman, thirty-nine years of age, whose family history was good, and who had never had any tendency to scrof-

ula. The skin trouble began at a very early age, but was noticed in an aggravated form when she was fifteen years old. It had continued ever since, but was always somewhat better in the early autumn than at any other time of the year. On examination it was found that there were two forms of disease present. The first was an eczema, ill-defined and irregular, and principally located on the head, anus, and back; while the second, which was situated almost entirely on the legs and ankles, consisted of single lesions. These were large tubercles, distinct and solitary, oval in shape, and often of the size of a thumb-nail. They were slightly elevated, and in some a small amount of pus was found in the centre, which was depressed. When these tubercles began to form, there was first local itching, and then an urticarial elevation. In about eighteen hours they were fully developed, and had reached a size of from one to one and a half centimetres; looking somewhat like large mint-drops. Later, exudation took place, and finally depression in the centre; the fluid becoming pustular. The nodule might last altogether for years; but at length it became pigmented and sank to the level of the surrounding surface, a white spot always being left in the centre. Itching was not excessive, and there were no marked subjective symptoms. Iodide of potassium and bichloride of mercury were tried without benefit, and the only thing that seemed to cause any improvement whatever was the application of Dr. Bulkley's *liquor picis alkalinis*, which was employed for about a month before the patient passed from observation.

The lesion was at first supposed to be probably a scrofuloderm; but a microscopical investigation showed it to be of a purely inflammatory nature. There was nothing like a genuine cell-infiltration, such as is characteristic of the scrofuloderm.

After remarks upon the case by various members, Dr. S. Sherwell read a paper entitled,

"TATTOOING OF NÆVI."

At its commencement he passed around the instrument with which he had performed his operations, and which consisted simply of a bundle of coarse needles securely fastened together. It had been constructed by Dr. Sherwell himself. The paper, he stated, was supplementary to one which he had previously read before the New York Dermatological Society, and in which the method had been fully described. He wished now merely to speak of its continued success, and to describe one case in particular where the result had been very satisfactory. The patient was a lady of twenty-seven, who before he took her case in hand had been so disfigured that it had proved not only a source of annoyance, but also of positive detriment to her in obtaining the kind of employment that she was best suited for. The nævus was of the port-wine-stain order, and covered the whole of the chin. There was also a large patch of similar discoloration in the centre of the cheek. The latter was cured after one operation; but four had been performed upon the principal nævus. Two were extended over the whole surface, and two had been confined to those portions where there was the most disfigurement left after the two general tattooings. In one final operation, shortly to be performed, it was thought that the cure would be completed.

Dr. Sherwell stated that he had not changed his after-treatment since he had written his last paper, and that he was more than ever favorably impressed with the advantages of the application of collodion. As mentioned before, he had hitherto used only an instrument of home manufacture; but at present Tiemann was making one for him which he hoped would prove even more serviceable. He wished it distinctly understood that the only nævi which he claimed to cure in this way were of the cutaneous variety.

In the discussion which followed the paper Dr. Hardaway spoke in the highest terms of the method of treatment by means of electrolysis, where a number of very fine needles were employed.

The next business in order was the report of the Committee on Statistics, which was made by the chairman, Dr. White, and which contained a special report on the subject of leprosy in this country. This was followed by the report of the Committee on Classification and Nomenclature, made through its chairman, Dr. Duhring, which recommended that carcinoma should be made a separate subdivision under Class VI. (New Growths), in the classification adopted by the Association last year. On motion, the recommendation was adopted.

AFTERNOON SESSION.

Dr. Hardaway, of St. Louis, read a report of

A CASE OF MULTIPLE TUMORS OF THE SKIN ACCOMPANIED BY INTENSE PRURITUS.

The disease in question had existed for twenty-two years, the patient now being fifty-one years of age. It was stated that the first lesions were "blisters," accompanied with itching, and that whenever the fluid from one of these blisters came in contact with sound skin, another similar lesion was produced. Not long afterwards the tubercles and tumors from which the patient now suffers made their appearance, and they have remained almost without change ever since. These tubercles and tumors (the latter ranging in size from that of a pea to that of a hickory nut), the writer said, were about in equal proportions, and a very curious feature of the case was that they were exclusively confined to the arms, hands, legs and feet; the area affected terminating abruptly at the shoulders and the knees. In their natural condition these lesions are covered with thickened epidermis, but, as a general rule, this had been removed by scratching. In some cases the tumors had come together, forming a large nodular mass, and, in addition, there were a number of flat plaques of the size of a child's palm. The intolerable and persistent itching was the most annoying feature of the case, and had given rise to much irritation of all the affected parts.

The patient had taken iodide of potassium, arsenic, mercury, and other remedies, and cauterization of the tumors had also been resorted to. She thought the pruritus had diminished somewhat during the last few months; but the scratch-marks were still painfully evident. The peculiar limitation of area, the intense itching, the persistence of the lesions; and, notwithstanding all, the good general health of the patient, seemed to make this a unique case. Specimens from the lesions had been submitted to Dr. Heitzman for microscopic examination, who reported that there was marked hyperplasia of both the epithelial and connective tissue, and that he regarded the trouble as an inflammatory affection of the upper layers of the skin.

The next paper was by Dr. Duhring, and entitled:

SUPPLEMENT TO A CASE OF INFLAMMATORY FUNGOID NEOPLASM.

The case referred to was the one in regard to which Dr. Duhring had written such an elaborate report for

last year's meeting, when he also brought the patient to Saratoga for examination. Before commencing the paper on this occasion, he exhibited a fine chromo-lithograph of a precisely similar case reported by Gehr, to which he had alluded last year. This, together with the cases of Piffard and Hebra (also referred to at that time), and the case under consideration, constituted all that had as yet ever been recorded. After the date of the last published notes in regard to it, October 1, 1878, the patient continued to exhibit signs of increasing cachexia, although a striking characteristic of her case was the variability of her condition from day to day. She suffered much from the profuse suppuration of the lesions, which was accompanied by the most extreme fetor. The consolidated tumors on the forehead increased to an enormous size, and at last presented a striking resemblance to a huge roasted tomato. As it gave her so much annoyance, and she was exceedingly anxious for the operation, it was finally removed by the galvano-cautery, and although the growth was remarkably vascular, there was no hemorrhage whatever. This was true, also, of the removal, in a similar manner, of a large tumor in the popliteal region. In this respect a striking contrast was presented by the two former operations, which were described last year, and which, as they were performed with the knife, were accompanied by a large amount of hemorrhage.

The case resulted fatally early in the month of May, 1879, and at the autopsy it was found that none of the internal organs were affected with the disease except the bladder, on the walls of which there was a growth corresponding in character to those on the exterior portions of the body. After a careful study of the whole case, Dr. Duhring concluded that the affection was, in all probability, of an inflammatory nature, although some of the microscopical features of the specimens from it seemed to point towards sarcoma.

Dr. Heitzman regarded the disease, although presenting some very unusual clinical features, as distinctly sarcomatous, and thought the subsequent history of the case only substantiated the correctness of the views which he had expressed in regard to it last year.

Dr. Atkinson remarked that here the histological character of the tumors was, to a great extent, inflammatory; but combined with this were also the characteristics of a new growth. It was a case, therefore, which showed us the border-land between the two processes, and one that should teach us that we ought not to make boundary-lines for nature and expect her to keep strictly within them.

After remarks by Dr. Taylor, who took Dr. Heitzman's view of the case, and Dr. Bulkley, who took Dr. Duhring's, Dr. Fox said that he thought this discussion was an apt illustration of the conflict between microscopic and clinical investigation. Some erred on one side and some on the other; but he was satisfied himself that in all such cases as this, as long as our microscopical knowledge remained in its present state, the clinical features presented the surest basis for diagnosis.

As to Dr. Heitzman's unfavorable prognosis, Dr. Sherwell thought that it was pretty evident to all who saw the patient last year at Saratoga that she would die. The name fungoid neoplasm he thought a sufficiently good one in the present state of our knowledge of such cases, and especially as it did not exclude the idea of a sarcomatous element.

The last paper of the afternoon was by Dr. Hyde, on

A VARIETY OF MOLLUSCUM VERRUCOSUM PRESENTING CERTAIN UNUSUAL FEATURES.

The patient was a native of Germany, thirty-five years of age, who, as far as known, had never had syphilis. Between two and three years ago he first noticed a number of spots on the left buttock, which were as large as pin-heads and of a white color. They then spread over both the thighs; finally exhibiting the features visible at the time the case was first seen (August 16, 1878), and at the end of a year from when they began, entirely disappeared. Three months afterward, however, the eruption again broke out, and when first examined by Dr. Hyde it presented the following appearances: The integument of the trunk, buttocks, thighs, legs (to the tips of the toes), and, to a slight extent, the hands, was covered with bodies which looked like papula-pustules, but which were found to contain neither pus, serum, nor any other fluid. The newer lesions were of a dead whitish hue, and resembled miliums in their general appearance, while the older ones were of a delicate crimson. All, however, possessed the waxy white summit which was the distinguishing characteristic of the eruption. They involved the entire thickness of the integument, and were surrounded by perfectly healthy skin. By January, 1878, the lesions had almost disappeared; but as the warm weather came on in the following spring, there was a well-marked recurrence of the trouble. During the present season, however, the patient had been entirely free from the disease.

Owing to certain circumstances which Dr. Hyde explained, no microscopical examinations of the lesions were made. The writer discussed the probability of the affections being atelangiectasic or a lymphangiomatous growth, and expressed the opinion that the diagnosis was by no means an easy one. After referring to various authorities and particularly mentioning Hutchinson's cases of *molluscum contagiosum*, he quoted a letter which he had received from Prof. Kaposi, of Vienna, in reply to one of his own describing the case, and said that in deference to the views stated therein he had concluded that it was probably one of *molluscum verrucosum*. At the conclusion of the paper Dr. Hyde exhibited a painting of the back, buttocks, and posterior aspect of the thighs of this patient, and the eruption was seen to present a very striking resemblance to that of small-pox.

Dr. Hyde also stated that under the finger the lesions felt very much like the variolous papule before the stage of pustulation.

Dr. Atkinson mentioned a case of probably similar character which he had met with in the person of a young mulatto woman. Unfortunately, however, the patient had almost immediately passed from observation.

THURSDAY, AUGUST 28TH.—THIRD DAY.—MORNING SESSION.

The first paper read was by Dr. White, on

ETIOLOGY.

In opposition to many of the primitive beliefs handed down from former generations and still prevalent in the minds not only of the laity, but a considerable part of the profession, as well as to many erroneous theories of more recent origin, the writer urged the following points with great force:

1. The autonomy of the skin, or its inherent right to diseased action.

2. That the pathological processes found in the skin were identical with those met with in other parts of the system.

3. That the same methods of observation and induction which were employed in the investigation of disease in all other portions of the body were equally applicable to the skin also.

In his criticism of various unfounded opinions (according to his views), the writer scouted the idea of diathesis, as advocated by the French school of dermatologists, and the whole tone of the paper was strongly in support of the local, rather than the internal origin of diseases of the skin. It was followed by a prolonged and animated discussion, which was participated in by Drs. Heitzman, Fox, Sherwell, Taylor, Bulkley, Hyde, Wigglesworth, Van Harlingen, and Hardaway.

The next paper was one by Dr. R. W. Taylor, of New York, on

THE NATURE OF SYPHILIS.

In the first part of it he took up in turn the various terms which have been employed by different authorities to express the nosological relations of syphilis, and pointed out to what extent they were all incorrect and unsatisfactory.

The remainder of the paper was devoted to a statement of his own views, as follows: Our own conclusion is that syphilis is a disease of the connective tissue, and not primarily of the lymphatics or of the blood-vessels, although the blood may be temporarily modified and may be the vehicle of contagion.

The secretions of syphilitic lesions are found to consist of a serous fluid containing numerous shining granules or molecules, which are masses of protoplasm or germinal matter, holding the contagious properties of syphilis. These microscopic bodies are probably taken into the circulation by the lymphatics and conveyed over the body. Possibly they are absorbed by the blood-corpuscles, or the latter are infected in some mysterious manner by these actively increasing morbid cells. The fact that serum alone does not convey the syphilitic poison goes to prove that the corpuscles hold the contagious material.

In the secondary period of syphilis these cells are very numerous, and the body may be covered with papules and tubercles composed of them. As the disease wanes, these lesions become more localized and fewer in number, and the blood is less contagious. Finally these cells may be limited to a few gummous tumors; the blood no longer carries the molecules, and it loses its contagious properties. The cells no longer have a tendency to reproduction, which characterizes them in the early stages, but rather degenerate. Hence we consider the blood and secretions in tertiary syphilis innocuous. Even if cells are present, they are old and inactive, and are incapable of reproducing themselves. Lancereaux states that he has often punctured himself in making autopsies on subjects with gummy tumors, and has never seen any bad result.

The periods of latency observed in the course of syphilis are of interest, and may perhaps be explained in the following way: Each outburst is attended by the development and multiplication of the peculiar cells, which run their course and are finally absorbed. Some remain, and after a time are excited by unknown causes to activity. Thus repeated exacerbations may recur, each one depending upon the multiplication of cells remaining from a previous outburst. But each relapse is less active and less prolonged than its predecessor, until perhaps only one nodule, and that composed of effete cells, may remain. The disease is then cured. This explanation may seem to apply imperfectly to those cases of prolonged latency in which no lesion whatever has been perceptible. Virchow thinks that in these cases the lymphatic ganglia have been the places of deposit of the syphilitic cells, which, at the expiration of the period of latency, undergo the changes mentioned. In any case, the specific cells must be hidden away somewhere in the system, since the continuance of the disease depends upon their existence.

With this view of the nature of syphilis, its effect upon the health and upon the organs and tissues may be readily comprehended. In the early active stage of proliferation the red globules are diminished and the white increased in number. The depressing influence of syphilis is thus fully accounted for. Digestion is impaired and the tissues are poorly nourished. Finally, the functions of vital organs may be perverted, or destroyed by the cell-changes produced.

Dr. Atkinson said that he was somewhat surprised that Dr. Taylor should speak of a specific cell. He believed that in nature only a certain kind of cells would be found under any circumstances, and he did not see how it was possible that any different ones should be formed. Neither could he imagine a condition in which the cells referred to by the writer should become so old as not to be reproductive, if they were alive at all.

Dr. Heitzman thought that too much was assumed in the paper, and not enough proof given in support of the statements made. Let us demonstrate what syphilis is, said he, and then we can form any number of hypotheses.

In reply to the latter, Dr. Taylor remarked that all the points stated by him had been substantiated by the careful microscopical investigations of Lancereaux, Wagner, and a host of other distinguished authorities.

The last paper was by Dr. Hardaway, on

A SIMPLE METHOD OF OBSTRUCTING THE VARICOSE VESSELS IN ROSACEA.

The procedure recommended was essentially the same as that described by Dr. Hardaway in his paper, presented last year, on the removal of superfluous hairs. Electrolysis, by means of a fine needle (No. 13 cambric), was the agency employed; the only difference being that it was unnecessary to introduce the needle to such a depth, or keep it in the tissues so long, as when the aim was destruction of a hair papilla. Six or eight cells of a moderately good battery were sufficient, and a few seconds all the time that was required for the operation. If the vessel was a long one, however, two or more punctures along its course were required. When a small needle, like that recommended, was used, the parts presented no abnormal appearance whatever afterward, and no cicatrix remained. Dr. Hardaway had performed the operation successfully in several cases, but he could not speak with any great confidence of it as yet, although he felt thoroughly convinced in his own mind that it would prove of great service. His principal object in bringing the matter before the Association, however, was to induce the other members to make a trial of it when they had the opportunity.

With a discussion on the paper by Drs. White, Wigglesworth, Hyde, Sherwell, and Bulkley, the scientific proceedings were brought to a close.

On motion of Dr. White, a vote of thanks was tendered the retiring Secretary, Dr. Taylor, for the efficient manner in which he had performed the duties connected with the position, and the satisfactory and comfortable arrangements which he had made

for the meetings and the accommodation of the members during the last two years.

In a few concluding remarks the President, Dr. Duhring, congratulated the Association on the great success of the meeting just brought to a close. The papers, he said, had been able and the discussion most interesting and profitable, while the sessions were completely harmonious throughout. He was deeply conscious of the high honor which had been conferred upon him in electing him to the presidency a second time, and he could only say that in the year to come he would do all that he could to promote the interests of the Association and to render it as useful an organization as possible.

The Association then adjourned to meet at Newport on the last Tuesday of August, 1880. In the afternoon a clinical meeting was held at the New York Hospital, for the examination of various cases of interest that were presented by the members from New York and Brooklyn.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 11th, 1879.

Dr. J. W. Howe, Vice-President, in the Chair.

(Continued from page 212.)

FIBROUS TUMOR OF THE UTERUS.

Dr. Finnell presented a uterus, to which was attached one large and several small fibroid tumors. The large one was attached to the fundus, and all were subperitoneal. The entire mass weighed four pounds. The uterus measured five inches in length. The os was normal, and indicated that the woman had never borne children. The large tumor was calcified.

The specimen was removed from the body of a woman 58 years of age, who had been gagged and murdered at her residence in Forty-second Street of this city.

The brain, lungs, kidneys, and other organs were apparently healthy, with the exception of a moderate degree of congestion. The lungs were slightly œdematous. There were no blood extravasations in either the brain or the lungs. It was thought that she died from suffocation. The right side of the heart was empty, and all the valves were healthy.

FIBROUS TUMOR OF THE UTERUS—CYST OF THE RIGHT OVARY—CYSTIC DEGENERATION OF THE LEFT KIDNEY.

Dr. Leo presented a fibroma of the uterus, a cystic ovary and a cystic kidney removed from the body of a woman 48 years of age, who was a patient in the service of Dr. Blumenthal in one of our public institutions. The patient first began to complain last December, when she had pain in the region of the kidney and other symptoms, and passed only about twelve or fourteen ounces of moderately albuminous urine daily. Not long after she had considerable œdema of the lower extremities, and a month later still there was distention of the abdomen, which increased steadily. Dr. Blumenthal then made a diagnosis of fibroma of the uterus, and thought there was also other disease present.

The case progressed from bad to worse, the abdominal distention increasing, diaphragmatic respiration became seriously impeded, threatening asphyxia developed, and upon consultation the abdomen was aspirated, and four or five gallons of fluid drawn off. It was examined microscopically and spectroscopically, but with only negative results. An additional gallon of fluid discharged spontaneously. The wound closed, the peritonitis continued for about twelve days, and finally subsided with every indication of recovery. Suddenly the urine became excessively albuminous, sp. gr. 1030. Uræmia developed, and death occurred two days ago.

At autopsy a fibroid tumor was found attached to the uterus, and there was also a cyst of both ovaries. The right kidney was also cystic; but it was impossible to remove the kidneys on account of excessive softening and fatty degeneration.

An interesting point in treatment was that neither of the cysts was punctured when the abdomen was aspirated. The cysts each contained about a pint and a half of fluid, and there was besides about one gallon of fluid in the abdominal cavity. It was evident to Dr. Leo that the ascites was produced by mechanical pressure.

Dr. Blumenthal remarked that the patient was an unmarried woman, who, until six months ago, had enjoyed comparatively good health. It was not until her ovarian trouble developed that she began to complain. The cysts were not sufficiently large to account for the distention of the abdomen, and it was evident that there was, in addition, ascites. Aspiration was performed with the view of relieving the symptoms developed by the immense abdominal distention, such as difficulty of respiration, and not with the view of tapping the ovarian cysts. As far as direct results were concerned, the aspiration was successful, for the difficulty of respiration was relieved. An operation for the relief of the ovarian disease was contemplated, but was prevented by the death of the patient. The autopsy, however, revealed a condition which would have rendered an operation impossible.

FLESH MOLE.

Dr. Heitzman presented what was sometimes called a flesh mole, or a placenta, in this instance in the fourth month of pregnancy, occurring in a patient of Dr. L. Weber. Microscopical examination revealed the presence of fat with only a small amount of the original placental tissue remaining. Almost the entire tissue had been replaced by hemorrhagic clots. The remaining deciduous portion had undergone extensive waxy degeneration.

VILLOUS MOLE.

Dr. Heitzman also presented what he denominated a villous mole, or a placenta, that had been entirely transformed into pedunculated berry-shaped masses. Microscopical examination revealed that these little bodies were cysts which contained blood, not in a fresh condition, but coagulated fibrin, and blood-corpuscles that were somewhat disintegrated. There was no evidence of waxy degeneration. The question arose whether such a villous condition could not be the starting-point of a future cystic mole.

Dr. Heitzman also presented a six-weeks' placenta with embryo in place, that had been brought to him by Dr. C. A. Loring. The entire placenta exhibited a yellow color, and had the appearance of fatty degeneration. Dr. Loring also expressed the opinion that it was probably fatty. But in that, as in others, the microscope revealed waxy degeneration of almost the entire solid part of the organ. The villous portion had also undergone waxy change.

With reference to the specimen of placenta presented by Dr. Putnam-Jacobi at the last Stated Meet-

ing of the Society, Dr. Heitzman remarked that it also had undergone marked waxy change.

There were doubtless protoplasmatic bodies in the decidua which were scattered globules of fat, but the fatty change was so slight in comparison with the large mass of homogeneous shining material, that he did not hesitate to say the principal degeneration was waxy in character.

The Society then adjourned.

Correspondence.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

II.

When Mr. Smith urged me to see his child, after my consultation with Dr. White, I told him that I could not do so because Dr. W. was the regular attendant. Besides, I was overrun with work, and it was but fair that Dr. W. should have a start and make a living. I further said that I appreciated the feelings of a father who was anxious about his son, but, under the Code, I was forbidden to help him out of what he believed to be his difficulty. My assurance that the child would probably recover did not comfort him much; neither did he seem satisfied when I informed him that I would from time to time give Dr. W. such hints as occurred to me, as Dr. W. generally consulted me privately about his difficult cases. Such a trait, in my opinion, recommended him as a young man who was conscientious to his patients, and not afraid nor ashamed to learn.

Just then Dr. White dropped in the office and was somewhat surprised to see Smith and I in conference. Smith was, however, astonished, and for the moment did not know what to do. This gave me my opportunity to put both at their ease by saying that Mr. S. was naturally much worried about his child, and not knowing anything about the Code, had dropped in to talk over the case, and that I had comforted him by telling him that Dr. W. was just the man for the case, and that it was not proper for me to interfere by word or act. Dr. White was pleased, and the ice was broken for a general conversation. The latter ended by my promise to be present at a consultation on the morrow. After Smith left, Dr. W. and I had a frank conversation upon the proper relations which should exist between patient and physician, and between each other; at the same time he intimated that Smith seemed to be a little dissatisfied. White did not believe in keeping cases against the will of the patient, and became virtuously indignant at the want of confidence in him. So incensed did he seem that I was fearful that he might give up the case at once. However, I coaxed him to hold on and he finally left in good humor.

The following day I arrived at the patient's house before Dr. White, and waited for him at the bedside. While so doing I learned that Harry had three passages since the night before and was worse. The mother then showed me the medicine that Dr. W. had ordered. I said that there must be some mistake; that in fact the remedy was the same as the child had been taking when I called, and signified my desire to see the new medicine. When informed that the mixture was made by Dr. W. since the consultation, I at once smiled and changed the subject. The mistake arose from the fact that Dr. W. had repeated the rhubarb and soda instead of using the chalk mixture. Although this annoyed me somewhat, I merely remarked that Dr. W. must have misunderstood me; that the medicine should be white instead of red, and that I would explain the matter to him when he came. In the course of the conversation I learned that each time after partaking of the medicine the child became worse, but I merely said that she could stop giving the remedy, and that we would make it right when the doctor arrived. Just then he came in. I had the bottle of medicine in my hand, and apologized for my apparent interference by remarking to him that he had misunderstood me, and that the child appeared to be worse. He blushed somewhat, and said that he had none of my medicine with him at the time; a remark which was very indiscreet in presence of an anxious parent. However, I said that as I carried it around with me always and used it a great deal, I would give him some. Accordingly I made the mixture on the spot, administered it to the boy, and retired to consult. White agreed to continue with the chalk mixture, and, when we returned, the boy said he felt good, wanted to sit up, and said he was hungry. I playfully remarked that he liked his medicine, and that he was getting better already. Dr. W. smiled also, and the mother seemed to be quite happy. Shaking hands with little Harry and patting his head, I took my leave, saying that the doctor had done everything necessary, and that I had nothing more to suggest. We left together. W. apologized for not using the chalk mixture the day before. I told him that it was a small matter, but was on my part sorry that I had alluded to the fact before the mother. The next morning White called on me to say that, although the child had improved the family had dismissed him, and urged me to see the case. I felt very delicate about the matter, but as I knew that my former partner would be called in, and as Dr. W. and the family were both willing, I consented, if sent for, to see the case through. After coming to such a conclusion, Dr. W. thanked me for what I had done for him, and assured me that he was willing to leave himself and his former case in my hands. Harry recovered in a day or two, but all I can do I cannot persuade the mother to employ Dr. W. any more. Can I do more?

I have often tried to impress upon Dr. W. the importance of humoring his patients, and have many a time told him that he was too dogmatic. On several occasions I have been placed in an apparently false position by his obstinacy. To give an instance: A wealthy gentleman from the city built a fine mansion in the village and came with a letter of introduction from a college professor to Dr. White. Dr. W., of course, had the family. I was glad to hear of his good luck, especially as the wife of the gentleman was an invalid, and required a great deal of attention. One day on driving past I was hailed by the servant, who asked me to step in and see his mistress. I obeyed the summons, and found a delicate lady reclining upon a lounge, complaining of a ball in her throat, great oppression in breathing, great pain in left side, and a desire to urinate frequently. She informed me that she was Dr. White's patient, but was somewhat discouraged with his treatment. I at once told her that Dr. White was a splendid fellow, one who had a great opportunity for working out her case; that although he had but few patients, he loved to study, and was, on the whole, a very safe, if not too cautious, a practitioner. But this did not quiet her pain. She said that Dr. W. had not only left her

medicine which made her worse, but that he had insisted upon her taking it in spite of the pain. I asked her, with honest incredulity upon my countenance, whether he actually said so. I tasted the medicine and repeated the question with a like answer. Being then assured that there was no mistake, I said that he was probably right, but that she had better not take any more of the medicine until I saw Dr. W. She then seemed better satisfied. I found, on questioning her, that Dr. W. had not made any vaginal examination, nor had he hinted at any. Some way or other she squeezed out of me an opinion that her whole trouble was uterine, and that an examination was necessary. I think I told her as much before I knew whether or no White had expressed any opinion. At all events to humor her, I examined her on the spot and discovered an abrasion of the os. I promised her that I would tell Dr. W about it and left her without any further suggestion. Now W. is one of those stubborn chaps who do not believe in abrasions, but I tell him almost every woman has them, or ought to have them, and he will be always safe in a diagnosis. He informed me that he did not intend to humor such a prejudice on the part of his patient and seemed a little angry. In spite of all I could do when the husband of the lady sent for me to attend her, I could not persuade her that White was of the two doctors the better man. This case, by the way, narrowly escaped going to my partner, who is a uterine man, and who is favorably known among the laity as the inventor of a self-entering, self-retaining, back-action speculum. I do not think much of his instrument, however, as I have invented one of my own. It is needless to say that the case progressed favorably, and I secured a good fee. It might just as well have gone to Dr. W., but I did the best I could for him as a professional brother. The result of this case was published in our town paper, but as I was Chairman of the Committee of Ethics of our County Society, I explained the case satisfactorily.

Although I have gone somewhat in detail regarding the matter of this epistle, it has been my desire to show that with every appearance of having actually stolen patients from Dr. W., I did everything I could, "under the Code," to protect and befriend him. And yet there are some who say that there is no necessity for a code.

* * *

PINE RIDGE ON THE HUDSON.

CHOLERA IN JAPAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The cholera epidemic which we reported last mail as severe in the southern provinces of this empire, has at last crossed the mountain barrier which separates them from the capital and the northern half of the island of Nipon.

Though the daily number of cases in Yokohama and Tokio are as yet few compared with that reached in the cities of Kobe and Osaca in June and July, there is still time for sad havoc before the cold weather sets in. The returns up to the 25th of July, from the infected localities referred to, show a total of 31,759 cases, 18,017 deaths, 3,731 cured, 10,011 under treatment. The daily number of cases in Yokohama at this date average from 15 to 20, with a mortality rate of about 50 per cent. The majority of these are received in a well-constructed pavilion hospital of 100 beds. The energy displayed by this people, to whom systematic treatment of epidemic diseases is nearly new in the use of the most improved means of combating the spread of this scourge, is truly wonderful. We shall have occasion to speak of this in our report at the close of the year.

A detention quarantine of vessels from infected ports, which was established for a time with the hope of retarding at least the progress of the disease in this direction, has been raised, and the inspection system substituted.

D. B. SIMMONS, M.D.

YOKOHAMA, August 12, 1879.

TREATMENT OF YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Notwithstanding the many communications regarding yellow fever, I cannot help writing a few lines in reference to an article in issue of RECORD August 16, 1879, where attention is called to the helplessness of physicians in the treatment of yellow fever of the past year. It is much to be regretted that our therapeutics is not more efficient; but, like all epidemics of the severer type, the same want of success will apply. This certainly holds good in the strongest sense in cholera, and yet there is no better field in the world than that which the army surgeons of India have for the study and the treatment of the disease. Every variety of treatment has been tried, and what has been apparently very successful in one year or one section, has been quite the reverse another season; this holds good with other diseases, and especially with yellow fever. Every year brings out some new treatment, to be again thrown aside next year as no more reliable, and as unproductive of good as the preceding. There is no question about the pathological condition being one of congestion—that is, one of the factors of the case, but one only. Watch the disease thirty or forty years, and the pathological condition will be an enigma. While the experiments of Dr. Leared are interesting, I can see no analogy between the cases mentioned and those affected with yellow fever. In the latter the blood is frequently thick and sluggish, having apparently lost its more fluid parts, and excessive sweating is not likely to replace it. In the treatment of yellow fever the induction of diaphoresis is an early desideratum, and is promoted by hot mustard pediluvium, warm teas, etc., bricks made warm, wrapped in flannel and sprinkled with alcohol, vinegar, etc. But those measures do not shorten the fever that runs its course while free sweating is progressing; but carry this to excess, which seems to be relied upon, and the patient's strength is exhausted, and there is not left the recuperative powers necessary to convalescence, and I cannot but think the excessive sweating induced by the Turkish bath, so far from relieving, would in fact have the tendency of inducing congestion of the brain. I have, in fact, witnessed cases where excessive sweating has been a strong factor in the cause of death. I would give cases, but this paper is now more than I expected to write.

JAS. COWLING, M.D.

HOUSTON, TEXAS, August 29, 1879.

NASAL CATARRH.—

℞. Ext. pini Canadensis.....	♏xx.
Glycerine	3 ss.
Aq	Oj.

M. To be used with post-pharyngeal syringe.

This, it is said, will often cure when astringents utterly fail.—*Western Lancet.*

CONTROL OF PATIENT'S TONGUE DURING LARYNGOSCOPIC OPERATIONS.

To the Editor of The Medical Record.

Dear Sir:—During the past three years, and while engaged in the throat department of an extensive clinic, the writer has dispensed with any assistance from patients in holding or controlling the tongue during laryngoscopic operations.

By exercise and training of the fingers of the left hand it is not difficult for the operator to control the tongue, and at the same time to hold the throat-mirror in position with these fingers.

The manœuvre, as practised by the writer, is as follows: The throat-mirror, heated, is held in the right hand; the tongue is grasped with and between the ring and little fingers of the left hand; the mirror is then placed in position and held between the thumb, index, and middle fingers (of the same hand), precisely as a cataract knife is held during operation.

As there is naturally little strength of grasp or unity of action between the ring and little fingers, some exercise and practice of these digits will be required so as to enable them to hold the tongue.

The ability to use the fingers in the manner indicated will of course give the operator the great advantage of having his right hand free for the use of instruments.

Michael C. O'Toole, M.D.,
Late Demonstrator of Laryngoscopy and Diseases of the Throat, Medical College of the Pacific.
San Francisco, Cal.

NOTE ON EPILEPSY.

To the Editor of The Medical Record.

Dear Sir:—In your last issue, Dr. Tanner, U.S.A., communicates notes of a case of epilepsy treated by means of a mixture of chloral and bromide of potassium. This plan is excellent, and has been put to a thorough trial in this city by Dr. A. McL. Hamilton, Dr. McBride, and myself. I now frequently employ such a mixture. Dr. Tanner will find all about this mode of treatment in various numbers of the *N. Y. Medical Journal* for 1878–9, under the title of "Proceedings of the New York Therapeutical Society."

Yours truly,
E. C. Seguin, M.D.

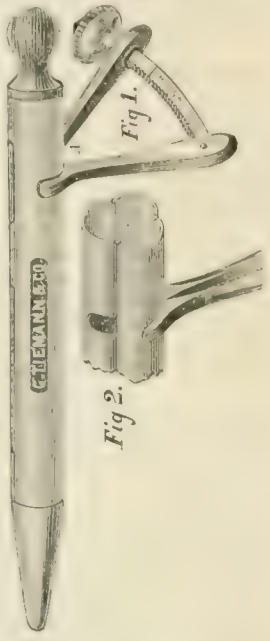
New York, Sept. 1, 1879.

New Instruments.

URETHRAL DILATOR AND SPECULUM.

By ALEX. W. STEIN, M.D.,
Surgeon to Charity Hospital, etc.

Dilatation of the female urethra is an operation justly esteemed of great service not only for purposes of diagnosis and exploration, but for the treatment of urethral and vesical diseases of the female. But I believe I can assert that the instruments we have hitherto employed for this purpose are not satisfactory, too often rude, faulty in construction, and dangerous. With this conviction I have had constructed a dilator perfectly simple of manipulation, effective and safe, and which I think will be found a decided improvement upon instruments of a similar nature. It consists (see Fig. 1) of a metal tube, three and a half inches in length, with an obturator, elastic and conical at the point which projects an additional inch beyond distal end, and which serves to facilitate the introduction of the instrument. One inch from proximal end (at *A*, Fig. 1) is a handle which supports a graduated bar and screw, by means of which the expansion of the instrument is effected. When closed it is thirty-three millimeters in circumference, and is capable of expansion to fifty millimetres. Fig. 2 represents a section of the instrument in a state of complete expansion.



The value of this instrument can only be appreciated when put to the test. Nevertheless, I trust its utility will be sufficiently apparent from description to invite for it a trial. It will be seen that the expansive force of the instrument is exerted equally and simultaneously on all parts of the circumference of the urethra, and not upon two or three points or sides of the canal, as with the instruments usually employed in urethral dilatation. Furthermore, the dilatation can be effected very gradually and with great precision, the degree of expansion of the instrument being determined with the greatest accuracy, even to a millimetre. The canal is stretched one or more millimetres at a time, according to the amount of resistance felt, allowing sufficient interval of time to elapse for the tissues to relax. In this manner we conform to the conditions by which alone a maximum degree of dilatation without laceration can be attained. Indeed, the tearing or rupturing of the urethra, which, with the ordinary instruments employed, is the almost inevitable result when thorough dilatation has been made, and the troubles of incontinence of urine, etc., which such an injury often entails, are entirely avoided. Owing to the peculiar conformation of the instrument it creates very little pain even when dilated to its utmost.

A most satisfactory view of the urethra and bladder can be obtained either by means of the endoscope which can be attached to the speculum, or by means of the ordinary reflecting mirror.

Tiemann & Co., from whom the urethral dilator and speculum can be obtained, will adapt the same principle of mechanism to other dilating instruments.

Change of Name.—The name "Louisville Medical News" has been changed, and the first number of the next volume of the journal will appear with the name "The Medical Age." We hope this racy journal may be successful under its new flag, but there is nothing that so comes home as the old flag under which we were born. If the worthy editors can protect their names from *orthographical* mutilations, we see no reason why their prosperity will not be heightened. In the event of such a calamity, we must beg leave to place them under the watchful care of the editor of the *Michigan Medical News*.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 6, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 30, 1879.	0	16	34	2	16	23	2	0
Sept. 6, 1879.	3	16	35	0	14	14	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis, from Sept. 3d to Sept. 9th, inclusive, was 153, and the number of deaths that occurred was 62. The total number of cases for this year to Sept. 10th is 1095, and the total number of deaths, 332.

DR. CLEMENT A. FINLEY, Ex-Surgeon General of the United States Army, died at his residence in Philadelphia, Monday, Sept. 8th, in the eighty-second year of his age.

THE FOOCHOW OPIUM ASYLUM.—In the eighth report (1879) of the Foochow Medical Missionary Hospital can be found the first report of "the Opium Asylum," under the care of Dauphin W. Osgood, M.D.

The following are the most important and interesting portions of the report:

"Since the publication of the last Hospital Report, the Opium Asylum has been conducted as a separate establishment, and has been self-supporting. The number of patients treated has been five hundred and forty-four; of these, twenty-four absconded and the remainder were cured.

The plan of treatment consists in the total discontinuance of opium in any form from the time of entering the asylum, and in administering chloral hydrate and potassium bromide for the first three or four days as required. A pill consisting of extract of belladonna, gentian, valerian, quinine, and ginger, is given morning and evening. In addition to the above, various complications have to be met as they occur, such as diarrhœa and vomiting. In some cases stimulants are required, and in all, good food that is easily digested should be taken every three or four hours in small quantities.

In all, over 1,100 cases have been treated. As a majority of these cases have come under my personal supervision day after day, I hope that I shall not be accused of egotism or cant when I write that in my opinion the use of opium is an unmitigated curse. It is equally true that rich and poor alike suffer from the continued use of the drug. It causes anorexia, indigestion, constipation, a general loss of vitality, anæmia, and in many cases difficulty in breathing. The confirmed smoker usually becomes impotent. His sallow skin, emaciated form, and languid step, tell the story. I am free to admit that there are cases where opium is used constantly for twenty or even thirty years in small quantities, with comparatively little injury to the user, but these cases are the exception and not the rule. It is also true that a given amount of opium smoked is less injurious than when swallowed. *I have never yet heard a heathen Chinaman defend the use or sale of opium, but on the contrary they universally condemn them.* The only apologists for the use of opium have been representatives of Christian lands, many of which have had but little practical knowledge of the evil resulting from the use of opium. We append a table giving statistics of 1,000 opium patients, showing their occupation and the amount used, etc.

Farmers, 273; Literati, 83; Officials, 5; Shop-keepers, 304; Mechanics, 43; Buddhist priests, 2; Tauist priests, 3; Soldiers, 17; Carpenters, 23; Bamboo-workers, 16; Tailors, 22; Attendants in opium shops, 8; Brokers, 6; Doctors, 5; Miscellaneous, 190.

Number treated under twenty years of age	5
From twenty to thirty years of age	203
" thirty to forty " "	454
" forty to fifty " "	261
" fifty to sixty " "	68
" sixty to seventy " "	9
The number using from one candareen to one mace	51
From one mace to a mace and one-half	89
" one and one-half to two mace	187
" two to three mace	317
" three to four "	195
" four to five "	77
" five to six "	36
" six to seven "	16
" seven to eight "	5
" eight to nine "	8
One ounce	3

Fifteen eat opium instead of smoking it. The amount used ranged from five candareens to three mace of the prepared opium.

As some of our readers are not familiar with Chinese weights, we may say the ounce is divided into ten mace, and the mace is again divided into ten candareens. The ounce is equal to 38 grammes.

The above-mentioned quantities are of the extract of opium; each ounce of the extract is said to represent one and a half ounces of the crude opium.

Number who had used opium less than five years.	232
" " " from five to ten	311
" " " ten to fifteen	251
" " " fifteen to twenty	94
" " " twenty years & more.	103
" " " thirty years	7
" " " thirty-five years	1
" " " forty years	1

Among the patients there was a Buddhist priest who smoked an ounce of opium daily. He remained about ten days, and at the time of his discharge said that he had no desire for opium.

Another case of interest was that of a military officer, a native of Hunan. He had used opium for more than twenty years, and at the time of entering the asylum was unable to attend to his duties. He had anorexia and constipation, was emaciated, and the slightest exertion caused difficulty in breathing. He had a severe time getting cured. For several days was unable to sit up in bed, but finally got over his desire for opium, and his general health was improving when he left. Before he left Foochow he presented a nice tablet to the Hospital, abounding in eulogistic sentiments.

THE RHODE ISLAND MEDICAL SOCIETY holds its quarterly meeting in Providence, Wednesday, Sept. 17th, beginning at 10 A.M. W. E. Anthony, Secretary.

THE NEW HAMPSHIRE MEDICAL SOCIETY holds its semi-annual meeting in the city of Hanover, Sept. 17th and 18th, 1879. G. P. Conn, of Concord, Secretary.

Original Lectures.

FIBROID TUMORS OF THE WOMB.

A Clinical Lecture Delivered at the Hospital of the University of Pennsylvania,

By WILLIAM GOODELL, A.M., M.D.,

Professor of Clinical and Didactic Gynæcology in the Medical Department.

Reported for the Medical Record.

By the word polypus we mean a stalked tumor growing from the inside of the womb. A fibroid tumor is a tumor without a stalk, having its origin either on the surface or in the substance of the womb. A fibroid tumor growing on the peritoneal surface of the womb may have a pedicle, but in that case it would not be called a polypus. When a pedunculated tumor projects from the cavity of the womb, as is often the case, it is known as a polypus.

Case I.—This patient that I shall bring before you is sterile. She has been married for a number of years. Soon after her marriage a very curious circumstance occurred. She fancied that she was in the family way, and, the hour of supposed confinement drawing nigh, a physician was summoned, but no child was born. The disappointment preyed considerably on her mind. We all know how great is the pride of maternity. Soon after she came to the Retreat, of which I have charge, for a child, and adopted one. I afterwards learned that she again went regularly to bed, sent for a female physician, who was in the secret, and was ostensibly delivered of this adopted child. This was done to save her wounded pride, for her relatives thought she would otherwise become insane. Unfortunately the child did not live long.

Last week the woman came to see me at the Retreat, saying that she had been flooding a great deal of late, and was rapidly growing fat. Why was she getting fat? The blood-corpuscles, as we know, are the oxygen-carriers, or consumers of the surplus fat of the body, and it stands to reason that, when their number is decreased by hemorrhage, the fat will accumulate. This fat is, of course, of a very low grade.

As the patient had not been in the hands of any physician, and as the existence of some foreign growth in the womb was suspected, I prepared the way for an examination by the introduction of some sponge-tents. These I removed in twenty-four hours, and filled their places by six new ones. The cervix is to-day sufficiently enlarged for me to introduce my finger with ease, and what do I find? The cavity of the womb is pretty well filled up by a large tumor. I succeed in grasping it with this instrument, and am bringing it out piecemeal. The growth cannot be a simple fibroid tumor; for it breaks down so readily under the traction that I fear microscopical examination may prove it to be a sarcoma.

Growths of this nature are very likely to lead physicians to false conclusions. The sound is introduced by the medical adviser, and, impinging upon the tumor, prevents him from obtaining the actual length of the womb, and he thinks no growth is there.

As I said a moment or so ago, I am very much afraid that this growth will prove to be a round-celled sarcoma. It breaks down entirely too easily for a simple fibroid, and there is no evidence of necrosis. A round-celled sarcoma is a tumor, without a capsule, feeling like placental tissue. It is a very rare growth as originating in the womb. This is only the fourth case of the kind that has come under my observation.

I will now curette the wall of the womb, and see if some more fragments will not come away. Crumbling tumors are always dangerous. The round-celled sarcoma, in particular, is very malignant, almost always returning, and, in the end, destroying life. The sarcoma is not, however, so rapid in its course as the carcinoma. In this case there is no pedicle, the growth coming from a large uterine surface.

Once upon a time, many years ago, I was decoyed into a bad error of diagnosis. The case happened to be my first one. I was called to see a woman with a uterine tumor, which had been twice removed, but had as often returned. From this history I inferred that this return of the growth was owing to the fact that the tumor had not been entirely removed upon the previous occasions. I made a digital examination, and found some projecting body, which I made up my mind was a polypus. Upon endeavoring to remove it, this growth broke down so much that I had to use a curette. Subsequent events showed me that what seemed to be the polypus was a sarcoma, and that what I had imagined was the pedicle was tissue constringed by the os.

But to return to the present case. I feel a small remnant of the growth on the posterior wall of the womb. This I will not remove to-day. It is apparently, upon more careful examination, a second small fibroid about the size of a hickory-nut. All the other vestiges I have succeeded in scraping away. This small fibroid which is left is so slightly projecting that there is no chance of removing it.

I will have the fragments which have been scraped away carefully examined. If it turns out to be a round-celled sarcoma it is sure to return. I say that this diseased growth always returns, and yet I have met with an apparent exception. Three years ago I was called by a friend to see a patient of his—a woman—the wife of a truck-farmer near Philadelphia, who, at the age of sixty-five, had begun again, as she thought, to see her courses. We made an examination, and found what we supposed to be a round-celled sarcoma, and removed it, but gave a bad prognosis. Strange to say, there has been no return of the growth and no subsequent hemorrhage. We took away some of the pieces, but lost them, and so have never since been able to substantiate our conclusion. We may have both been in error.

I am injecting this woman's womb with iodine. You can all see, I think, this eversion of the lining membrane of the cervix—the so-called "arbor vitæ."

These tumors, as they present themselves to the practitioner, may be generally divided into three classes, viz.: (1) those which, being extruded, occupy the vagina; (2) those lying partly in the vagina and partly in the womb, and which are not hard to remove; (3) those which, being intra-uterine, are difficult to remove.

If this proves to be a round-celled sarcoma I shall next week proceed to cauterize the womb where it is diseased, with pure nitric acid.

Case II.—Here the growth is partly in the vagina and in the womb. It is very large. The woman is unmarried. Four years ago she began to lose a great deal of blood at her monthlies. This flooding was attended with a great deal of pain, which has been growing steadily from bad to worse, until she is now greatly reduced in health. You remember that I brought her before you last week, introduced my finger, and found the vagina filled with a large tumor. This tumor may possibly be an

inverted womb, but I think that I have made such a careful examination as to preclude such a possibility. The tumor is so large that I may be obliged to use as much force in delivering it as I would in bringing down the head of a child. In view of such an emergency, I have brought with me a crotchet and a cephalotribe. The rule which I follow in the case of all tumors of the womb is to get them away by hook or by crook, to get them away as a whole or in pieces. In some cases I have been obliged to take them away piecemeal, bringing down and cutting away as much as possible at each time.

I remember a case that occurred to me some twenty years ago, in which two weeks were consumed in the removal of a growth of similar character. We had no such thing as an écraseur at that time, so that we were obliged to do all our work with the long-handled scissors. The first day we cut off all that we could, fully expecting copious bleeding. Fortunately there was but little. (Velpeau holds that hemorrhage is rare in such cases.) On the fifth visit we were able to reach the pedicle and remove it. If we had had an écraseur we might have done the whole thing at one visit.

I bring down the tumor to the vulva, and enable you to see that it is very large. So large is it that I find it impossible by any means to reach the cavity of the womb. The tumor is very offensive. The womb runs up nearly to the level of the umbilicus. I shall probably have to incise the perineum in order to get the whole tumor away. The first thing to be done is to clean out the vagina with carbolic acid. This syringing gives vent to a very offensive discharge which has been all the while imprisoned in the vagina. The tumor has acted just like the head of the child preventing the escape of the waters. I am going to deodorize this putrid discharge, as well on the woman's account as on my own. Having done this, I first try to pass a sound. I am certain that the tumor is as large as a child's head at full term. By means of this volsella I am going to try to pull the tumor down and cut it off near its base; but this I find to be impossible: the volsella won't do. I then take the obstetrical crotchet provided with a hook, and see if I can budge it; but still it resists. I must cut the perineum, as I think that it is the perineum which stands in my way. I do this cautiously, as I wish to be very careful not to tear the rectum. I am going to make a lateral incision, or rather lateral incisions—one on the right, and one on the left. I may, after all, be forced to make a slight backward incision.

I ask my assistant now to push on the womb above while I try to bring down the tumor with the guarded crotchet. I find this instrument is slipping, so I hold on to what I have already brought down with the volsella, while I pass the crotchet higher up and get another hold. I am following the proper obstetrical rule, you see, in delivering in the plane of the superior and inferior straits. I support the perineum meanwhile by hooking my finger in the rectum. I now take a second volsella, and make traction by catching the tumor below. This brings us to the pedicle, and, before proceeding to enucleate, I wish to see if the womb is inverted. I have got to be very careful here too, for this is the dangerous part of the operation; for if the womb is at all inverted, it is very difficult often to decide which is the tumor and which the womb. This is no easy question to decide. At any rate, I think this is the line of demarcation between the two, and here I shall begin the process of enucleation. This is undoubtedly the tumor proper: I am going to enucleate it with my finger, so that I may not get into the cavity of the peritoneum. After all, you see that the tumor has no pedicle at all. I am digging the base of the tumor out of the wall of the womb, which I have inverted, and which my assistant, Dr. Taylor, is keeping inverted for me. There is always less bleeding if one is able to do this. You can see here the bands of adhesion running into the tumor which have fed and supplied it.

I am gradually getting it all away—yes, here it all is in my hand. It is unusually large. I should say that it was originally a fibroid starting in the wall, near the mucous membrane, and that it was gradually pushed out of the wall of the womb and into its cavity, thus gradually enucleating itself. Here is its capsule, and see how readily we can remove the growth proper by incising its capsule. If there is persistent bleeding, I will apply one part of Monsel's solution to three of water to the cavity of the womb by means of a sponge; but I do not like to put foreign bodies in the womb after such an operation. I am afraid that gangrene and necrosis would follow if I used the full strength of Monsel.

I will now proceed to put in my stitches. These are more than necessary on the lateral surface. The tear on the posterior surface is only through the skin and fourchette. The womb has been entirely reinverted. The posterior tear is the same one which we meet with in almost every first labor.

I am very anxious to see this case recover without any infection or any hemorrhage.

Why are we able to deliver the tumor in such a case? Simply because we are able to invert the womb and remove the growth by enucleation. If I could not enucleate by means of my fingers, I should use a serrated spoon, or cut a groove round the base with a pair of scissors.

Sometimes we experience great difficulty in delivering the tumor. In such instances, if I were unable to bring it down I should cut off all I could with the hot wire at each visit until I had finally brought it all away. As a general thing, if circumstances are favorable, it is best to do it all at one sitting, for a raw surface is constantly discharging, and there is constant danger of blood-poisoning.

If you find a tumor occupying the cavity of the womb and cannot bring it down, how are you to act? (1) Try to twist off the pedicle. The volsella forceps is of no use in this connection, (*a*) because its hooks project; (*b*) because it has to be opened so wide that it cannot be passed far up; and (*c*) because it tears away when you have succeeded in catching the growth. The best instrument for this purpose is the fenestrated polypus forceps. This can be slipped into the womb and the tumor caught at hap-hazard. You catch hold of the tumor just as the surgeon seizes the stone in the bladder. (2) If you cannot twist off the growth, then adopt the plan of Dr. Kidd, of Dublin, by which you can never fail to remove a tumor. This is it: Catch hold of the anterior lip of the cervix with the volsella, and hand it to your assistant to hold; then get, yourself, a good hold of the presenting end of the tumor with a pair of volsella or polypus forceps: all you want is a good hold. Transfer this also to an assistant. Now slip the wire of the écraseur over this last volsella until you get to the os. Just here let me show you a wrinkle. You would naturally say, pass the wire up first. But not so: push up the tip of the écraseur first, and then coax the wire after, your assistant keeping up traction all the while, till it has passed above the equator of the polypus; it will then slip up to the root.

(This tumor is very large, but not so large as one which I enucleated six weeks ago.)

There is always a good deal of danger of cutting off a portion of the womb in performing this operation. So, after you have got the wire well up, push up the end of the écraseur until it meets with such resistance that it can go no further. In that way you restore the cup-shaped depression of the womb, and can tighten the wire with impunity.

The German physicians are the ones who recommend the lateral incisions where there is danger of the perineum being torn. These incisions must be sewed up immediately after the operation, otherwise they take a long time in healing. Braun, of Vienna—who is attending accoucheur to the Joseph Hospital in that city, where 6,000 women are delivered in a year, and who has consequently attended more labors than any other living man—lays it down as a rule always to make incisions where forceps are employed. This, I think, is a mistake; I say, always take the forceps off when the perineum begins to bulge.

If this woman should fall into the hands of a physician and tell him that she is a virgin, he would not believe her, for he would find all the evidences of a pretty severe labor.

I am sorry I did not stop the bleeding in this case by the use of ice, instead of employing Monsel's solution, for I fear that it may prevent the incisions made in the perineum from healing by the first intention.

The after-treatment will consist in binding the woman's legs together at the knees and keeping her quiet. If any symptom of septicæmia should arise, we shall give full doses of quinia.

Original Communications.

REPORT OF TWO CASES OF EXCISION OF THE RECTUM, WITH REMARKS.

By A. VAN DERVEER, M.D.,

PROFESSOR PRINCIPLES AND PRACTICE OF SURGERY IN ALBANY MEDICAL COLLEGE; ATTENDING SURGEON AT ALBANY AND ST. PETER'S HOSPITALS, ETC.

(Abstract of paper read at the Semi-monthly Meeting, Albany County Medical Society.)

That excision of the rectum is not a very difficult operation has been shown by the success of several operators. Billroth is said to have performed it sixteen times, twelve of his cases making good recoveries.

Among the first to do the operation in this section was the late Dr. March, who operated upon a female patient in 1868. She made a good recovery, living for eighteen months, and then died from a rapid return of the cancerous disease.

Dr. John B. Roberts, of Philadelphia, has contributed a valuable paper on this subject.

Of ten cases reported as operated on in this country, four are known to have died. One died seven months after operation, of what was said to be consumption; one was living sixteen months after the excision; of one, the termination is not known, and three are cured.

In a report by Schmidt, of Leipsic, out of thirty-three cases, twenty are reported cured.

Case I.—*Removal of lower portion of rectum for villous form of carcinoma about the anus.*—Mrs. W——, aged forty, married, and the mother of four children. She has always been in fair health, and presents a good family record. In the spring of 1877, her youngest child being three years old and her menstruation regular, she noticed an irritation about the anus, which gave her great annoyance, and at times pain. Her bowels became more constipated than usual, and she had some distress in passing urine. By June 1st she noticed a growth about the opening of the bowel, which she at the time believed to be piles, and accordingly consulted a specialist in this city for the treatment of that disease. She was now suffering much pain and itching, and was frequently compelled to take anodynes in order to get rest at night. The movement of her bowels she very much dreaded, as it gave her increased pain and distress. There was a constant moisture about the anus and perineum. The discharge was offensive, being ichorous in character, and producing an eruption about the skin of the gluteal regions.

The treatment she received gave her but little relief, and on Sept. 20, 1877, I was consulted. She now presented a pale, anxious expression of countenance, was in constant pain, her bowels being at times in a condition of diarrhœa; again they were costive, giving her greater pain. There was a loss of appetite and flesh. Her urine was in a healthy state—very little leucorrhœa. The uterus and organs of the pelvis were all in a healthy condition. No induration or inflammation of the deep or superficial inguinal glands. About the anus was a warty-like growth, looking as much like a small sun-flower as anything to which I can compare it. It extended for an inch about the anus on each side, and somewhat farther back towards the coccyx than forward on the perineum. In places the growth was ulcerated, bleeding somewhat easily upon touching. It extended posteriorly about two inches up the rectum, its boundary being well defined. The examination, made without giving an anæsthetic, gave her much pain.

Her menstrual periods were normal, and, as she expected her monthly sickness in two or three days, an operation was advised to be done as soon as she was well over it. This was readily assented to by herself and husband, her words being: "I cannot live long in this condition." She was given quinine quite promptly, and her rectum washed out each day by an injection of tepid water. Two doses of castor oil were also given. Oct. 1st, her menstruation having ceased two days previously, assisted by Drs. Snow, Perry, and my medical student, Mr. Worden, I proceeded to do the operation of excision of the rectum. Ether was given by Dr. Perry, and the patient was placed in the position for lithotomy. With the scalpel I made an elliptical incision, beginning in front of the anus, and then around on each side backward to the coccyx. With serrated scissors I continued the dissection, keeping my finger well in the vagina to protect, as much as possible, the recto-vaginal septum. The bleeding vessels were controlled by the use of Wells's artery clamp, and the time occupied in completing the removal of the diseased mass was about fifteen minutes. Ligatures were applied to eight bleeding arteries.

On careful examination, it was found we had removed more than two inches of the rectum posteriorly and only about an inch in front—in fact, at the latter point, there was evidently a part of the external sphincter muscle left, but the disease was believed to be thoroughly removed. The rectum was now brought down, and by ten stitches attached to the cutaneous surface. After this the oozing of venous blood entirely ceased. Cloths dipped in a weak solution of carbolic acid were applied, and the patient placed in bed. The shock was somewhat marked, the operation having lasted nearly an hour. She rallied from

the effects of the ether quite rapidly. Her urine was drawn in the evening by catheter, and by the aid of ⅛ gr. morphine she passed a comfortable night. Temperature 6 P.M., 101; pulse, 108. The next day after the operation she expressed herself as feeling very comfortable, none of the old pain or irritation remaining. This patient made such an uninterrupted and successful recovery, that it is hardly necessary to give her daily record. Her temperature was never above 102, and that was for one day only. One point of interest in the case was, that all the stitches gave way between the third and fourth day. The ligatures were all away by the eighth day, the suppuration being quite free. The parts, however, were kept in good condition by frequent washing with carbolized water. No tendency to burrowing of pus. The quinine was continued for two weeks. On the tenth day, the bowels were moved by castor oil and injections, giving her considerable pain and causing some bleeding. The catheter was not used after the second day. At the end of the second week after the operation, the patient was put upon a mixture of liquor pernitrate of iron and Fowler's solution, and this was continued for eight months, when her color and general appearance were that of perfect health. Since the healing of the parts, she has had more or less trouble in getting her bowels to move. There has been very little tendency to diarrhœa, but the contraction about the anus is very decided, so that, in the three examinations I have since made, I could hardly introduce my little finger without giving pain to the patient.

At first, to relieve the constipation, I gave the patient Lady Webster dinner pills, and advised the daily use of the rectal bougie. The former, however, seemed to give griping pain, or, as she expressed it, "too urgent a desire for an evacuation," while the latter was too troublesome to use for any length of time. For the past six months she has succeeded nicely in moving her bowels by the use of an enema.

At the present time, May 1, 1879, she seems in excellent health, and is free from all pain or irritation about the parts. Microscopic examination of the growth at the time of its removal showed it to be a papilliform form of carcinoma.

CASE II.—*Epithelioma of rectum—Three inches removed.*—In Feb., 1878, my friend Dr. Roscoe, of Carlisle, N. Y., brought to my office Mr. Wm. Becker, to be examined in reference to the condition of his rectum. Mr. B. gave the following history: He was a farmer, aged 58, married, and has three children, all grown and in good health. About nine years ago he first noticed his trouble, which he believed to be piles. He was treated by external applications, at times being worse, and then better, until three years since, when he had an abscess, which discharged quite freely. From that time the itching, irritation, and moisture of the parts have increased, being accompanied by sharp, lancinating pains; also at times by violent burning pains, which the patient very vividly describes. At times he would be troubled by diarrhœa; his pain, however seemed greater when the bowels were constipated. He frequently experienced also a sensation, caused apparently by the presence of something in the lower bowel, and which he felt he must force out.

On examining the parts, I found, just within the muco-cutaneous border, an ulcerated mass extending up on the right side as far as my finger could reach. The glands in the inguinal region, however, as well as the bladder and prostate, seemed in a healthy condition. He presented a somewhat cachectic appearance, loss of appetite, emaciation, etc. I advised an operation for the removal of the lower portion of the bowel, to which he readily consented. Accordingly, at his home, March 8, 1878, assisted by Drs. Roscoe, Perry, and Lowell, I did about the same operation as in Case I.

Having the catheter in the bladder, I made a complete dissection and removal of the rectum, to the extent of three inches on the right side and about two on the left. I did not, however, as in the preceding case, attempt to stitch the bowel to the skin; but, after securing the vessels, which were quite numerous, I placed a drainage-tube in the wound, applied a pad of absorbent cotton, and held all in place by a T-bandage. The cotton was removed on the second day, after which the wound was kept clean by the use of carbolized water. He made a good recovery, the ligatures being allowed to come away of themselves. Since last May he has had very good control of his bowels, though when the desire comes to go to stool he must respond at once, or there will be a partially involuntary escape of fæces. He has improved very much in health, and is free from all pain and irritation.

March 3, 1879.—Dr. Roscoe visited my office, and stated that, during the previous month, Mr. B. had noticed an enlargement in his left groin, which was hard and somewhat painful, but free from adhesions. This looks like a return of the disease, though in every other respect he seems well.

This patient took, for a long time after the operation, the mixture of pernitrate of iron and Fowler's solution, with seemingly good effect.

May 1, 1879. Mr. B. seems in excellent health, and is worried only by the indurated superficial inguinal gland in the left groin. About the rectum the parts present a healthy appearance.

I have reported these two cases, the only ones in which I have operated, not so much on account of their success, as the desire I have to add to the statistics of the operation, believing that time will demonstrate that it lies in the power of surgery to do more for these unfortunate patients than has hitherto been thought possible by many good and wise surgeons.

At the present time, while there are many favorable cases reported, yet the operation is considered as a palliative one merely. The period of immunity after operation cannot be determined. The conditions which seem to justify the operation, and which are emphasized in many of our late works on surgery, were well exhibited in my two cases—namely, the disease being epithelial in its character, limited to the walls of the intestines, not implicating the peritoneum, and the health of the patient not too seriously impaired. The fact that the greatest amount of the disease was situated toward the coccyx, made these two cases exceptionally favorable for the operation. I desire to call attention to the excellent use that can be made of the curved serrated scissors in doing this operation. It seems to me the immediate bleeding is not near so great, and that a good deal of the usual sponging is avoided.

I think there is much yet to be considered regarding the use of sutures. The principal causes of death in this operation have been pyæmia, pelvic cellulitis, and peritonitis. With this knowledge in our possession, is it not safe to do away entirely with sutures, give free exit to the wound by the aid of drainage-tube and frequent washing out, keeping the parts in an antiseptic condition, and avoid the possible danger there is in the sutures, closing the parts in such a

manner as to cause the pus to be retained, and thus most certainly produce some of the results that are known to prove fatal? I should like a fair, candid expression from the surgeons who have done this operation, as to how much service the sutures have been in holding the rectum down to the cutaneous surface, and whether if, in the majority of cases, they have not torn out before primary union could possibly occur.

DIPHTHERIA.

BY JOHN H. GILMAN, M.D.,

OF LOWELL, MASS.

(Read before the Massachusetts Medical Society.)

GENTLEMEN OF THE MASSACHUSETTS MEDICAL SOCIETY:—In responding to the invitation of your committee to read a paper at this meeting, I have ventured to select diphtheria as my subject, because the disease has lately prevailed in an epidemic form in Lowell and its vicinity. In writing upon diphtheria I do not expect to be able to offer much that is new or original, but shall, at first, give a general account of the disease, then make some observations regarding its nature, and lastly, give what experience has suggested respecting its treatment.

Dr. Aitken, in his great work on the Science and Practice of Medicine (6th ed., 1872), defines diphtheria as "A specific disease with membranous exudation on a mucous surface, generally of the mouth, fauces, and air-passages, or occasionally on a wound. The disease is attended with great prostration of vital powers. In some cases a remarkable series of nervous phenomena are apt to supervene, characterized by progressive paralysis and sometimes by fatal syncope. The disease is contagious and apt to become epidemic."

Although the name diphtheria is a modern invention of Bretonneau, the disease which we now recognize by that appropriate designation has existed under different names for centuries, if not from all antiquity; and although the Greek and Roman writers have not described its features with sufficient distinctness, its epidemics have been clearly indicated by Spanish, Italian, French, German, Swedish, British and American authors from the end of the sixteenth century to the present time. The earliest account of an epidemic that was undoubtedly diphtheria, which I have been able to find, is one which broke out in Holland in 1517. (Guy on Public Health.) It is described as an infectious inflammation of the throat, which often caused death in twenty-four hours. Those who ultimately got well recovered slowly. The disease soon passed away, but it spread beyond the limits of Holland, and certainly to Basle in Switzerland, where in the space of eight months it killed 2,000 people. Here its symptoms appear to have been better described, for we learn that the "tongue and throat were white as if covered with a mould," and part of the treatment consisted in removing this "viscous white coating" before applying remedies. Dr. John Starr, in 1749, describes, under the name of morbus strangulatorius, a disease which he says "has reigned within a few years in several parts of Cornwall with great severity." In his description we recognize diphtheria. He speaks of a "white body seen on the palate and tonsils," and gives a woodcut of a membranous cast of the larynx, trachea, and primary bronchi, which was expectorated by one of his patients. He speaks of the formation of a white membrane on a blistered cutaneous surface. Dr. Huxham, in his dissertation on Malignant Ulcerous Sore Throat (3d ed., 1759), evidently confounds together the two diseases, scarlet-fever and diphtheria. We recognize diphtheria in his description of "ash-colored spots on the tonsils, uvula, palate and pharynx," and in the noisy breathing "resulting from extension of the disease to the windpipe." He speaks of the "discharge from the nostrils as being so acrid that it excoriated the lips and hands of the patients," showing the extension of the disease to the nasal cavity. In 1765 Dr. Home published his treatise on the Nature, Cause and Treatment of Croup. He was the first to describe a membrane lining the air-passages as the essential anatomical character of croup. A careful study of his cases shows that under the name of croup he included two different diseases—simple laryngitis and diphtheria. Dr. Samuel Bard, in 1771, published an admirable description of diphtheria under the title of Angina Suffocativa, or Sore Throat Distemper, as it appeared in New York. He speaks of a "membrane on the tonsils" as being frequently, but not invariably, present. He describes the formation of a membrane on the abraded skin; and he recognizes the infectiousness of the disease, but rather "from the breath of the infected person" than "from any prevailing disposition of the air." And this, he says, explains the fact that a whole family may suffer from the disease, while the next-door neighbors escape. He speaks of one family in which seven cases occurred, three of which were fatal. Cullen, in his First Lines of the Practice of Physic (4th ed., 1784), under the head of Cynanche Maligna evidently includes scarlatina anginosa, and diphtheria. The latter is indicated by the appearance of white or ash-colored spots on the fauces. Mr. Henry Rumsey, in Account of Croup as it appeared in the Town of Chesham in Buckinghamshire in 1793–94, says that "frequently large films of white substance were formed on the tonsils," and describes a film or membranous substance lining the windpipe. Dr. Cheyne, in his treatise on the Pathology of the Membrane of the Larynx and Bronchi, published in 1809, says: "I have seen children so affected that I at first imagined they were suffering from the second stage of croup, but upon examination I discovered 'sloughs on the tonsils and uvula.'" The cough, voice, and breathing were those of the second stage of croup. He doubts whether these were cases of "true croup," but it can scarcely be doubted now that they were cases of diphtheria. Dr. Wade, in a communication to the *British Medical Journal* in 1875, gives the following quotations from an old author, showing that the existence of symptoms which we now recognize as diphtheritic paralysis was noted. They are extracted from a book entitled: An Historical Dissertation on a Particular Species of Gangrenous Sore Throat, which reigned Last Year among the Young Children at Paris. Translated from the French of Dr. Chomel (printed at Paris in 1749) by N. Torriano, M.D., London, 1753. "Miss Blossac, aged six and a half years. . . . . The patient did not seem to be quite out of danger till the forty-fifth day of the disease, having always a pain in expressing herself, speaking through her nose by reason of the fallen palate. She was given, in order to lessen the disagreeable speaking through her nose, a little camphorated brandy, with equal parts of warm water to draw up her nose, for two months together, and she used the remedy with pleasure. Miss Bonac was taken ill of the disease and cured. . . . . I have since learned that this patient after the fortieth day of the disease spoke much through her nose, became squint-eyed and deformed, but that as she grew stronger she also regained day by day her natural

state." The writer says "the patients are a long time weak and languid." To Bretonneau, however, belongs the honor of having clearly elucidated the distinctive characteristics of the affection. In 1821, 1825 and 1826, the disease having broken out and prevailed as an epidemic at Tours in France, Bretonneau, with his pupils Velpeau and Trousseau, studied it carefully and found a remarkable uniformity in its symptoms and post-mortem appearances, and from the constant presence of a false membrane called it diphtheria.

The characteristic feature of diphtheria, as already stated, is the presence of a false membrane situated upon the fauces. At the outset of the disease there is redness of the fauces, with more or less swelling of one or both tonsils. The exudation usually first appears upon one of the tonsils; but the diphtheritic formation may begin in the nares, pharynx, or larynx, on the palatine arches, uvula, and the posterior surface of the soft palate. At first the false membrane is thin, but may become more or less thick and opaque; it is white or ash-colored, but may become dark, and when unusually thick it resembles parchment or chamois leather. Sometimes the exudation is thin and soft, and sometimes it is tough and elastic, and an eighth of an inch in thickness. Different cases differ in the extent of the exudation; one or both tonsils may alone be affected, and from this primary seat the false membrane may extend over the pharynx, soft palate, hard palate, palatine arches, and uvula; into the nares, larynx, trachea, bronchi, œsophagus, and even into the stomach. It may be uniformly diffused in these situations, but it is oftener in irregular patches. The diphtheritic growth generally penetrates beneath the epithelium of the mucous membrane into the submucous tissue, coming into close contact with the blood-vessels, and, if detached, a raw, bleeding surface is exposed, which is soon covered with a new layer of false membrane.

Sooner or later the false membrane is thrown off, but the exfoliation is not infrequently followed by a second, third, and even fourth formation of false membrane. Decomposition of the exudation often takes place rapidly, and hence arises the fetid effluvia exhaled from the mouth of the patient. The glands to which the lymphatics of the pharynx lead are found to be larger than natural, and such an enlargement of the glands is in just proportion to the extent and severity of the local disease within the throat. If the local disease is limited to one side, the glandular enlargement occurs on the same side, and in severe cases not only do the glands behind the angles of the jaw enlarge, but the connective tissue in which they are situated is often the seat of serous effusion, and even of the exudation of lymph, so that great swelling occurs, which sometimes results in suppuration. According to Dr. Niemeyer, the diphtheritic and croupous false membrane is composed of fibro-albuminous material, which rapidly coagulates when thrown out upon the free surface of a mucous membrane. By some authorities it is considered to be a peculiar exudation, which, forming a favorable nidus for fungi, is often the seat of cryptogamic growth. Others maintain that the fibrinous material is poured out only in consequence of the irritation set up by a parasitic formation ramifying between the epithelial layers of the mucous membrane. Microscopically it is seen that pus, granular corpuscles, oleo-protein granules and epithelium constitute the bulk of the softer forms of diphtheritic exudation, while fibrin mixed with corpuscles constitute the bulk of the tougher varieties. The microscope often reveals the presence of fungoid vegetation in the pellicle diphtheria, and some observers have asserted that a parasitic growth is always present in the false membrane of this disease.

The invasion of diphtheria is sometimes attended with symptoms so mild as scarcely to attract attention until the local disease has made considerable progress. No pain is felt in swallowing, no febrile excitement is present, and only a trifling soreness or roughness is experienced in the throat. Other cases begin with feelings of depression and general malaise, attended with chills, fever, headache, sore throat, stiffness of the neck, and more or less pain in deglutition, and sometimes an attack is ushered in by convulsions.

The *primary nasal form* commences like a cold in the head, or the snuffles, the patient is unable to respire through the nostrils; from which there takes place a serous, yellowish, flocculent or bloody discharge, often very fetid, and which produces more or less excoriation of the external nasal openings and of the upper lip. This form is apt to be overlooked until symptoms of exhaustion supervene, or of the extension of the disease to the fauces or larynx.

In the *primary laryngeal form* the disease begins with painful deglutition, attended with redness and swelling of the mucous membrane of the fauces and noisy respiration. The exudation may be often seen on the arches of the palate, being more abundant at the base of the arch, looking as if it had spread from the larynx. Croupal symptoms rapidly supervene, and death threatens from apnœa.

MEMBRANOUS CROUP IS DIPHTHERIA.

I believe membranous croup and diphtheria to be identical. On reviewing, lately, the prevailing opinions of the leading members of our profession, it appears they are daily more and more adopting the dogma of Bretonneau and Trousseau, that all membranous croup is dependent on the specific contagium of diphtheria. It is, then, unquestionable that in the vast majority, if not in all cases, a membranous exudation in the air-passages is the specific product of diphtheria. The absence of exudation on the fauces does not prove the croup to be non-diphtheritic; for the diphtheritic formation may begin in the larynx, or, what is more common, the membranous exudation, which first occurred on the fauces, may become detached therefrom while the disease is extending downward into the air-passages, so that on inspecting the throat no exudation is observed. It is admitted by the best authorities that the morbid anatomy of membranous croup is identical with that of diphtheria.

The sequelæ of diphtheria form an important part of its history. Anæmia and general debility are apt to persist for a considerable time. Feebleness of the action of the heart sometimes exists to such a degree as to lead to sudden death by syncope, which is due in some cases to a paralyzed condition of the heart, and, in others, to the deposition of fibrin in the heart or great vessels. Paralysis is a characteristic sequel, the muscles of the soft palate and pharynx are oftenest affected; the paralysis here precedes its occurrence elsewhere, and is denoted by the nasal sound of the voice, difficulty of swallowing, and the regurgitation of liquids through the nostrils. Paralysis of the limbs is gradually developed, and is preceded by tingling, numbness, and a sensation of coldness; but sometimes the sensibility of particular parts of the affected limbs is morbidly increased, so that the lightest touch causes great distress. Paralysis of the external recti muscles sometimes occurs, resulting in

converging squint. The senses of sight, taste, smell and hearing are sometimes affected. Concerning the pathology of diphtheritic paralysis there are several theories. Dr. Morrelli, in his essay on Diphtheritic Paralysis, as observed in Florence from 1861 to 1864, gives some dissections in which lesions were found in the spinal cord and nerves. He remarks that the changes found after death are inadequate to explain the various forms of diphtheritic paralysis, and leave it an open question whether the pathogenesis of this affection be not entirely due to the morbific causes of diphtheria, and whether the paralysis does not proceed from the periphery to the nervous centres. Other Italian and German physicians have described autopsies in which they have found a disseminated myelitis in the medulla and spinal cord. Two recent observers, M. Charcot and M. Vulpian, are of the opinion that diphtheritic paralysis is due to the peripheric rather than to changes in the nervous centres; that it is, in fact, an extending neuritis or inflammatory process propagated from the muscular surfaces and nerve extremities, which produce abolition of their functions. They have shown that the normal condition of the palatine nerve is altered; that the nerve tubules are devoid of myeline, and granulations are seen to exist in the neurilemma.

Diphtheria is classed among the zymotic diseases. It is a contagious disease, and is apt to become epidemic. Examples of persons becoming affected, after having been brought in close contact with the disease, are numerous. But it sometimes occurs sporadically, and shows no disposition to spread from the sick to the healthy. In what manner the specific contagium or poison of diphtheria is generated has not yet been solved; filth, sewer and cesspool gases, defective drainage, dampness arising from soil moisture, or rather a damp atmosphere charged with the fungi of decomposition, are said to give rise to the disease. A German author, Dr. Letzerich, says "that it is undoubtedly deduced that epidemic diphtheria is caused by a fungus whose spores can carry the disease to other individuals; that diphtheritic inflammation depends upon the local effects of cryptogamic productions, and that clinical experience shows that the false membrane may be prevented if the spores and sporules are destroyed by topical applications." Once originated from any cause or combination of causes, it may be communicated by the sick to the healthy.

I regard diphtheria in its incipient stage as a local disease, and the early constitutional symptoms that sometimes occur, as due to the irritation caused by the growth on the mucous membrane, and the ramification beneath its epithelium, of the diphtheritic formation, and I regard the subsequent infection of the system and constitutional disease as resulting from the absorption from the throat or other seat of the false membrane, of the poison, and of putrescent matters arising from the interstitial death of the mucous tissue invaded, and from the decomposition of the false membrane. *We cannot too forcibly impress upon the public that the severity and mortality of the disease can be controlled if it is brought early under treatment.* If this fact was generally known and heeded, we could regard the disease as one of the most trivial of throat affections, with here and there a grave exception. Diphtheria is often masked for a time by symptoms of other diseases, so that when diphtheria is prevalent it is expedient to look into the throat of the patient in all cases of illness, as occasionally, when there is not even ground for suspicion, the characteristic spot or film of false membrane can be observed. What is the first stage of diphtheria? That in which the germs of the disease have lodged on a surface which provides a favorable soil for their development. The locality which is chosen by the contagium particles of diphtheria is usually the throat, generally one of the tonsils, where they begin to multiply and spread over the adjoining mucous surface, like mould on a raspberry jam. The disease has not yet impregnated the constitution with its baneful influence; perchance the pulse is not quickened; the temperature is not raised, and the tongue is not furred. Now is the time when a speedy cure can be effected by local treatment, when a single topical application will often effectually destroy the parasitic growth, and the patient is rescued. Contrast this with the disease not seen until it has been some three or four days established, the poisonous matter from the film has been absorbed by the lymphatics, as indicated by the hardening and swelling of the neighboring glands, the false membrane has spread more or less over the fauces and into the nasal cavity, perhaps entering the larynx, when recovery can scarcely be looked for; the pulse rapid, the temperature exalted, nerve prostration extreme, the blood badly or hopelessly poisoned, and protracted illness or death imminent.

In the treatment of the first stage of diphtheria I formerly applied to the false membrane lunar caustic or a strong solution of the nitrate of silver; but lately I have used, as a local application, the following preparation: ℞.—Acidi carbolici, 15 drops; tinct. ferri chloridi, 4 drachms; aquæ, 4 drachms. M. This solution, by its astringent and antiseptic properties, tans or hardens the fibres and coagulates the fluids of the false membrane, thereby arresting its growth and preventing the occurrence of putrefactive changes therein. It should be applied to the false membrane *once*, rarely twice, daily, with a small probang which has been moistened with water and pressed out just before being dipped in the solution. Some physicians experience considerable difficulty in making topical applications to the throat of children, but if they adopt the following procedure they will easily succeed: The mother, sitting, should take the child in her *right arm* and hold its hands; another person standing behind the child should hold its head, while the doctor should depress the tongue with a spatula or spoon-handle, held in his left hand, and with his right apply the probang, dipped in the solution, to the throat; after one application has been made the probang should be rinsed in water, cleaned of the attached mucus, dipped again in the solution, and reapplied; this repetition is necessary, so that the solution may come in direct contact with, and thoroughly permeate the false membrane. This operation should not be performed oftener than *once* or twice in the twenty-four hours, as strong local applications are apt to do harm when too frequently repeated. One application thoroughly made as directed, in the incipient stage of diphtheria, will oftentimes arrest the disease, causing the general symptoms to subside in a short time, and the false membrane to shrivel and disappear within twenty-four hours. While the local applications are being made the following prescription may be administered: ℞.— Potassii chloratis, 1½ drachms; aquæ, 4 ounces; acidi muriatici, 10 drops. M. Take a teaspoonful every hour during the day, and continue its use a few days after the false membrane has disappeared from the throat.

In the *next stage*, when the constitution has become impregnated with the diphtheritic poison, the false membrane will reappear if it is destroyed; so that local applications, though beneficial, cannot be relied upon to arrest the disease, which should now be chiefly

treated by the administration of tonics, antiseptics, stimulants, and a nourishing diet. An excellent prescription containing tonic and antiseptic qualities, and the one which I generally give, is the following: ℞.—Potassii chloratis, 1½ drachm; aquæ, 4 ounces; tinct. ferri chloridi, ½ to 1 drachm; quiniæ sulphatis, 2 to 5 grains. M. Take a teaspoonful every hour during the day, and continue its use one or two weeks after the local disease has disappeared. Water should not be taken for at least five minutes after each dose of the medicine, so that it may have time for local effect on the fauces. When there is much fetor exhaled from the fauces, the mouth may be occasionally rinsed, and the throat gargled or sprayed, with the liquor sodæ chlorinatæ, 5 to 20 drops to the ounce of water, or with aqua chlorinii, 5 to 15 drops to the ounce of water. Stimulants are required in this stage, the best being sherry wine diluted with an equal quantity of water, and the amount given should be in proportion to gravity of the disease and to the age of the patient. A liquid diet only should be allowed, consisting of milk, beef essence, beef tea, porridge, gruel, soup, etc., until convalescence begins, when a more substantial diet may be partaken of. In the nasal form, when the discharges are offensive, the nostrils should be carefully syringed out with potassii permanganas, 1 to 2 grains to the ounce of water; but if there be hemorrhage, the tinct. ferri chloridi, 5 to 10 drops to the ounce of water, may be used.

In the primary laryngeal form, or when the disease is entering, or has extended into the larynx, the following, vaporized by the steam atomizer, may be almost constantly inhaled for the purpose of effecting the solution of the false membrane: ℞.—Aquæ calcis, 4 ounces; acidi carbolici, 10 drops. M. Tracheotomy should be performed when other means have failed, and, according to Prof. George Buchanan of Glasgow, the operation yields as successful results in diphtheria as it does in membranous croup. In 1875 he published the whole number of his operations, which was 46: for croup, 16—cured, 6; died, 10; for diphtheria, 30—cured, 11; died, 19. The average result is precisely the same, viz.: one out of every two and two-thirds is saved.

In the paralysis resulting from diphtheria, no special treatment is required in most cases, but in the exceptional instances in which the paralysis persists a cure may be generally effected by the use of electricity, the subcutaneous injection, or the internal administration of strychnine, and an eligible formula is as follows: ℞.—Strychniæ sulphatis, 1 grain; aquæ, 1 ounce; tinct. ferri chloridi, ½ drachm; syrupi zingiberis, 3 ounces. M. Dose for adults, one teaspoonful; for children one to three years old, five to ten drops, thrice daily.

OPHTHALMIA NEONATORUM.

By WILLIAM OLIVER MOORE, M.D.,

ASSISTANT-SURGEON NEW YORK EYE AND EAR INFIRMARY, ETC.

This disease is one of the most terrible and destructive that can affect the eyes of the new-born. Fully one-half of the inmates in our blind asylums had this disease when only a few days old, and have suffered a lifetime in consequence. Scarce a day passes but we see presented at the various eye hospitals the sad picture of a helpless infant, frequently only ten days old, sometimes younger, in whom this disease has made sad havoc, one or both eyes being totally destroyed.

The question naturally arises, has science no means at her command to combat this disease? Most assuredly.

The disastrous results so frequently seen are not from lack of means, but from the lack of applying sure and safe remedies to the unfortunate patient.

It is a disgrace to the medical profession that so many children annually become blind from this disease, owing to utter ignorance of the first principles of medicine.

The dullest practitioner, if called to see a case in which a discharge of pus so profuse as that coming from ophthalmia neonatorum, would, if in any other part of the body, immediately institute means to allay and check it, and would not for a moment advise "breast-milk" as a lotion. Yet good general practitioners, when called to see this disease, sit quietly by, and with folded hands say, "It is quite common, and of no consequence," a matter of "only a few days;" meanwhile the eyes are being rapidly destroyed, and the innocent victim is to reap a lifetime of sorrow for the indifference of the family physician.

Of five hundred cases treated at the New York Eye and Ear Infirmary during the past ten years, only fifty were delivered by midwives; the others were under the charge of practitioners of medicine. Thus, in the majority of cases, the neglect can be traced to the physician in attendance.

The more astonishing is the fact, as this disease usually makes its appearance during the first ten days of life, when, as a rule, the accoucheur is daily visiting the mother.

Not until the mass of the profession realize the importance of energetic and thorough treatment, will we cease to see the awful results now so common.

We are required by the Board of Health to report scarlatina and the like, which can but produce, at the worst, death; while with this disease hundreds yearly are made to live a life of darkness from want of proper treatment—a burden not only to themselves, but also to the State.

We would almost urge the reporting of every case of ophthalmia neonatorum to the Sanitary Bureau, that it might be investigated and have proper treatment. This would be of service, as all physicians diagnose the disease, though they are so indifferent as to its treatment.

Some will probably think this visionary and wild; but those who visit our special institutions will see the truth of the matter. I would not be understood that the specialist is the only one fitted to treat such cases.

The most frequent cause is improper cleansing of the child's eyes and face immediately after delivery, or from using, in bathing the child, a soiled towel or sponge containing poisonous matter from the mother.

Great care should be exercised in having a trusty and tidy nurse. Exposure to strong sunlight, which is indulged in by too many, is another cause; as is also cold, causing a catarrhal inflammation in delicate infants, rapidly degenerating into a purulent form.

The disease generally makes its appearance during the first three days of life, when either one or both begin to show slight redness of the edges of the lids, and some injection of the ocular conjunctiva, together with undue moisture of the parts. The tissues of the lid being very lax in the infant, œdema of the lid soon manifests itself, especially in the upper, which has a red, and in many cases a purple hue. This swelling of the lids entirely shuts the eye from view. The discharge, which at first was only small in amount, and mucous, has by this time become very profuse and purulent. Frequently the purulent secretion

runs down over the cheeks, especially from the inner canthi. The edges of the lids become agglutinated, and, when forcibly separated, the pent-up purulent matter gushes out.

This confined material is a potent element in causing the destruction of the cornea, which so frequently happens where thorough washing is not practised.

The child, in crying, will often evert the upper lid, owing to the great swelling and to the contraction of the orbicular muscle. This point is a help in the treatment, as it greatly assists when making the application to the lid. The palpebral conjunctiva will be found intensely injected over its entire surface, and especially inflamed and swollen at the retro-tarsal fold.

On examining the cornea we find diffuse or circumscribed haziness, or, in the more severe cases, deep sloughs. This necrosis usually causes destruction of the entire thickness of the cornea, allowing thereby prolapse of the iris, in some even escape of the crystalline lens.

A case is on record where the mother brought in a wine-glass both lenses of her child to the physician.

Sometimes one-half, and at others the whole cornea is destroyed, according to the severity of the disease. The discharge and swelling will last for weeks when no active treatment is adopted, when at length the eyes are either sightless or very much impaired.

Such is the history of a case without treatment. The prognosis is favorable if the patient is seen within forty-eight hours of the attack, and, as a rule, no corneal complication will occur unless the child is extremely delicate and poorly nourished.

Prevention.—If the physician would attend more particularly to the first bath of the new-born, and not leave the entire charge to a nurse—perhaps an ignorant one—much trouble and suffering might be averted. All the bathing utensils should be perfectly free from any contamination of the mother. These seeming trifles well attended to will prevent many a case. The treatment may be divided into two parts; one to be carried out by the physician, the other by the nurse or attendant.

First.—The patient should be seen daily for the first two weeks. Remove all secretion from the edges of the lids by a moist cloth; separate the lids gently and examine carefully the cornea. If, in everting the lids, there is little or no bleeding from the conjunctiva, apply, after removing all adherent secretions by means of a camel's-hair pencil, a solution of argenti nitratis (gr. x. ad xx.—aq. ʒ j.) carefully to the upper and lower lid. Some neutralize the excess of silver by applying immediately a solution of chloride of sodium. This we think unnecessary, as the secretions of the eye usually neutralize any excess of silver. The lids should then be placed in their natural position. The cornea should be inspected at each visit, and, if hazy, a weak solution of atropia sulph. (gr. ss. —aq. ʒ j.), instilled. We prefer the ten-grain silver solution with the occasional use of the "mitigated stick" 1 : 2 (composed of nitrate of silver and potassa).

This treatment is kept up daily until the swelling of lids disappears, cornea clears up, and secretion ceases. The secretion being highly contagious, both the physician and nurse should be very careful and wash their hands after each application.

Second.—The treatment by the nurse or mother. This is really the most important, as the cardinal point is extreme cleanliness of the eyes. A few pieces of old linen, about two inches square and of only one thickness, should be placed upon a small block of ice, and, when cold, placed upon the closed lids of the patient. When these become warm they should be replaced by cold ones. This should be kept up as long as the child will tolerate it. One-half hour six times a day, until the discharge and swelling sensibly decrease, will be none too long at first.

The eyelids should be carefully separated every hour and cleansed of all secretions adhering to their edges, and the secretion in the conjunctival cul-de-sac washed out by means of a solution of alum (ʒ j.—aq. Oj.), by means of the ordinary medicine-dropper or pipette. In this way only can thorough cleansing be obtained. Chlorine water diluted may be also used with good result. We object to the use of solutions of lead, as frequently deposits of it have been found upon the cornea. Vaseline applied to the edges of the lids acts a good purpose, and should be used often during the day. This method, faithfully carried out by the mother or nurse, will add largely to the safety of the eyes.

The above treatment is, we believe, the one most commonly practised by ophthalmologists. Certain we are that a patient seen within forty-eight hours will have no impairment of vision if subjected to the above.

The prolapse of iris and other complications occurring in the cases not under treatment early, need special care, which we will not at present detail, as we hope to diminish largely such results by arousing the general practitioner to the importance of early and prompt treatment.

Care should be given to the general health of mother and child, as often the virulence of the disease is due to bad nutrition.

We hope these few remarks will be accepted in the spirit in which they are given, and that they will arouse attention to this destructive disease.

133 East Thirty-eighth Street, New York.

CLASS-ROOM LESSONS ON CHANCROID.

Given at the College of Physicians and Surgeons in the City of New York.

By FESSENDEN N. OTIS, M.D.,

Clinical Professor of Genito-Urinary Diseases.

(For The Medical Record.)

II.

THE TRUE NATURE OF CHANCROID—DIAGNOSIS OF APPARENT CHANCROID.

Gentlemen:—I will next direct your attention to the question of the *true nature of chancroid*, for it is essential that this should be appreciated before proceeding further in our study of the affection.

If it is a specific disease, that is to say, only capable of being set up through contact with the secretion of a previously existing chancroid, then acquirement of chancroid is proof indisputable of criminal venereal contact, either by the subject of it, or of the one from whom it was mediately or immediately contracted. It will at once be seen that this is a point which may become of great importance in its medico-legal relations. It will then be worth our while to pass in review some of the known facts bearing upon this matter.

First let us determine exactly what is understood by the term *chancroid*. We may accept the usual definition, namely, that sores promptly following venereal contact (from 24 hours to 8 or 10 days), possessing the destructive and contagious property are called

chancroid, and are claimed by certain authorities to be due in every instance to a specific virus.

Fournier says this in the most emphatic way, thus: "If all the patients in the world with chancroid would avoid contact with others until their malady got well, the disease would cease from off the earth." This is quoted in a recent work on syphilis, etc., by Drs. Van Buren and Keyes, and emphasized by a positive statement that chancroid arises only from chancroid. (Page 477.)

It is known and accepted that chancroids vary in activity, from those which are highly contagious and rapidly destructive, to those which are feebly destructive and are inoculated with difficulty. This is a well-known clinical fact, and has been repeatedly proven in the experiments with artificial inoculations by Boeck and others.* "A certain pus is employed '(chancroidal)' and re-inoculated until it will no longer produce a pustule; *then fresher pus from some younger chancroid*, until it also fails." †

If this decadence takes place in the artificial inoculation, it is not reasonable to suppose that the same result would be reached by repeated inoculations through venereal contact. Hence the chancroid by the continued re-inoculations of venereal contact would grow less and less virulent as communicated from person to person, until it finally died out.

Unless therefore new foci of contagion were created, *or new virulence added*, chancroid would long ago have "ceased from off the earth." We must then take one of these two positions in regard to it; either some added virulence must be accepted as arising from circumstances connected with the venereal contact (since it has been conclusively shown that by simple re-inoculation chancroid speedily loses its contagious and destructive properties), or that from circumstances connected with venereal contact new chancroids are originated. It is not necessary that we should be able to explain the exact combinations which increase the virulence of a declining chancroid, or which give rise to it *de novo*, in order to prove that certain possible conditions really do intensify and even originate chancroidal action or virus. If there is a difference between the behavior of the chancroidal virus when inoculated by means of a lancet, and when inoculated through venereal contact, that difference can only be referred to the circumstances attendant upon the venereal act. How, then, do the circumstances differ in an artificial and in a venereal inoculation? In the first, we have the virus inserted free from local or general circulatory excitement. In the second, both are distinctly present. Under circumstances of equal cleanliness and equally free from undue tendency to purulence, the result might not be markedly different. But to the latter mode of inoculation, viz., that by venereal contact, we may have, in addition, various potent influences, such as increased irritation from irritant leucorrhœal menstrual and preputial secretions, filth, excessive venereal indulgence. Each one of these added conditions is well known to be capable of initiating local inflammation and of increasing inflammatory processes already instituted. It can even be shown that a combination of these conditions may originate a lesion which distinctly exhibits loss of tissue, and the secretion of which is capable of setting up a similar lesion on an opposing surface, therefore possessing the contagious property. If this can be proven, it seems to be clear that the difference between a lesion thus produced and the typical so called *specific* chancroid is simply one of degree, and it may be logically claimed that circumstances which have been shown capable of setting up such a lesion, and which are shown to add to the virulence of a declining typical chancroid, may under favoring conditions produce an actively destructive, promptly contagious lesion—that is to say, a typical chancroid.

Now, it is a well-recognized clinical fact that certain conditions predispose to purulence. A lowered state of health, free from any disease, was shown in Dr. Wigglesworth's case, not alone to favor simple suppuration, but to be capable of producing pus of a distinctly contagious character.*

Persons affected with syphilitic disease,* scrofula, scorbutus, chronic splenitis, etc., are also predisposed to purulence; this can also be said of the subjects of every species of dyscrasia. Local conditions may also increase the suppurative tendency. Redundant preputial tissues—producing undue heat, moisture, and friction, favor purulence; also, dependent position. Prof. Boeck's experiments in inoculations of chancroid showed that the higher upon the body inoculations were made, the less tendency to excessive suppuration and also to phagedena.

Again, it is a well-established fact that changes occasionally take place in purulent secretions, through which new qualities and powers are developed. Benign or "laudable" pus may thus acquire a highly irritant property, as shown in the following case:

Case I.—A gentleman was presented to me some time since complaining of an inflamed condition of the glans penis and prepuce, which inflammation, as he said, followed every connection with his wife. On examination, the preputial tissues were found to be redundant, and the mucous membrane of the glans, as well as of its preputial reflection, was intensely congested and bathed in a muco-purulent secretion: this condition appearing at once after connection, increased, the parts becoming moist and painful, and continuing more or less so for several days. The wife was said to be afflicted with a profuse purulent vaginal discharge. It was also stated by the patient that connection with his mistress was not followed by any such trouble.

Again in certain cases, instead of a diffused inflammation we may find more strictly localized inflammatory lesions from a similar cause, as will be shown in the following case:

Case II.—Mr. H—— consulted me about five years since on account of a pustular eruption on the preputial mucous membrane, near its attachment at the fossæ glandis. His first trouble had appeared about six months previously as a single pustule in the fossæ on the right side. This was shown to a surgeon, who, notwithstanding the patient's assurance that he had no connection except with his wife, promptly pronounced it a chancroid and cauterized it with nitric acid. Within a day or two several small vesicles appeared in the vicinity, when the surgeon came to the conclusion that the primary lesion was of the same character, and that all were herpetic. The vesicles also became pustular and healed under a simple astringent dressing. There was a history of several subsequent similar attacks. In view of these facts the half-dozen lesions presenting on his first visit to me (previously alluded to), although distinctly ulcerative, with inflamed border, and varying in size from a small split pea to a grape-seed, were considered of herpetic origin. The correctness of this view was confirmed by their rapid healing under simple astrin-

* Bumstead on Venereal Diseases, p. 317 et seq

† Van Buren and Keyes, p. 479

* Lesson I., p. 6.

gent applications. A mild tannic-acid lotion was prescribed as a prophylactic, which, however, did not prevent recurrence of the trouble within a week. This yielded like the previous, and a lead lotion was used, with the apparent effect of preventing further trouble for nearly a month, when the patient went off on a fishing excursion. On his return, some ten days after, he presented not only pustules on the site of the previous ones, but several on the glans penis *exactly corresponding to the locality of pustules on the preputial mucous membrane when drawn forward on the glans*. In addition, there was a somewhat painful enlargement of the inguinal glands of the right side, attributed by the patient to taking cold after resting the butt of his brass rod for several hours in the groin of that side. The pustules healed somewhat tardily under repeated applications of nitrate of silver, but the glands went on to suppuration and the formation of deep sinuses. All healed, however, in a couple of months, when, three days after connection with his wife, another crop of pustules was discovered.

It was then suspected that the difficulty was the result of the connection; and upon a careful retrospect, the patient came to the conclusion that several, if not all of his previous attacks, had followed similar connection after about the same interval.

On inquiry, the wife was found to have been, for the previous six months, under treatment for an obstinate uterine catarrh by a distinguished gynecologist, who fully confirmed my opinion that contact with the acrid leucorrhœal discharge had occasioned the husband's trouble. Her final recovery and his subsequent immunity from the so-called herpetic trouble fully supported this conclusion. Both the gentleman and his wife were wholly free from suspicion of any illicit contact.

Another instance of ulcerative and contagious lesions from non-specific causes will be recognized in

Case III—Mr. S ——, aged twenty-seven, had been married about two years, when, after the birth of a second child, his wife suffered from a leucorrhœa which continued more or less troublesome for several months. In seeking my professional aid for himself, he stated that during this time he was subject to occasional attacks of herpes preputialis, and that whenever any abrasions occurred during connection, they were sure to be followed by points of ulceration, which only healed after several days' treatment by bathing and simple cerate. On examination, several sharply cut ulcers, from one to two lines in diameter, were seen on the preputial reflection and in the fossæ glandis. There were also two on the glans penis, more recent and smaller, which matched exactly upon similar lesions on the preputial reflection when the prepuce was drawn forward. The current attack was said not to differ essentially from those to which he was accustomed, except in that it was associated with enlargement of glands in both inguinal regions. One point especially, in the right groin, was inflamed, sensitive to touch, and fluctuating. This was opened, and discharged a small quantity of laudable pus. The ulcerations healed under the influence of cleanliness and simple applications; the patient necessarily keeping at his business as book-keeper in a large wholesale establishment; but the glandular abscess—the only one occurring—lasted for a full month before healing was complete. The patient's general health was fair. No scrofulous or syphilitic antecedents. The only apparent causes predisposing to ulcerative trouble was a very moist and redundant prepuce, which was subsequently removed. Since the circumcision, now four years, there has been no reported recurrence of the herpetic trouble.

Again, it would seem that ulcerations may occur under certain circumstances, as a result of contact with vitiated normal secretions, as shown in the following:

Case IV.—A gentleman who had been under my professional care for several years previous, and had no occasion to misrepresent his case, sent for me. He stated that he had a gonorrhœa acquired from an illicit connection with the wife of an intimate friend thirteen days previous. On the completion of the act, the lady discovered that she was menstruating, and so remarked, with many expressions of regret. Some four days after, a little soreness was felt in the urethra, near the orifice, and in a day or two more a whitish discharge appeared. He consulted a medical friend at his club, who, after hearing of the exposure, pronounced the trouble gonorrhœal, and treated him with capsules and an injection. After ten days of this, getting neither better nor worse of the discharge, a tenderness and swelling of the right inguinal gland occurred. Through his wife's solicitation, he sent for me. On examination I found a very scanty purulent discharge from the meatus urinarius, on opening which a sharply cut ulceration was seen just within the orifice, and about the size of a grain of rice; there was no urethral tenderness beyond this point. The gonorrhœal remedies were discontinued, and the lesion thoroughly cauterized with argent nit., solid. An inflamed bubo of the right inguinal region, size of a walnut, was also present; no fluctuations. This was painted with iodine. Suppuration occurred after several days, and the abscess was freely opened, discharging apparently healthy pus. Auto-inoculation of this pus failed to produce any result. The urethral ulcer resisted repeated cauterizations for about a fortnight, and then healed. At about this time the wife began to suffer from painful urination, and an examination revealed a superficial ulcer of mucous membrane, the size of a three-cent piece, just below and infringing upon the meatus urinarius, secreting pus freely. The husband acknowledged to an attempt at connection on an evening following the illicit intercourse, but stated that, with this exception, it was the only one, except with the friend's wife, that he had for a full month. In addition, the lady had a swollen and inflamed inguinal gland in the right groin. The lesion at the meatus urinarius was touched with pure carbolic acid, previously to which, however, the purulent secretion from it was inoculated on the thigh of the husband. The result of this inoculation was negative. Notwithstanding repeated applications of the carbolic acid, the ulceration in the wife progressed in depth and extent during the following ten days, until it invaded the urethral canal a full quarter of an inch; then an application of pure nitric acid was made. During this time several more unsuccessful inoculations were made upon the husband. Much urinary distress occurred, and notwithstanding the application of the nitric acid, the ulceration progressed along the urethra, which in the meantime was treated by suppositories of iodoform and cocoa butter. The lady was in delicate health, but without any constitutional dyscrasia. Tonics were administered, but the suffering increased and the ulceration was advancing into the deeper part of the urethra. During all this time the lady with whom the husband had the illicit intercourse had been calling almost daily on visits of courtesy and condolence, and both were free from any trouble. A distinguished surgeon, an

authority on genito-urinary diseases, was then called in consultation. To my great surprise he stated it as his opinion that the ulceration in the wife's case was non-specific, and only a coincidence; not at all the result of contamination from the husband, but from other accidental causes, and advised a continuation of application of the iodoform; if this failed to benefit, a change of air, a sea voyage. No improvement taking place in a week, the parties made a voyage to Havana, and, without other treatment, recovery practically took place within a fortnight.

Progress of Medical Science.

A New Test for the Presence of Biliary Coloring Matter in the Urine.—Nitric and hydrochloric acids, according to M. Masset, are not as delicate tests for the coloring matter of the bile as nitrate of potassium. The urine to be examined should be acidulated by two or three drops of concentrated sulphuric acid, and a small crystal of the nitrate dropped into it. The reaction is immediately established, a beautiful grass-green color being produced, if the quantity of the biliary coloring matter is large. On shaking the liquid the color becomes uniform, and of a deep tint; boiling does not change it, and it may be preserved for several days without alteration. The addition of water simply diminishes the intensity. If the biliary matters are present in but small quantity, the liquid takes in a very short time a pale green color, which also is persistent; it can easily be perceived by placing the tube between the eye and daylight, or in front of a white background. In these circumstances normal urine should present a light rose color. At the beginning of certain maladies, where the ordinary tests are useless, this reagent, it is thought, will be of service on account of the facility of its application and the distinctness, delicacy, and constancy of the reaction; further, it is not subject to the errors of observation, or the uncertain or erroneous interpretations attendant on the usual methods of examination.—*Journal de Médecine*, May, 1879.

On the so-called Myositis Ossificans Progressiva.—After giving an exhaustive anatomical description of two cases that were examined post-mortem in Heidelberg, Dr. Mays states it as his opinion that we have to deal in this affection not with a true myopathy, but with a process which starts in the connective substances—in the bones, tendons, and fasciæ, as well as in the connective tissue lying around and within the muscles. In the bony system the affection manifests itself by hyperostosis and exostosis, and by the development of synostoses (in the vertebral arches). Of the ossifications in the soft parts—which are demonstrated by the microscope to consist of actual bony tissue—many are directly connected with the skeleton, and this may then safely be assumed as the original point of departure of the process; while others are entirely isolated from the bony framework of the body, and evidently originated in the fasciæ or the loose connective tissue. The contiguous muscles merely lie on these osseous new-growths, from which they can be easily separated. The direction in which the new-growth extends does not at all coincide with that of the muscle fibres. Many connective-tissue structures undergo hyperplasia; the fasciæ are generally very strongly developed, and in some spots new tendinous bands and aponeuroses form. The pathological changes in the muscles themselves consist partly of simple atrophy and partly of fibrous and fatty degeneration. They may be regarded as secondary, and due to the altered conditions of nutrition and compression.—*Centralblatt für Chirurgie*, June 21, 1879.

Myxædema.—Under this name, M. Gull describes a disease characterized by a cretinoid state, occurring among adult women. It consists of a general enlargement of the whole body, especially marked in the face, which enlarges transversely, and becomes round. The skin becomes soft and delicate, and acquires a sort of transparency analogous to that of porcelain; the cheeks are rose-colored. The subcutaneous cellular tissue about the orbit becomes loosened; that of the back of the neck and of the throat, thick and folded. The distance between the eyes seems large, and the root of the nose depressed. The lips, large and thickened, are of a purplish red color; the alæ of the nose are hypertrophied. The face is modified in its shape, and assumes a bloated appearance, at the same time preserving a soft and rather agreeable look. The tongue becomes large and thick, the voice guttural, and pronunciation is impeded by the deformed tongue. The same changes appear in the hands, and they become infiltrated and massive. As the disease progresses the patient becomes listless, and capable of less and less exertion; the intelligence is dulled, and the habitual indifference is but rarely interrupted by periods of irritation. There is, properly speaking, no mental trouble. The trunk and inferior extremities become loaded with fat, giving the appearance of general œdema. Dr. Ord, who has observed similar cases, thinks that the disease is characterized by a gelatinous condition of the fibrillar elements of the connective tissue. Cases of this affection are extremely rare, and have been mostly reported from France under the general and vague name of polysarcia, or adipose polysarcia. M. Olive reports, among others, the case of a pensioner who became subject to a gradual solid swelling, which extended from the face to all the body, and which first made its appearance at the age of forty. The description of this case corresponds exactly with that given by Gull. Treatment does not appear to have been accompanied by much success.—*Journal de Médecine et de Chirurgie*, July, 1879.

Treatment of Diphtheria.—Prof. E. J. Bonsdorff, of Sweden, has had a very extended and successful experience in the treatment of diphtheria, and has used the following method for about twenty years:

In all cases, he has endeavored at the outset to determine the nature of the diphtheritic exudation and its seat. In more than a thousand cases of the disease which he has observed, he has found two different forms of exudation: (1) a superficial and evenly spread coating over one or both more or less swollen tonsils, and the arch or velum of the palate; (2) an exudation extending into the substance of the tonsils, on the surface of which are noticed more or less numerous white-gray spots, for the most part sharply demarcated, and of varying forms. The method of treatment consists in mechanically removing, by every means possible, the exudation and all mortified tissues which can be removed, and, when this has been done as thoroughly as possible, pencilling the surface with a strong solution of nitrate of silver. He dips a wet brush in powdered nitrate of silver, and then makes the application. This operation is to be repeated in severe cases twice a day, according as new masses of exuda-

tion are observed, and continued till no further exudation is perceived. The patient should be watched for several days, and should a relapse occur, the treatment must be repeated.—*Hygeia*, No. 4, 1879.

Rapid Cure for Singultus.—Dr. Grelletz states that a mother whose child occasionally had singultus, either from the immoderate or too rapid repletion of the stomach, or from some other cause, was in the habit of checking the symptom instantly by the administration of a lump of sugar saturated with vinegar. The doctor tried this remedy in a number of cases, and always found it promptly successful.—*Rev. Med. & Giorn. Veneto di Scienze Med.*, May, 1879.

The Oriental Pest.—Prof. Hedenius read a paper before the Upsala Medical Society in which the history of the several outbreaks of pest, from the earliest times to the present, as well as the views of prominent writers on the subject, are critically examined. The pest is an extremely acute infective disease with a severe, adynamic febrile character, which is characterized by multiple localizations, especially in the external lymphatic glands (buboes), and occasionally also by the development of anthrax or carbuncle. In consequence of its febrile character, or the very prominent status typhosus, together with the localizations in the lymph system, the almost constant tumefaction of the spleen, and an occasionally occurring roscola, the pest would appear to be a specific variety of typhus, distinguishable from other typhus partly by its acute course—six to eight days—partly by the early appearance of the buboes. In consequence of the not unfrequent occurrence of carbuncles, which are sometimes primary, sometimes secondary in relation to the general disease, the pest presents several analogies with malignant pustule, but is distinguished from the latter by the simultaneous buboes, which occur most frequently without carbuncles. From pyæmia and cadaveric poisoning, which it undeniably resembles in many points, it is distinguished by its epidemic occurrence, and from pernicious chills by a more longitudinal enlargement of the spleen and by its contagiousness.

Besides this so-called Oriental pest, there is the Indian pest, a specific variety of pest in a nosographical and epidemiological point of view. The latter disease is also a bubo pest, it is true, and therefore very similar to the Oriental variety, but is distinguishable from it by a peculiar, probably septic lung inflammation, which occurs at the very commencement of the disease, is combined with pulmonary hemorrhage, constitutes the most dangerous symptom of this disease, and causes death on the second, or, at latest, on the third day—often before the appearance of the buboes.

The period of incubation, which is naturally of great importance in connection with the subject of quarantine, is very frequently only two to five days, and hardly ever extends beyond seven days after the infection.

Taking into consideration the fact that each epidemic, since the renewed appearance of the pest in the Orient in 1867, is more extended than the one immediately preceding, and that the disease has at last extended over the boundaries of Europe, it would undeniably appear as though we were threatened in the early future with a new pest period, and that strict protective measures were very necessary.—*Upsala Lakare för Forhand*, No. 2, 1879.

Anatomical Proof of the Persistency of the Cervix in Pregnancy.—A long and excellent article on this subject was published by Dr. M. Sänger, of Leipsig, in the *Archiv für Gynäkologie*. After an elaborate historical criticism of the question, in the course of which he controverts with great ability the views of Bandl and Küstner on this subject, the author gives an account of the condition of the cervix uteri in the case of a patient who had died suddenly in a convulsive seizure about the end of the ninth month of utero-gestation. Cæsarean section was performed immediately after death by Professor Credé, and the state of the uterus, and especially of the cervix, was carefully determined by Dr. Sänger. It was found that the plicæ palmatæ of the mucous membrane of the cervix were perfectly intact, and that the membranes covered with the decidua ran closely down to the edge of the cervical mucous membrane. It was impossible to doubt where the cervix ended and where the lower uterine segment began. There was no intermediate space, as insisted upon by Bandl and Küstner, between what they call the inner os and ring of Müller. The anatomical evidence of the case, more especially when subjected to microscopical examination, in the most emphatic manner supports the view of the persistency of the cervix during the whole of pregnancy until near delivery, and contradicts flatly the view, that in any sense the cervix is used up in such a manner as to amplify the lower uterine segment. In Dr. Sänger's case there was no elevated ring at the junction of the cervix and lower segment of the body, as in a case recently published by Müller, but the cervix and body of the uterus ran directly the one into the other in the same plane. Dr. Sänger thinks that though anatomical evidence is the most reliable in deciding this question, careful clinical observations, taking care that the softened cervix is not shortened unnoticed during the exploration, is also of great value as corroborative evidence of the persistency of the cervix. The dimensions of the vaginal portion of the cervix in this case were as follows: Anterior wall, 1.5 centimetres = .6 inch; posterior wall, 2 centimetres = .8 inch; breadth of its base at the highest part of the vaginal end, 2.5 centimetres = 1.0 inch.—*Edinburgh Medical Journal*, August, 1879.

Removal of Loose Cartilages from the Knee-Joint by Direct Incision.—Mr. Annandale reports two cases in which he opened into the knee-joint, with antiseptic precautions, for the purpose of removing loose cartilages. The first case was that of a coachman, aged sixty-eight. On the 4th of March a free incision was made into the joint, on its inner aspect, and three loose cartilages removed. The wound was stitched up, no drainage-tube being used. Union by first intention was obtained, and throughout the progress of the case there was no swelling or inflammation of the joint nor constitutional disturbance. The patient left the hospital on the 5th of April, cured. He has been heard of since, and the result is in every way satisfactory. The operation on the second case was performed on Oct. 5th, the joint being entered from its outer aspect, and the cartilage removed. As in the other case, the wound was closed, and no drainage-tube inserted. The wound healed rapidly by first intention, and after four dressings with the carbolic spray was found to be skinned over. No pain or swelling in the joint followed the operation, and the patient was discharged cured on Nov. 2d. He returned afterwards, and reported that he was able to walk long distances, with no inconvenience and no perceptible limp. Mr. Annandale thinks that the excellent results obtained in both instances proves the safety of cutting into healthy joints, provided the Listerian antiseptics be carefully employed. —*The Lancet*, Aug. 2d, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 20, 1879.

THE MEDICINAL USE OF ALCOHOL.

PROFESSIONAL interest in the alcohol question has not diminished. At the recent meeting of the British Medical Association an interesting discussion was held on the use of alcohol in the treatment of disease, and a number of noteworthy papers were read. The discussion was restricted to its use chiefly in fever. The first paper was read by Dr. James Little, of Dublin, on the value of alcohol in sustaining the powers of life in acute and chronic disease. The position which he assumes is, that alcohol as a drug has great power, both for good and for harm; that we are in danger of losing sight of its injurious influence while seeking its good effect; and that, on the whole, the concensus of medical opinion regarding alcohol is much too favorable. Wine and brandy are his favorite preparations, and, going back to Stokes and Corrigan, he accepts, as a guide for their administration in fever, the rule which, we believe, is especially emphasized in this country, namely, weak pulse, or, as an old and skilful practitioner used to say, a "swinging pulse," and feebleness of the impulse of the first sound of the heart. It does not necessarily follow, when these conditions are present, that the ears and extremities of the patient are cold, or that pulmonary stagnation is present—further indications for which Dr. Little impliedly looks. Indeed, those are the conditions which, we believe, a wise administration of alcohol, wine, brandy, or whiskey is capable of preventing, and towards which its use should be especially directed. In other words, we believe it is safer to aid nature when she first signals that her powers are flagging, than to wait until she cries out for assistance. This, however, does not imply that the remedy is to be used indiscriminately; but, on the other hand, it presupposes that the medical attendant deals with his case cautiously, and with his ear hears the first plaintive supplication for aid.

The diseases in which Dr. Little believes alcohol is specially serviceable are catarrhal typhus and pneumonia. Dr. H. Macnaughton Jones, physician to the Cork Fever Hospital, gives his experience in the treatment of 899 cases (independent of private cases) of typhus, typhoid, and simple continued fever, and reaches the conclusion that, while a large percentage of cases do not require alcohol, it is a most valuable therapeutic agent in both typhus and typhoid fever. He, however, has but little faith in the early employment of alcoholics in fever, even in those patients who have been addicted to their use, and has rarely seen any good effect from them when they are used to "prevent" an adynamic condition. In 1875 he published, in the *Dublin Monthly Journal of Medical Sciences*, a table of 310 cases of fever; of these, 220 had no stimulants, 58 had claret alone, and 33 had brandy. Of this number 110 were typhus fever patients, of whom 26 received stimulants. The mortality in the typhus cases was eight per cent.; in all the other cases, 3¼ per cent. From 1875 to 1877, 30 per cent of the cases had stimulants at some period of the fever. From 1877 to 1879, 36.17 per cent. had stimulants; and in the typhus cases they were given in the greatest per cent. in the latter period of the disease, and the rate of mortality was about the same as noted above. The total percentage of cases of typhoid fever taking brandy was 20.56, with 36.36 as the rate of mortality; and the total percentage taking claret was 25.23, with a death-rate of 7.40. Of 117 cases of simple continued fever, 5.12 per cent. were given brandy and claret respectively, and no deaths occurred.

A feeble, irregularly acting heart, with weakened first sound, rapid compressible pulse, and absence of violent head symptoms, encourages him in their use and continuance. While he does not use alcohol to "prevent" the entrance of the wedge, he uses it to remove the wedge, or at least to arrest its riving effects, when its presence is indicated by the condition of the heart and the general condition of the patient to which allusion has just been made.

The discussion was continued by gentlemen who entertain extreme views on both sides of the question. Dr. Kerr, of London, believes the vital forces can be sustained by milk, unfermented wine, beef tea, and gruels while the fever runs its course, and rarely gives alcoholics. He fears the reactionary disturbance of alcohol, and claims that the circulatory system can be equally, promptly, and efficiently stimulated by means of injections of hot water, by the repeated injections of ether, by flying sinapisms and blisters, and by digitalis. We confess we are not quite able to understand what flying blisters and sinapisms can do towards sustaining the flagging forces of nature in an advanced case of typhus or typhoid fever, and prefer to submit ourselves to the care of an intelligent and discerning practitioner who aims to soothe and sustain rather than to irritate.

On the whole, however, there was a notable unanimity of opinion regarding the value of alcohol in the treatment of fever. As Dr. Andrew Clark, the President of the Section on Medicine, puts it, "it was apparently agreed that the patient in fever was like a ship in the storm; not much could be done for the storm, but a great deal could be done in steering the ship in the storm." The object is to support the life of the patient in passing through the perils of a fever; and when the patient's natural powers begin to fail, when his vital forces totter—danger becomes imminent and death threatens, there is perhaps no remedy more serviceable than alcohol. At the same time it should be given with a tentative hand, and, so long as certain evidences of disagreement do not arise, it may be continued, with the idea that we are aiding the patient in outliving the disease.

Besides this discussion, there is lying before us the Sixth Annual Report of the London Temperance Hospital—an institution for the treatment of all kinds of diseases without using alcohol in any way, even in the form of tinctures.

During the twelve months ending April 30, 1879, there were admitted to this hospital as in patients 140 persons. This number is altogether too small to enable us to make a fair comparison, regarding many important features, between these patients and a like number treated at an ordinary hospital; but we can legitimately avail ourselves of the opportunity to examine the cases which are reported as illustrations of the good results obtained by what is termed "treatment non-alcoholic."

"Case 633. G. R——, aged 40; non-abstainer; cabman, and married; suffered from jaundice," which went through "all its phases" in seventeen days without the use of alcohol in its treatment. Recovery, even without medicine, can be expected with a great deal of confidence in all such cases.

"Case 664. St. Vitus's dance.—J. C——, aged 8; life abstainer." The cause is put down as "fright." She remained in the hospital two months, and was discharged cured. It is an established fact that the tendency in this class of cases is towards recovery; and, besides, we have not yet seen it recorded that alcohol is a remedy ordinarily employed in its treatment.

"Case 610.—W. C——, aged 24; abstainer;" was admitted to the hospital, July 15th, with "pneumonia of the left lung," and discharged cured on August 8th. A legitimate termination of the case, independent of any medicinal treatment whatever.

"Case 682. Epithelioma of the lower lip. P. S——, aged 40; abstainer; gardener." The growth was removed by "making a very free sweep with the knife." "The treatment was non-alcoholic," and the patient was discharged cured at the end of twenty-four days. Nothing but unforeseen causes and meddlesome interference could prevent such a result, if the operation was well performed.

Several other cases are reported, and with one or two exceptions, with the facts as given in the report, there is no evidence in any of them to show that alcohol would have been administered by the most ardent advocates of its use in the treatment of disease. One case of cellulitis (679) of the right leg recovered, although "the strength was decreasing, owing to the exhausting nature of the discharge, pain, and want of sleep;" but we believe it should be placed to the debit rather than to the credit side of the plan of treatment. We also believe that the directors would have done well to have withheld all such records of the hospital from public inspection. Such reports belittle the temperance cause, bespatter the face of science, and beget in the minds of many an unwonted hostility to such enterprises. That alcohol, when properly used in the treatment of disease, is beneficial, we believe has been fully established.

THE SUDDEN DEAFNESS OF SYPHILIS.

Dr. Samuel Sexton, surgeon to the New York Ear Dispensary, in a paper published in *The American Journal of Medical Sciences* for July, 1879, draws attention to this rare manifestation of syphilitic disease, which he describes as occurring during the secondary period of the infection. Heretofore this lesion has been generally thought to have its seat in that portion of the ear occupied by the terminal filaments of the auditory nerve—viz., the inner ear; but Dr. Sexton believes that the difficulty lies mainly in the conductive apparatus of the middle ear, and that impressions of sound fail to reach the nerve on account of anomalies of the latter. He has found a confirmation of this conclusion in the fact that the patients could hear themselves talk or sing, frequently with correctness, while no ordinary sound of the voice penetrated the ear from without. He believes, furthermore, that the ear is not invaded by syphilis in these cases from the throat *per* the Eustachian tube, but that the attack is invited, as it were, in most instances, by pre-existing hyperæmia, or catarrhal inflammation of the middle ear arising from other causes.

These special invasions of syphilis are characterized by their *suddenness* and by their *severity*. Both ears are usually affected almost simultaneously, and the recorded cases seem to show that neither ear entirely escapes under any circumstances.

A rapid deposition of lymph probably takes place in these cases, causing instantaneous fixation of the ossicles. So rapid indeed is the invasion, that one patient went to bed with good hearing in one ear, and when he awoke in the morning his hearing was gone; the other ear had become deaf with even greater suddenness. The two attacks in this case were two years apart, and were both immediately preceded by a detonation compared to a pistol-shot, and extreme vertigo and vomiting. The doctor states that most dis-

tressing *tinnitus aurium* usually accompanies this disease from the outset.

The affection is not a suppurative one, none of Dr. Sexton's reported cases having that character; indeed, the visible lesions of the ear are in no way commensurate with the gravity of the disease. The inner end of the meatus is usually hyperæmic, and the epidermis exfoliates; the drum-membrane is thickened, ashy in hue, and of course lustreless; its plane is not always altered, and the Eustachian tubes are free. Dr. Sexton performed paracentesis of the membrana on some of these cases, but found no fluids in the tympanic cavity. The disease is not a painful one, as far as the ears are themselves concerned, although occasionally there was cerebral pain.

The treatment of these cases has not been attended with a restoration of hearing, but it has always occurred that the patients have failed to make timely application for relief to persons competent to recognize the importance of the aural disease. Treatment, to avail, must be most prompt, and should consist of the internal, together with the cutaneous, use of mercurials, in combination, perhaps, with the iodide of potassium.

Reviews and Notices of Books.

A Treatise on Hygiene and Public Health. Edited by Albert H. Buck, M.D., American Editor of Ziemssen's Cyclopædia of the Practice of Medicine, Aural Surgeon to the New York Eye and Ear Infirmary. Vols. I. and II. New York: William Wood & Co. 1879.

This work is in two large volumes, which contain 790 and 650 pages respectively. It consists of a series of articles written by men deservedly eminent in the medical profession, and with special reference to the private and public hygiene of different climates, conditions of soil, habitations, modes of life, and laws of the United States. It is intended not only for physicians and sanitarians, but for all educated classes.

The first volume has two parts. The first part is devoted to individual hygiene and the second to the hygiene of habitations.

The introduction includes prefatory remarks, causes of disease, and jurisprudence of hygiene, and was written by John S. Billings, M.D., Surgeon United States Army, and Vice-President of the National Board of Health. It is concise, and shows a masterly familiarity with the subject on which its author writes.

The first article in the first part of the first volume is on Infant Hygiene, and was written by A. Jacobi, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons in the City of New York. This article contains valuable and practical instruction regarding the general care of the new-born child. It tells us the care that should be taken with reference to respiration and circulation, the skin, bathing and temperature, infant feeding, selection of wet-nurse, proper milk for the child, animal and vegetable substitutes for milk, intestinal digestion, mode of giving food, care of the teeth, age of schooling, etc., all of which are topics of the greatest interest and importance to the child, the mother, and the physician.

The second article is on Food and Drink, and was written by James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. This article includes the classification of food and drink and their physiological uses, based upon chemical composition. The subject of special foods, their adulteration and inspection, forms the subject of another chapter, which appears in the second volume, and is from the pen of another writer. After giving a classification of food, he considers first that which is direct aliment; second, indirect aliment, and then passes to the study of accessory foods, the necessity of a mixed diet, the modifications in the proportions of different alimentary principles demanded by differences in temperature and climate, the effects of cooking, the proper daily amount of food, and certain conditions and diseases resulting from the use of defective, deficient, excessive, or diseased food. Dr. Tyson's article sustains the high reputation given to the treatise by the writers by whom he is preceded.

The third article is on Drinking-water and Public Water Supplies, and was written by Professor Wm. Ripley Nichols, of the Massachusetts Institute of Technology, Boston, Mass. This article is in itself a treatise on the quantity, the quality, the question of cost, the sources of supply, artificial improvement of natural water, effects of conduits and distribution pipes upon potable water, impure ice and sanitary examination of water. There is also a bibliography. It is illustrated, contains a vast amount of valuable and practical information, and is written in an easy, flowing style.

The fourth article is on Physical Exercise, and was written by A. Brayton Ball, M.D., of New York City. This article, although presented in a most admirable manner, lacks the practical interest which characterizes those by which it is preceded. As a series of scientific lectures on the higher orders of physical exercise, such as rowing and training, and a history of athletism, it is excellent, but it is too scientific, and looks too much into the past to be acceptable to the present generation as a popular dissertation on physical exercise.

The fifth article is on the Care of the Person, and was written by Arthur Van Harlingen, M.D., of Philadelphia, Pa., Chief of the Clinic for Diseases of the Skin, Hospital of the University of Pennsylvania. In this article are considered those means by which cleanliness, and the proper performance of the functions of the skin and its appendages are maintained, together with protection from the extremes of heat and cold and from external injury. The anatomy and physiology of the skin is presented in a brief but satisfactory and comprehensive manner. Then follow remarks on the bath, cosmetics, general bathing, clothing, beds, the care of the feet, the hands, the mouth, and the hair. The article reads like a story, and savors of plain, practical common sense.

The first article in Part II. of the first volume is on Soil and Water, and was written by William H. Ford, M.D., President of the Board of Health, Philadelphia, Pa. In this article the general subject of soil and water affecting health is studied under the three divisions of, constituents of the soil, pollution of the soil, and diseases produced by conditions of the soil. It is very elaborate, and occupies nearly 200 pages. It is one of the most comprehensive and valuable articles of the entire series. It is fully illustrated. Among the most interesting chapters are those on pollution of the soil by excreta, removal of excreta, methods of removal of excreta, the water system and

other systems, pollution of the soil by interments, by coal-gas, by surface defilement, and diseases connected with certain conditions of the soil.

The second article is on the Atmosphere, and was written by D. F. Lincoln, M.D., of Boston, Mass. For convenience the subject is studied under four heads: I. Natural Components of Air; II. Impurities; III. Meteorology and Climate; and IV. Ventilation and Heating. The chapters on heating and ventilation are fully illustrated, and contain descriptions of heating apparatus, remarks on stoves and furnaces, heating by steam and by water, and on ventilation. This article also has a bibliography. It is well written, and for the most part is within the grasp of the non-scientific reader.

The last article in the first volume is on the General Principles of Hospital Construction, and was written by Francis H. Brown, M.D., of Boston, Mass. The subject is considered mainly under the following heads: Location, General Character, Material, General Arrangement and Disposition, Arrangement of the several parts in Detail, Means of Heating, Ventilation, Drainage, and Cottage or Village Hospitals. It also has a bibliography, and is illustrated. This is a very readable article, and cannot but be valuable to those who are interested in the proper construction and management of this class of public institutions.

The book is printed with large type, on good paper, and is elegantly bound in a new style of binding. We see no reasonable ground for general criticism, and our special criticisms have already been indicated. Of the second volume, hereafter.

A Manual of Examination of the Eyes. A course of lectures delivered at the *École pratique*, by Dr. E. Landolt. Translated by Swan M. Burnett, M.D., Lecturer on Ophthalmology and Otology in the Medical Department of the University of Georgetown, etc.

Dr. Landolt's lectures form a convenient and valuable text-book, and Dr. Burnett has rendered a good service in translating them into English. The lectures are short, and each gives a clear account of the subjects treated. Revisions and additions have been made for this volume, which increase its value. At the back are convenient tables for the study of the ocular movements and their derangements. The book is of convenient size and well printed.

On page 67, in speaking of the asthenopic symptoms due to hypermetropia and presbyopia, the author says: "The cause of these phenomena is, as you are aware, an error of accommodation." We think this sentence objectionable when applied alike to both the varieties of asthenopia in question.

On page 70, in the description of muscular asthenopia, the author says: "In order to correct the insufficiency of the internal recti we seldom have need to make a tenotomy of one of them." Treatment by tenotomy is applied to the *external recti* in this kind of asthenopia.

On page 131 is this passage: "It was Donders who first called attention to the fact that the great majority of persons affected with convergent strabismus are hypermetropes, and that for the higher degrees of hypermetropia, strabismus becomes the rule." Compare the following extracts from the Sydenham translation of Donders' work on Refraction and Accommodation:

"In general, it is not the highest degrees of hypermetropia with which strabismus is combined."—Page 293.

"In the highest degrees of hypermetropia, strabismus is rarely observed." "We have already seen that strabismus is met with chiefly in mean degrees of hypermetropia. These belong to facultative and relative hypermetropia," etc.—Page 301.

On page 147 we read: "In passing from an illumination of a less to one of a greater intensity or inversely, it takes a certain length of time (about twenty-five minutes) for the retina to become accustomed to the altered illumination, and to put itself in harmony with it."

We think twenty-five *seconds* would be nearer the truth, judging from ordinary experience.

Reports of Societies.

WEST CHICAGO MEDICAL SOCIETY.

Special Meetings, August 11 and 18, 1879.

Dr. Norman Bridge, President, in the Chair.

The subject for discussion was,

THE SUMMER INTESTINAL AFFECTIONS OF CHILDREN.

Dr. Wm. E. Clark thought the intestinal disorders of infancy, of summer time, were chiefly diarrhœas due to indigestion and inflammations resulting from this condition. Cholera infantum was, in his belief, of very rare occurrence indeed.

Dr. H. Webster Jones said, to the prostrating effects of heat must be charged many of the intestinal affections of children in summer time. The excessive heat produced a depression of the nervous centres. He thought the habit among people was to dress babies too warmly in summer. Care should be taken to cover the whole body, and warmly, especially at night, when a chill was sometimes experienced by exposure of a part; but so much covering as to induce constant sweating, as was frequently the case, was to be discountenanced. The direct rays of the sun should be avoided. The abdomen might, during diarrhœa, be covered at night with a flannel bandage. Even adults were often benefited by this procedure when subject to diarrhœa. The eruption of the teeth was one of the influences capable of irritating the nerve-centres and inducing grave intestinal derangements. Free lancing of the gums, whenever this cause seemed in operation, was called for. His habit was to cut deeply if the eruption of the teeth seemed imminent; if not, to scarify thoroughly and induce free bleeding.

Infants in summer time should have freely of cool drinks—water—whether they were sick or not. Even when vomiting frequently he would give small drinks. The physician should always see the passages from the bowels of a child sick with any intestinal derangement. Frequently food would be discovered that had been eaten several days before. He had found in fæcal dejections seeds of fruit that, if parents were to be believed, had been eaten nearly a week before. Children should generally not eat the fruits from city markets. Those with seeds were always objectionable on this account, and the fruits furnished by city dealers were generally stale and acescent, and would disarrange the bowels of child or adult with delicate digestion.

Many children were unable to take milk; it habitually disagreed with them. With such it should be eschewed. Many who could not take plain milk were able to take condensed milk.

He was satisfied that at times the Chicago water was bad for sick children; whether it was due to

some contamination from the city sewers he could not say, but thought unlikely. Beef-tea for children should be very weak; in a concentrated state it did more harm than good.

For treatment when the bowels had been emptied of undigestible food, and the passages were still acescent, he had found nothing so good as a powder of one-sixth to one-eighth gr. calomel, one-quarter gr. bicarbonate sodium, one-half gr. subcarbonate of bismuth; one powder to be given every four to eight hours. Six to eight powders would generally induce less frequency of, and more normal passages. There never failed to be a slight rise of temperature and increase of thirst on the passages becoming less frequent.

On being asked his treatment of cholera infantum, he said he would treat it like cholera in the adult. For this he regarded calomel and piperine as the most valuable medicines.

Dr. C. W. Earle thought, in the management of the diseases under discussion, medication was useless without proper feeding. The most frequent of these disorders was simple non-inflammatory diarrhœa, due to improper feeding, cold, or dentition; this, if not relieved early, passed into an inflammatory state, namely, entero-colitis. It was the latter that almost alone caused the mortality. Not all sick babies could take the same kind of food. Barley-water and oatmeal-water agreed with most. Theoretically, fats were unadapted, yet practically they frequently agreed perfectly. When curd was voided undigested, milk should be wholly withdrawn for a time and rice-water substituted, or a little cream, sugar, and salt.

Medicines were not of much value. Chalk mixture was to be recommended. He would use alteratives sparingly.

What was to be done for a child at the breast of a healthy mother, the child having ten to fifteen green passages daily? Such cases were frequently encountered.

Dr. T. P. Suley thought it of great importance, in beginning treatment, to empty the bowels thoroughly by a cathartic. Some of the agents known as antiferments worked well to prevent decomposition of food and acescent discharges. He thought rides upon the lake very beneficial. For cholera infantum proper he suggested the use of ergot hypodermically.

Dr. A. H. Foster had found that seventy-five per cent. of his cases of bowel troubles among children during the present season had occurred during the last week of June and the first week of August, when there was a succession of hot days. The most vigorous children got sick first—the weakly ones came down later. The stout ones sickened earliest because they took more exercise, were more exposed, and became more fatigued. Heat was the great cause of the disorders under consideration. He had found many of the diarrhœas to be complicated with malarial disorders, and this most in parts of the city where there were no sewers. He related a case of a sick infant for whom a cow was kept to supply milk, but the milk disagreed as long as the animal was kept to grass, but was borne well as soon as she was put permanently in stable and fed on hay and grain. He thought beef-tea was much inferior to mutton-tea, and condensed milk was much preferable to ordinary cow's milk. Weak solution of white of egg in water was a proper diet for many cases.

He objected to preparations of chalk mixtures in which cinnamon entered as an ingredient. The latter often contained irritating oils that would burn the lips of even an adult. A better way was to use subcarbonate of bismuth and prepared chalk in powders, which could be readily shaken up with milk.

Dr. E. W. Lee called the attention of the Society to the value of suppositories of iodoform, belladonna, and opium, for the diarrhœa and tenesmus attending many of the bowel troubles that had been spoken of. He knew nothing that would quiet the diarrhœa and tenesmus so quickly, surely, and harmlessly, as this remedy. For a child a year old he would use in each suppository 1 grain iodoform, ¼ grain extract belladonna, and ¼ grain opium.

Dr. J. S. Knox thought alcoholic stimulants were of of much more value than the remarks of members would lead one to think. He knew of no single remedy so valuable for the depression and diarrhœa among children of hot weather. He would use it freely, to the extent of several ounces of brandy or whiskey daily, if it seemed to be called for.

He thought milk would agree much better with infants if a little starch and salt were mixed with it. Salt he thought much better than sugar. Salt was a great aid to the digestion of casein, and starch prevented its coagulation into chunks of curd.

For entero-colitis he used large injections of bismuth suspended in milk, with considerable benefit.

The President remarked, in reply to an inquiry of Dr. Earle as to the cause of the frequent and green passages of infants nourished by healthy mothers, that he believed the whole trouble lay in the taking of too much milk by a child that was slightly feverish and simply thirsty. These babies, by the depression of the heat or otherwise, got slight indigestion and became a little feverish; as a consequence they were thirsty, and cried and worried a great deal. They were fed enormous (to them) quantities of milk simply because they were thirsty, and must take this fluid or nothing. These children were not hungry, as they constantly appeared to be, but only thirsty. Stop their food, and give them water with a very little whiskey, and they would improve rapidly.

Dr. E. Ingalls thought cases of summer diarrhœas of children were so various that no routine treatment could be given. Hot weather, to be harmful, must be continuous for several days. If half the day was cool, little harm would be done.

He thought the best treatment generally was cathartics to empty the bowels, small doses of opiates, and abstinence from food.

He thought children often did as well on artificial food as on mother's milk; it was not true that the only food for a baby was mother's milk. He would much sooner risk feeding a child from the bottle—if it could be properly attended to and nursed—than have it fed from the breast of a mother in ill health.

Dr. H. M. Lyman gave a concise account of the pathology of the different forms of bowel affections, which attracted marked attention.

There had been less real cholera infantum in Chicago since the streets had been so thoroughly sewered; there was less of it among the acclimated population than among new-comers.

In cases of real inflammation the proper treatment was mild purgatives. Calomel in small doses was the best. If there was an acid state of the dejections due to decomposition, alkalies should be given.

Dr. C. W. Earle spoke of a brief experience with the use of kumyss in bowel derangements and when other food was with difficulty digested. His experience had been favorable.

Dr. D. W. Graham related one case in which he had used kumyss. It was in a baby who had for many weeks had indigestion and diarrhœa. Emacia-

tion was considerable. It had frequent, but no natural passages. From the hour it began to take kumyss in small doses it became quiet; the passages became natural, and showed—what had not existed before—an absence of undigested food. So far (two or three weeks) any attempt to return to the use of the food formerly taken was followed by a disturbance of the bowels and the passing of undigested particles.

Correspondence.

CASE OF FRACTURE OF THE FEMUR TREATED BY IMMEDIATE EXTENSION FORCE ON THE DISTAL FRAGMENT.

To the Editor of The Medical Record.

Dear Sir:—Willie Bucher, aged 14 years, at a "picnic," August 26, 1878, clung to a scup, double seated and having some persons in it. The scup having oscillated a few times with considerable velocity, the lad tried to get off from his clinging position. But when his feet came to the ground the scup overtook him and hit him on the anterior aspect of the left thigh, fracturing the femur at junction of middle and upper third, with a loud report. He was conveyed in a wagon home. I found the patient in great agony, the thigh in a deformed and somewhat swollen condition, with the distal fragment overlapping anteriorly. I procured speedily bandages, cotton-batting, four short, light wood splints, and some adhesive plaster; then extended and coaptated the fragments, and applied a piece of adhesive plaster on each side of the thigh, each piece being about one-third the circumference of the thigh at the point of fracture, diminishing in width down to a point four inches beyond the knee, and then overlapping them so as to form a loop below the knee to receive a piece of thin board three inches square. The adhesive straps being snugly applied, the splints, well padded with cotton batting, were applied. The widest one—for the thigh to rest upon—placed posteriorly, from the tuberosity of the ischium to the hock; another on external aspect, from a little above the hip-joint to the knee; another on internal aspect, from ramus of ischium to the knee; the other on anterior aspect, from groin to upper edge of patella; then all were tied snugly in place at four different points with pieces of narrow bandage, and a couple of narrow strips of adhesive plaster placed around them. The edges of approximating splints were separate from each other about an inch, and each tapered—becoming narrower—towards the knee, so as to correspond somewhat with the circumference of the thigh at its various points. Then a bandage was snugly applied from the instep to the groin—making some allowance, as regards tightness, for the swelling of the thigh which might be expected to ensue. The patient was then placed in a narrow bed—properly prepared—to the footboard of which was fastened a piece of thin and narrow board, a little thicker and wider than an ordinary wall-lath, which extended about eighteen inches above the level of the prepared mattress. Around this lath was placed an india-rubber ring. Through this ring and through the loop at the knee—with the square piece of board in it—was passed a piece of bandage, the ends of which were tied so as to make the strip of bandage tense enough to stretch the rubber ring; and also to make considerable traction on the adhesive-plaster strips on the thigh. This piece of bandage was kept tense in a direct line with the thigh placed in a normal attitude, the patient being in a supine position. A greater degree of traction was required the first two weeks than afterwards. By this tension, through means of the adhesive plaster, the muscles, fasciæ, and integuments of the thigh were kept conservatively close to the fractured ends of the fragments, and the muscles were thus gently persuaded to discontinue contraction, or twitching. When the lad was completely fixed, he changed his previous tune of crying to whistling and singing, to alleviate his mother's bewailing. As the swelling of the thigh assuaged, the splints were tightened snugly around the thigh; at the end of the third week they were removed and a plaster splint put on the thigh. Extension was continued as hitherto; for the plaster, in the course of a week, became too easy a fit—from the shrinkage of the soft tissues, I suppose.

Counter-extension was procured in the usual manner, by elevating the foot of the bed by a brick placed under each of the two posts.

The extending force was somewhat similar to that in general use in such cases, and known as Buck's extension method, only that it was used at a comparatively higher level than is usual, and that it was used to make traction immediately on the lower fragment, instead of through the ankle, the leg, and the ligamentous tissues, and muscular attachments around the knee-joint, which is the usual mode.

The points of advantage by the method of immediate application of extension force to the lower fragment were recognized to be the following: 1st, collateral support to the soft tissues around the fractured ends of fragments; 2d, less force was requisite, as there was no loss of force, it being used immediately on the fragment; 3d, the direction of the force could be more accurately adjusted, as the rubber ring could be elevated or lowered, or the thigh could be elevated or lowered towards the knee quite readily; 4th, the limb, from the condyles of the femur down to the foot, were left quietly unconcerned; 5th, the thigh was the only part of the patient that it was requisite to keep in a permanently fixed or stationary condition. It may be conceded that these points are of considerable importance in treatment of an injury so serious, and which requires confinement to the bed for several weeks.

Now for the question in regard to the result: The answer is, a perfect result—no shortening, no lameness. He resumed his attendance at school when it opened after the Christmas vacation; and when the ground had become unfrozen he could walk and run in the same fleet manner as before the accident. His is the fourth case of fracture of femur treated after the same plan by me, and reported in the Record. The first of said cases was one of gunshot fracture, Minié-ball penetrating the femur at the greater and lesser trochanters (reported in The Medical Record, Vol. I., No. 20, p. 466); the second and third cases were simple fracture of femur in children (reported in Record, Vol. XIII., No. 5 (whole No. 378), p. 95). Respectfully,

W. M. Dorran, M.D.

Mount Vernon, N. Y., August 19, 1879.

Edison's Stethoscope.—Edison states that he is experimenting on a stethoscope with every prospect of success. It will, however, be too expensive for general use.

RHUS-POISONING.

To the Editor of The Medical Record.

Dear Sir:—There is an article in the Record for August 2d, also in the Michigan *Medical News* for July 25th, upon the treatment of rhus-poisoning. From the numbers of articles lately contributed upon that subject, there must be an increasing interest in its treatment.

During a long practice in the country, I had much to do with this form of poisoning, and, like many others, had some trouble in treating it until I used the sulphite of soda, and now have almost no trouble in its treatment. Cover the parts affected with soft cloths, and keep them wet with a saturated solution of the salt in distilled or rain water, adding such additional treatment as may be indicated in each particular case. I have no theory as to the nature of the disease, or the action of the remedy. I was induced to try it in these cases from my success with it in the various forms of erysipelas.

While writing the foregoing, I call to mind that in a very brief article in the "Archives of Dermatology," Vol. IV., No. 4, page 320, I recommended the sulphite of soda for rhus-poisoning. In Vol. V., No. 111, page 227, and onward in that journal, there is a systematic article, by Dr. Rosswell Park, of Chicago, Ill., upon the rhus family, its poisoning, its treatment, etc., in which a number of remedies are suggested. but the soda sulphite is not among them. I dislike to call attention to the same remedy the second time, but as it appears to have been overlooked, will offer it again for what it is worth.

A. G. Smythe, M.D.

Baldwin, Miss., Aug. 20, 1879.

A WOUND SEVERING THE LARYNX AND ŒSOPHAGUS.

Complete Recovery, and Subsequent Death from Hanging.

To the Editor of The Medical Record.

Dear Sir:—The following may be of interest to many of your readers:

Case.—Wm. Barret, American, born in Ohio, æt. 32; strong and well built; living in the country about three miles from Sigourney, Keokuk Co., Iowa; while in a temporary fit of insanity attempted suicide on Oct. 10, 1878, by cutting his throat with an ordinary razor. He was discovered in the act, but was not arrested before he had, by repeated desperate cuts, severed not only the larynx, but the œsophagus. The wound was in the thyro-hyoidean space, about three inches in length, and extended back entirely through the larynx and œsophagus, and brought into perfect view the vocal cords. The hemorrhage was at first quite profuse, and faintness soon rendered him manageable. He was laid upon a bed, and Dr. S. D. Cook, of Sigourney, a very competent surgeon, to whose skill and tireless attendance the results in this case are largely attributable, was hastily summoned. The hemorrhage had very materially lessened by the time the doctor arrived, and was without difficulty controlled by torsion and pressure. The wound was cleansed and the patient placed in an easy position for respiration, which function was performed entirely through the severed larynx.

I was summoned to assist in the case on the succeeding day, and arrived with Dr. McWilliams, of Sigourney, at about 11 A.M., Dr. Cook being present with patient. Found patient quiet and apparently comfortable, save when free amounts of mucus clogged up the larynx.

Guided by the index-finger in the wound, we were able, after some trouble, to introduce the tube of a stomach-pump into œsophagus and stomach. Using this as a guide, I with much trouble succeeded in introducing two sutures into the walls of the œsophagus, embracing its mucous coat, which seemed sufficient to maintain them in apposition. The lateral and anterior parts of the larynx were brought well together by deep interrupted sutures, which were made to embrace the fibrous coatings of the thyroid cartilage and hyoid bone. The wound was further closed by short strips of adhesive plaster, and his head tied firmly forward, with the chin well upon the superior part of the sternum. Before withdrawing the tube, we pumped into his stomach one and a half pints of good nice soup, the first nourishment or fluid that he had received or attempted to take since the accident.

For forty-two days ensuing he was sustained by nutritive enemas, save once when a small amount of soup was injected through a large-sized catheter into the stomach, his condition being that of a well-nourished person. After this time, for the space of about two weeks, he was fed by injecting soup into his stomach every day, or on each alternate one, as the doctor found it convenient to visit him, the enemas being continued. Subsequent to this latter period, however, he began to be able to swallow water and soups, not without some difficulty, as not infrequently some parts of those substances would be regurgitated or forced out through the external wound, which it had been impracticable to keep well closed by the suture before mentioned. As soon as he began to indulge in the acts of swallowing, the regular use of œsophageal bougies was commenced. The patient soon learned to introduce them himself, and was shortly able to dispense with them entirely.

The external wound was entirely healed about Jan. 1, 1879, while the one between the larynx and œsophagus gave evidence of being patent until about the 10th of the same month. His voice was but slightly, if at all, affected. The injections were generally well tolerated, and when not so, small amounts of morphine and lactopeptine were combined with them. The morphia was sometimes essential to control his inordinate thirst or hunger. His recovery was regarded by all as marvellous and complete, and he had resumed labor upon his farm when, on the 10th of Feb., 1879, eluding the vigilance of his friends, he hanged himself. No post-mortem examination was made or allowed.

This case is interesting chiefly in showing:

First.—Recovery from a wound which some surgeons had declared as necessarily fatal, claiming that it was impossible for these tubes to be thus divided without severing some of the large vessels and nerves of the neck. No ligatures were applied, nor were any important arteries cut. The hemorrhage, which was somewhat troublesome during the first closing of the wound, appeared to be from a branch of the superior thyroid and, perhaps, also one of the branches of the lingual, was readily arrested by torsion and pressure. The coats of the left carotid were exposed in the wound, so near had it come to being cut or severed. There was no troublesome œdema of the glottis or vocal cords, nor any inflammation of the bronchi, which was carefully guarded against by keeping the air of his room moistened and at a somewhat elevated temperature.

Second.—As showing how completely the demands

of nature for nourishment and drink may be answered by injections of these substances into the rectum.

Third.—In demonstrating how utterly inefficient, for the closure of a wound of this extent, are the directions usually given in most of our text-books. Neither the coarsest ligature, silk or wire sutures, would much delay the reopening of the wound from the cutting of the sutures in the tissues. Bands of common adhesive plasters placed about the neck above and below the cut, and the lower tied to a head-band, while the upper one was tied to a band about the body beneath the axilla, answered the indications as well as anything used; but this dressing was essentially a failure.

I now think that in another case I should not hesitate to insert a silver wire through the thyroid cartilage and pass it about the hyoid bone, and thus forcibly retain the parts in due apposition.

D. Scofield, M.D.

Washington, Iowa, July, 1879.

EXOPHTHALMIC GOITRE.

To the Editor of The Medical Record.

Dear Sir:—The very instructive clinical lecture upon exophthalmic goitre, by Prof. Jacobi, in the Record of the 5th inst., reminded me of how little instructive literature there is upon the subject, and induces me to report a case I have been treating the last few months:

Miss ——, aged 34, teacher; nervo-bilious temperament; family history excellent, and life until twenty-nine years old most vigorous.

I took no notes of the case at the time of examining it, so, when determined to report it, addressed by mail a series of questions to the patient for the purpose of obtaining a correct and as complete a history as possible up to the time she came under my observation.

She says, in substance: "In 1874 I was engaged in teaching, and had entered into engagements to go to Persia to take charge of a female seminary; and to better fit myself for the position, determined to obtain some knowledge of scientific medicine, and devoted every moment I could possibly spare to this study, retiring at eleven and rising at four to five o'clock, to study before breakfast. Taught a large and interesting Sabbath-school class on Sundays.

"In May (1874), having already become very sleepless and lost all relish for food, I noticed, when extending my hand, that it trembled, that my fingers trembled all the time, unless supported—no jerking, a steady trembling—which gradually and constantly increased; and I soon noticed my feet trembled. It was observed I was losing flesh. About the first of June large styes appeared upon my eyelids, which compelled me to stop work and study. The trembling increased, and in the latter part of June a large abscess appeared upon my cheek.

"Was troubled at this time with a profuse disagreeable perspiration, requiring a towel to dry my face, hands, and arms. In July, the glands (evidently the thyroid) of my neck enlarged, and my eyes appeared unnatural. The physicians said my eyes *appeared* larger and brighter, owing to my loss of flesh and paleness. My pulse was 120 to 130. I took iron, quinine, and bromide of potash, and my appetite and strength improved for a short time; but I continued uninterruptedly to grow worse in all other respects. The menses grew less, and ceased in August for seven months. I began to have paroxysms of irregular action of my heart, with a burring noise in my neck, which, with appetite, strength, and all the other symptoms, gradually and continuously grew worse. I was so sleepless that I sometimes thought I never should sleep again, and when I did, perspired so profusely that I was completely exhausted upon awaking. Continued to grow worse until January (1875). Had been taking tonics all the time, and aloes and salt-water baths a part of the time, and electricity had been applied to my spine a number of times with markedly injurious effect. At this time was too weak to stand; pulse so rapid that the doctor could not count it at times, but usually 140 to 160. No one believed I could live two months. In January plan of treatment was changed, and I took digitalis, quinine, and powders of chlorate of potash, and some kind of pills every night. Have at no time suffered any pain anywhere. My neck was enormously large, and my eyes (not inflamed) protruded so that they almost seemed to lay upon my cheek.

"In March was some better, stronger, and menses appeared. Was advised to go away for change. Was injured thereby, and returned in a month. Again improved, and in May could walk a little again; but in June, the weather having become oppressively warm, I grew worse, and in August menses again ceased until December following. During September the doctor concluded my disease was a form of chorea, and froze my spine with atomized sulphuric ether five times. During following winter and spring, 1876, was better, but worse again in summer. Discontinued medicine in March, because it seemed to have lost its effect upon me. Took nothing for several months, and remained in about the same condition.

"Then went to a lady, who gave me sixteen 'electrical baths' and 'a homœopathic remedy for each symptom.' Improved rapidly, and very soon could sew a little and do light housework. Came to Utah in following November, 1877, and since have worked hard at teaching continuously, except from 28th of last December to 24th of February, during a part of which time I was in Salt Lake City under your daily observation. During all that interval the symptoms all continued, but in a mild degree. In October I noticed I was more nervous, sleepless, with less appetite, and felt very weary all the time.

"In middle of November began again to suffer violent paroxysms of irregular action of my heart and a burring noise in my neck; also to suffer (as I had not before) from a severe pain in my back and in front of each hip; also violent cramps in my feet and ankles."

January 12, 1879, Miss —— came to Salt Lake City and consulted me. Found her suffering from exophthalmic goitre, subacute inflammation of ovaries, and spinal irritation. Had been during the last year teaching a mission school of from thirty to sixty-five pupils in one of the neighboring settlements, under as unfavorable sanitary conditions as it is possible to conceive of—as regards overcrowding, ventilation, inconvenience of arrangement, etc.—duties very arduous for a healthy person under favorable sanitary conditions.

Present condition.—Temperature under tongue, 99°; pulse, 130 to 140, when not excited. No appetite; bowels torpid, and fæces dry and hard when passed. No trouble in digesting the food taken; kidneys acting normally. Skin moist, and perspires with preternatural freedom and profuseness, she reports. Menstruates regularly, but suffers unusually constant, severe pain in back, hips, and ileo-pelvic region; soreness upon pressure in region of ovaries; exquisite tenderness over eleventh and twelfth dorsal vertebra; frequent, very severe cramps in feet and ankles; pain

and numbness along sciatic nerves; cannot sleep more than three or four hours in the twenty-four; eyes protruding so that lids can scarcely close over them; thyroid gland enlarged to four or five times its normal size; fingers, when not resting upon some support, tremble quite violently; severe paroxysms of irregular action of the heart, almost to syncope.

Prescribed *rest* of body and mind, complete as possible; a two-grain pill of monobromated camphor at bedtime every night.

℞. Quin. s., zinci ox., digitalis fol., āā gr. xxiv.; aloine, ex. bellad., āā gr. iv.; pulv. ipecac., gr. ij. M. Ft. pil. No. 24. Sig. Take one three times daily, an hour before meals.

One pill zinci phosphide et ex. nux vom. (Hammond's), three times daily, immediately after meals.

℞. Unguent. atropia, unguent. iodoform. (℥ i. to ℥ i.); chloroform, ℥ i.; ol. lavend., gtt. q. s. M. Ft. unguent. Sig. To be applied freely twice daily over tender ovarian region.

℞. Liniment. capsici (B. P.), applied freely every day to spine from nucha to sacrum.

Emplast. bellad., 3 × 6 in., to be worn continuously over tender part of spine.

Marked improvement commenced immediately. On account of toxicological effect of bellad. induced, I was soon compelled to reduce the proportion of atropia in the ointment to gr. iv. to the two ounces of ointment.

At the end of two weeks slept and ate well. Paroxysms of irregular cardiac action mild, and not more than once daily. No longer annoyed with the burring sound in neck. Pulse, 90 to 100. Pain in the back slight, and but a part of the time. Pain and numbness along sciatics and cramp of feet and ankles no longer felt at all. Trembling of fingers but slight; none of the feet observable. Profuse papular eruption along spine. Liniment to be suspended until eruption is healed, and then resumed a little less freely. Pill of monobromated camphor discontinued, as no longer needed.

For the *two* kinds of pills before prescribed, substituted the following as less troublesome:

℞. Pulv. digitalis fol., quinia. s., āā gr. xlviij.; zinci phosphidi, ex. nux vom., āā gr. xij.; pulv. ipecac., gr. iij. M. Ft. pil. No. 48. Sig. Take one pill three times daily.

Progress of improvement continues entirely satisfactory in every respect.

On the 13th of February the patient left the city to return to the field of her labor, but with strict injunctions not to go into school or perform any other labor until strength should be fully restored, and free from all morbid sensations.

At this time the thyroid gland was reduced one-fourth to one-third. Eyes markedly less prominent. Not more than three or four paroxysms of irregular cardiac action in a week. Pulse, 80. No spinal or ovarian tenderness.

Notwithstanding my strict injunctions, Miss —— commenced teaching her school on the 24th of February. Reported to me a few days after, that "the only signs of disease present were prominence of the eyes, enlargement of the thyroid gland from one-half to two-thirds its size in January, when I first saw her; an occasional mild paroxysm of irregular action of heart, and strength not quite up to normal standard." She has continued the pills of digitalis and the phosphide, which has enabled her to labor hard continuously up to present time without losing, and I think she has not gained flesh.

The following is her present report: "Sleep remarkably well—as well as I ever did in childhood. Appetite excellent. Trembling of my fingers so slight that I do not observe it for several days sometimes. The irregular action of the heart does not occur more than three or four times a week, and then very slight. My pulse 80 when I take the medicine, but when I stop it runs up to 90 or 95, and I do not sleep quite so well. My friends remark the improved appearance of my eyes. I have not been so free from all the symptoms of the exophthalmic goitre since I was first attacked. I have fifty pupils in the day-school and forty in my Sabbath-school class, and am still teaching in the old building."

I will make but two reflections: first, I have no doubt the patient would have been entirely cured before this time if she had refrained from taxing her strength; and, secondly, I believe an application of the constant (galvanic) current would have been eminently beneficial.

GEO. C. DOUGLAS, M.D.

SALT LAKE CITY, UTAH, July 20, 1879.

New Instruments.

INSTRUMENT FOR SHAVING ICE FOR HOSPITALS.

BY WILLIAM F. HUTCHINSON, M.D.,

PROVIDENCE.

ABOUT six months ago my friend Capt. Henry F. Jenks, a well-known inventor of this State, was in close attendance upon his sick wife in Pawtucket. Fever was running high, and Dr. Clapp had ordered iced drinks repeated frequently. About the middle of the night the supply of broken ice gave out, and the captain went down to the refrigerator in the cellar for more. After half an hour's hard work, he succeeded in shaving up a tumblerful with a big knife, expending, during the operation, large quantities of patience and ice, some vigorous language, and a piece or two of his left hand.

Returning to his post, his inventive brain set in motion that portion of its convolutions which have control of the ice-scraping function, and the handy little tool pictured herewith was the result.

With it one can noiselessly and easily fill a tumbler with powdered ice in three minutes, by holding the lump in place with one hand, and scraping with the other. I have employed it very frequently in sick-rooms, during the past summer, and commend it to the profession as a very valuable labor-saving machine in a small way.

The instrument is made of malleable iron, shaped as seen in the cut, with a cutting face of steel, set as is the knife of a hand plane. A handle projects from one side, and, when used, the lump of ice is steadied by one hand while the scraper is drawn over its surface. The box or hopper is filled rapidly and with scarcely any exertion. The whole instrument weighs about four ounces, and is about five inches in length, inclusive of handle. I often carry one in my pocket.

Obituary.

CLEMENT A. FINLEY, M.D., U.S.A.

CLEMENT A. FINLEY, formerly Surgeon-General of the U. S. Army, died on Monday, Sept. 8th, at his residence, No. 5 Woodland Terrace, Philadelphia, in the eighty-second year of his age. He was born at Newville, Cumberland Co., Pennsylvania, in 1797, and was a son of Samuel Finley, a major in the Virginia line during the Revolutionary War, and who was receiver of public moneys from the sale of public lands during the administration of Washington. Dr. Finley was educated at Washington College, Pennsylvania, and studied medicine at the medical college of Chillicothe, Ohio, graduating from that institution in 1818. In that year he entered the United States army as surgeon's mate of the First Regiment of Ohio Infantry, stationed at Baton Rouge, Louisiana. He subsequently filled the position of assistant surgeon, and was medical director in the field in the Black Hawk, Seminole, and Mexican wars. He passed eight years on the frontiers in Arkansas, Louisiana, and Florida, accompanying the commands that established Fort Leavenworth, Jefferson Barracks, and Fort Gibson, and was a member of one of the earliest expeditions to the Rocky Mountains, *i. e.*, that organized in 1834. In 1861 he succeeded General Lawson as Surgeon-General of the United States Army. In 1862 he was retired from active service, on his own application, after having served forty-four years. The commission of Brevet Brigadier-General was bestowed upon him by President Lincoln, in reward for his long and faithful services. Dr. Finley married, in 1832, Elizabeth, daughter of Dr. Samuel Moore, who was at that time Director of the United States Mint, and formerly a member of the Lower House of Congress from Bucks Co., Pennsylvania.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 17 to August 23, 1879.

JANEWAY, J. H., Major and Surgeon. Assigned to duty as Post Surgeon, Fort Columbus, New York Harbor, and Attending Surgeon, Headquarters Military Division of the Atlantic. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

SMART, CHARLES, Capt. and Asst. Surgeon. Relieved from duty in the Department of the East, and to report for temporary duty to the President of the National Board of Health, Washington, D. C., for chemical and microscopical work. S. O. 204, C.|S., A. G. O., Sept. 4, 1879.

VICKERY, R. S., Capt. and Asst. Surgeon. By direction of the Secretary of War, the operation of so much of Paragraph 3, S. O. 195, A. G. O., Aug. 25, 1879, as relates to this officer, is suspended until Oct. 4, 1879. S. O. 208, C. S., A. G. O., Sept. 9, 1819.

STEINMETZ, W. R., Capt. and Asst. Surgeon. Having been found by an Army Retiring Board incapacitated for active service, is, by direction of the Secretary of War, granted leave of absence until further orders, on account of disability. S. O. 209, C. S., A. G. O., Sept. 10, 1879.

TURRILL, H. S., Lieut. and Asst. Surgeon. Assigned to temporary duty as Assistant to the Attending Surgeon at Headquarters, Mil. Div. of the Atlantic, and to the Post Surgeon, Fort Columbus, New York Harbor. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

BANISTER, J. M., Lieut. and Asst. Surgeon. Relieved from duty at Fort Leavenworth, Kan., and assigned to duty at Fort Reno, Ind. Territory. S. O. 171, Dept. Missouri, Sept. 13, 1879.

NAVY NEWS.

List of Changes in the Medical Corps in the Navy from August 20 to August 30, 1879.

August 20th.—Medical Inspector P. S. WALES, appointed Surgeon-General U.S.N., and Chief of Bureau of Medicine and Surgery, Navy Department, vice Surgeon-General J. W. TAYLOR, retired.

August 21st.—Surgeon ADRIAN HUDSON, appointed Assistant to the Bureau of Medicine and Surgery, vice Surgeon J. B. PARKER, detached and placed on special duty temporarily.

August 22d.—Surgeon A. A. HOCHLING, ordered to special duty at Washington, D. C., attending officers of the Navy and Marine Corps, vice Medical Inspector P. S. WALES, detached.

August 26th.—Pd. Asst. Surgeon J. R. WAGGENER, detached from the Passaic and ordered to the Nautical School-ship St. Mary's, vice Pd. Asst. Surgeon B. F. ROGERS, detached and ordered to the Michigan.

August 26th.—Pd. Asst. Surgeon H. P. HARVEY, ordered to the U. S. Receiving-ship Passaic, Washington, D.C.

August 27th.—Assistant Surgeon DANIEL M. GUITERAS, ordered to the Powhatan, vice Asst. Surgeon RICHARD ASHBRIDGE, detached and granted three months' leave.

August 28th.—Pd. Asst. Surgeon H. AULICK, detached from the Naval Hospital, Mare Island, Cal., and ordered to the Tuscarora, vice Asst. Surgeon M. H. CRAWFORD, detached and ordered to the Receiving-ship at Mare Island, Cal.

August 29th.—Medical Inspector WILLIAM M. KING, ordered to the U. S. S. Shenandoah, and as Fleet Surgeon of the South Atlantic Station.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 13, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 6, 1879.	3	16	35	0	14	14	0	0
Sept. 13, 1879.	0	17	23	1	19	15	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis, from September 10th to September 15th inclusive, was 87, and the number of deaths that occurred was 44. The total number of cases for this year to September 16th is 1,182, and the total number of deaths 376.

HAVANA.—Latest advices from this city show that during the past week there was a decrease of 13 in the mortality from yellow fever. The number of deaths in the previous week was 65.

DR. WILLIAM A. HAMMOND.—Upon the recommendation of the Secretary of War that the findings and sentence of the general court-martial in the case of Surgeon-General William A. Hammond, referred to in an Act of Congress, approved March 15, 1878, be annulled and set aside, the President of the United States, R. B. Hayes, has, in accordance with the authority conferred by the act, ordered and the General of the Army, W. T. Sherman, has commanded that the name of William A. Hammond be entered upon the retired list of the army as Surgeon-General, to date from August 27, 1879.

HYPODERMIC INJECTION OF MORPHIA.—Dr. H. H. Kane, who has, for some time past, been collecting statistics on the hypodermic injection of morphia, would consider it a great favor if members of the profession who see this, and have had experience with the instrument, will answer the following questions:

1. What is your usual dose?
2. Do you use it alone, or with atropia?
3. What is the largest amount you have ever administered?
4. Have you had inflammation or abscess at the point of puncture?
5. Have you had any deaths or accidents caused by this instrument?
6. Do you know of any cases of opium habit thus contracted?

Where there has been an autopsy (5) please state the fact and the results obtained therefrom. All communications will be considered strictly confidential, the writer's name being used only when he gives his full consent thereto. Address all letters to Dr. H. H. Kane, 366 Bleecker Street, New York.

THE PENNSYLVANIA STATE HOSPITAL COMMISSION.—The members of this Commission, which was appointed by the Legislature to select a site in the Schuylkill coal regions for the erection of a hospital, where miners and others connected with the coal mines can receive such medical attention as may be necessary, met at the Girard House, Philadelphia, on Sept. 2d. The bill provides that the land upon which the hospital is erected shall be given free of cost, and that the State shall appropriate $60,000 for the building. The money is now ready, and the Commission will receive proposals for the site until the 13th inst. The probabilities are, however, that the hospital will be built at Pottsville. The Commission is composed of D. A. Beckley, chairman, Bloomsburg; J. R. Eby, Harrisburg; John W. Morgan, Shenandoah; T. F. Kerns, Pottsville; Gen. Wm. Lily, Mauch Chunk; William James, Shamokin. The Commission have invited to accompany them in their visits to the various hospitals, Dr. A. H. Halberstadt, Pottsville; L. A. Lush, Schuylkill County, and L. R. Keefer, Schuylkill County. The only institutions that they visited in Philadelphia were the Pennsylvania Hospital, Hospital of the Jefferson College, Presbyterian Hospital, and Hospital of the University of Pennsylvania.

PHYSICIANS AT HOME.—We congratulate Drs. Fordyce Barker, E. G. Loring, C. R. Agnew, H. F. Walker, and Geo. M. Beard, on their safe arrival from Europe. They come refreshed for the active labor of the winter campaign.

ESERINE IN GLAUCOMA.—This drug has recently been much extolled for its beneficial effects in glaucoma. Dr. M. Landesberg, however, in the *Philadelphia Medical Times*, cites nine cases where he had used it, and with undoubtedly injurious results. He concludes that it is not only an unreliable and worthless, but even a dangerous agent in glaucoma, since its primary results may lull the physician into a delusive security.

REPLANTING OF TEETH.—Dr. J. N. Prather, of San Francisco, Cal., writes: I notice in the August number, page 144, your paper, that "Dr. Thompson, of San Francisco, is now in London showing the profession there his new method of replanting teeth." That the minds of your readers may be further enlightened, I will state that replanting teeth is no new discovery, but has been practised more or less for ages. But the profession considers the replanting of teeth very impracticable, except in isolated cases. When a tooth is extracted the nerve is severed, and death to the tooth is inevitable; when returned to its former position, if properly anchored, it may adhere as strongly as ever to the surrounding parts, yet a tenderness will almost invariably be felt in mastication; they frequently act as irritants and ulcerate at the apex, thus becoming disagreeable and offensive, the crown turns dark, and it is thought they are more susceptible of decay.

ANTI-VIVISECTION IN ENGLAND.—The feeling against vivisection in England has been stirred up till it has become dangerous to scientific interests as well as absurd from every sensible point of view. A bill was finally presented in Parliament for the total abolition of vivisection, and it was strongly urged from some quarters. It has recently received a quietus, however, being defeated in both houses. The vote in the House of Lords was 81 to 16.

VOMITING IN PREGNANCY—COPEMAN'S METHOD.—Dr. J. T. Baldwin, Professor of Anatomy in Columbus Medical College, reports three cases of the successful application of the above method. It consists in thoroughly dilating the external os and cervical canal with the finger. In one case almost every other measure had been previously tried, and abortion was being seriously considered. Upon dilating the cervix, however, the vomiting ceased at once.—*Ohio Med. Recorder.*

BOOKS RECEIVED.

ON ASTHMA: Its Pathology and Treatment. B. J. B. BERKHART, M.D. London: J. & A. Churchill, New Burlington Slip. 1878.

TRANSACTIONS OF THE OHIO STATE MEDICAL SOCIETY, 1879. Columbus, O.: Cott & Hann, Book Printers. 1879.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, M.D. Parts 3 and 4. E. B. Treat, 805 Broadway, New York.

A GUIDE TO SURGICAL DIAGNOSIS. By CHRISTOPHER HEATH, F.R.C.S. Philadelphia: Lindsay & Blakiston. 1879.

PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS, ALSO POISONS OF THE INTELLECT. By CHARLES RICHET, A.M., M.D., Ph.D. Translated by EDWARD P. FOWLER, M.D. New York: William Wood & Co., 27 Great Jones Street. 1879.

ANALYSIS OF THE URINE, WITH SPECIAL REFERENCE TO DISEASES OF THE GENITO-URINARY ORGANS. By K. B. HOFMANN and R. ULTZMANN. Translated by T. BARTON BRUNE, A.M., M.D., and H. HOLBROOK CURTIS, Ph.B. New York: D. Appleton & Co., 549 and 551 Broadway. 1879.

Original Lectures.

CLINICAL LECTURE ON DORSO-LUMBAR MENINGO-MYELITIS FROM TRAUMATISM.

DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

J. D——, 38 years of age, was a hale, strong man until six years ago, when a part of the roof of a rolling-mill fell on him, burying under it the lower half of his body. He was unconscious for fifteen minutes. No bones were fractured. He did not leave his bed for five months. For three months he could not move his legs, which were anæsthetic. He suffered with terrible pain of a deep, boring character, low down in the back. This was increased by every movement. He could, to a certain extent, escape the pain by holding his spinal column in one position, but any attempts at flexion or rotation of his trunk caused him almost unendurable suffering. The pain in the back had a tendency to radiate upward and outward, rather than downward; but two weeks after the reception of the injury he began to experience sharp darts, which came at irregular intervals, first in the right leg, and a week or two later in the left. One peculiar symptom at this time also was a feeling as if he was being drawn downward in the bed. For five weeks his bladder had to be emptied with the catheter, and for six months after this his urine almost constantly dribbled from him. His bowels were paralyzed, and so remained until within a year. Three months after the accident he began at times to suffer with cramps at different points in the legs. I cannot learn anything of positive value from him in regard to reflex disturbances, but it is altogether probable that diminution, rather than excess of reflex action, was the condition present, as the latter could not fail to have attracted his attention. Soon after he was injured he had a small bed-sore in the sacral region, but this was healed without difficulty, and he has never had any since. His toe-nails have grown less rapidly than they did when he was in good health. He says that his sexual desires and powers have, so far as he can tell, remained natural; he has had two children since he became paralyzed. He has never had any eye symptoms, nor attacks of faintness, palpitation, or dyspnœa.

During the past three or four years, so far as I can determine, the changes which have taken place in his condition have not been very striking. At present he shows evidences in his face of suffering and confinement—of the want of fresh air and exercise; but otherwise he is in "good form" from his waist upward. His mental faculties are probably as strong as they ever were. Sight, smell, taste, and hearing are normal. His upper extremities show nothing wrong; sensation in them is perfect; they are thin, but not atrophied. The spinal column shows no tenderness to pressure or percussion, and no painful response is elicited by the application of ice, hot water, or a strong faradic current. He can bend his body well forward, but scarcely at all to the right or left, or backward, owing to a want of mobility in the lower half of the spine.

Many of the points so far elicited have been negative, but now, as in the progress of our examination the lower half of the body is reached, you have signs and symptoms of the most positive kind. In the first place, you observe that while, speaking broadly, both legs are paralyzed, but the left is more helpless than the right. With the latter he can perform certain large movements, as lifting the whole limb several inches from the bed, and partially flexing the thigh on the pelvis. The left is absolutely powerless. He cannot execute abduction, adduction, flexion, extension, etc., with either of the feet. All the toes are strongly flexed downward, and require much force to straighten them. Both legs are much wasted, degenerative atrophy being very marked below the knees; and the muscles here fail to respond to strong faradic and galvanic currents. Both feet are cold and have a purple, livid look, the coldness and change of color extending up on the right nearly to the knee. The tendon-reflexes are utterly abolished. I can obtain no response from patella, quadriceps, or elsewhere.

Dr. Harrison reports that his urine is alkaline, that it has a specific gravity of 1020, and contains neither albumen nor sugar, but an abundance of phosphates.

The sensory phenomena presented by this case are quite remarkable. He has not had the feeling of a cord or band around his waist, but sometimes has had some such sensation in the upper part of his right thigh. With the æsthesiometer I proceed to examine the cutaneous sensibility, first of the trunk, and then of the lower extremities. As I pass downward, pricking him with the sharp points, and inquiring whether one or more points are felt, you will notice distinct boundary lines between regions in which sensation is preserved and those in which it is partially or totally lost. The anterior, posterior, and lateral aspects of the legs can be mapped out into curious areas, according to the presence, absence, or diminution of sensibility. On the anterior surface, on the right side, partial anæsthesia begins about half an inch below Poupart's ligament; near the middle of the thigh the anæsthesia becomes total, and so continues to the toes; on the left side, in front, slight anæsthesia begins again just below Poupart's ligament, and this becomes more marked, but not quite total, from the lower third of the thigh downward. Having the patient turned over, and examining the posterior surfaces, I find that on the right side anæsthesia is total below an irregular line, beginning about the coccygeal region and trending down and across to the outside of the limb, near the junction of the upper with the middle third of the thigh; on the left side, anæsthesia is partial in the same general area, becoming more decided as the limb is descended.

Retardation of the conduction of sensation is a symptom also well shown by this patient. I prick the left foot very sharply, and find that it requires from five to six seconds for him to appreciate the sensation; on the right side it takes two seconds and a half.

Finally, he is unable to distinguish between sponges dipped in hot and cold water, showing loss of the sensation of temperature.

Before discussing the nature and the treatment of this case, I will show you another.

This second case is so similar, in many of its features, to the one on which I have just been lecturing, that it will be sufficient to call your attention very rapidly to the prominent manifestations, only dwelling upon points which were not presented by the last patient, or which are of peculiar interest.

Ten months ago the patient, an Alsatian, aged

thirty-six years, in attempting to get off the platform of a street car, with a barrel of whiting, was severely injured in the small of his back, having been struck both by the car and barrel. His history and symptoms since the injury may be condensed, as follows: Severe pain in the back for four weeks, after this gradually disappearing; paralysis of bladder and bowels, with occasional threatenings of cystitis, but this held in check by treatment; at rare intervals headaches; his mind clear, but fretful and irritable; his near vision not as good as formerly, but no other ocular or facial symptoms, and no involvement of other special senses; upper extremities show no paralysis of sensation or motion, but a little general deficiency in strength, with each hand registering only about 70° on the dynamometer; lungs and heart normal; his pulse, just taken, 72, and regular; his spine slightly prominent and very rigid in the lumbar region, but no tenderness; tendon-reflexes in the lower extremities abolished, but reflex twitchings produced by irritation of the skin outside of the areas of anæsthesia below the waist; sexual desires and powers entirely lost; both legs paralyzed as regards motion, and much wasted, especially below the knees; electro-contractility greatly diminished, and in some of the lower groups of muscles absent; both knee-joints so loose that the caps can be moved from side to side without any trouble; has had a large sacro-coccygeal bed-sore, eight inches by three and a half in dimensions, and extending equally on both sides of the median line; several smaller sores at points exposed to pressure; his feet are cold and livid, the toes in flexion and feet in abduction; since the injury all the toe-nails, except of the two large toes, fell off and grew in again; the soles and edges of his feet are in a scaly condition; urine, examined by Dr. Heller, alkaline, specific gravity 1022, very slight trace of albumen, and no sugar.

The sensory condition, in this, as in the other case, is sufficiently interesting to call for a little more extended consideration.

On the anterior surface of the right lower extremity I can map out for you a region of total anæsthesia, extending to and including the feet and toes, and bounded above by a line which begins just above the root of the penis, passes outward about an inch, then downward to the middle region of the thigh, and again outward to its external border. On the left anterior aspect the anæsthesia begins an inch or two below the knee. Behind, the anæsthesia, on the right, is below a wavering line running from the neighborhood of the anterior superior spinous process of the ilium to the sacro-coccygeal region. On the back of the left thigh is a zone of anæsthesia of peculiar shape. It is broad above, reaching across the gluteal region at about the line of the coccyx, but narrowing in its descent, until near the popliteal space, when it widens again, so that below the knee the loss of sensibility becomes everywhere complete. You have thus a sort of trumpet-shaped anæsthetic area, occupying the middle posterior aspect of the left thigh. Both penis and scrotum are also anæsthetic. I am not able to demonstrate any retardation of sensory conduction.

Summarized, the most important and striking features presented in common by these two cases are as follows: History of severe injury to the middle and lower spine; this followed at once by pains in the back and limbs, spinal rigidity, anæsthesia, and paralysis of the lower limbs and of the bladder and bowels; the condition remaining is one of motor paralysis, wasting, contractures, depressed electro-contractility, coldness, and lividity, peculiar zones of anæsthesia, abolition of tendon-reflexes and of skin-reflexes in anæsthetic regions. This train of symptoms points to lesions chiefly of the lumbar enlargement of the cord. The painful sensation in the loins, and up the back and down the legs, the motor palsy and degenerative atrophy, the abolition of reflex excitability, and the peculiar anæsthesia, show destruction, more or less complete, of the part of the cord containing the nuclei of origin of the nerves which constitute the crural and sciatic distributions. In the case of dorsal lesion before you in the previous lecture—the lumbar enlargement below the seat of disease remaining comparatively healthy, and the vital connection of the cord with the nerves of the lower being unaffected—you saw enormously increased, instead of lost, reflex action, and but little wasting and sensory interference. You have in these cases an opposite condition.

If, in connection with the peculiar regions of cutaneous anæsthesia in these cases, you will study a schematic representation of the areas supplied by the cutaneous nerves—a diagram, for instance, such as may be found in "Henle's Anatomy"—you will discover a certain correspondence between the anæsthetic zones and the distributions of certain nerves. The lower limbs can be mapped into distinct districts, according to their nerve-supply, such, for example, as the ileo-inguinal, lumbo-inguinal, posterior cutaneous, crural, saphenous, etc., etc. My object just now is not to examine closely the question of nerve distribution in connection with the phenomena here exhibited—such an investigation would take several hours—but simply to direct attention to general facts.

Alkalinity of the urine, present in both of these cases, is a frequent symptom both of acute and chronic myelitis.

The two cases, although so similar in most respects, show some points of unlikeness, which depend, I think, upon the exact localization—of the lesions. The second patient has had some difficulty with his vision, particularly for near objects, his upper extremities show slight evidences of permanent weakness, and he suffers at times, a point which I have not before noted, from startling seizures, in which the chief symptoms are dyspnœa, rapid pulse, palpitations, nervous tremor, burning sensations passing upward from the abdomen, a feeling of soreness and stiffness in the eyes, and great anxiety—facts which lead to the conclusion that the upper dorsal and even the cervical cord must be in a condition not absolutely healthy, rendering it liable, under various exciting causes, to states of temporary congestion. One curious feature is the difference in the sexual condition of the two men—one, strange to say, considers that he is as well in this respect as he ever was; in the other the function is abolished. It is worthy of remark that in the latter case the district of anæsthesia includes both penis and scrotum.

According to Goltz, the reflex centre of erection is situated in the lumbar cord, a view which would seem to be called in question by the sexual history of the first patient.

As to the exact nature pathologically of these cases I will not have much to say. In both instances, probably, some direct compression or crushing of the lower portion of the cord took place, this being followed at first by an acute, and subsequently by a chronic, meningo-myelitis. More or less meningeal or myelitic hemorrhage may have occurred, and general concussion of the cord may also have had something to do with the production of the symptoms.

The prognosis, at the stage at which you now see

these cases, is, of course, so far as cure is concerned, utterly hopeless.

Much, however, can be and should be done to palliate their woes. It may be of service to you in the future to discuss here the general management of such cases.

In the first place, what should be the treatment immediately after the receipt of injuries such as those detailed? Absolute rest in bed it would be almost unnecessary to enjoin, as it would follow as a matter of course. If the patient should be suffering from shock, attention must be directed to this condition. After rallying from the first general effects of the injury, unless some special contraindication should be present, blood should be taken from along the spine by leeches or wet-cups. Even the use of the lancet might be advisable in robust individuals; but usually local bloodletting would best fulfil the indications. Cold, in the form of affusion, cold compresses, or ice-bags, might be subsequently applied, although the immediate effect of such treatment should be carefully watched, as, in a few instances, from some scarcely recognizable reason, the congestive or inflammatory condition appears to be made worse in this way; and such being the case, warm, or even hot applications, would be found to do more good. The diet should be restricted. Febrifuges should be used, if called for by the state of the circulation and temperature. The bromides of potassium, sodium, ammonium, or lithium might be given with advantage, to counteract hyperæmia and irritation, and the subcutaneous injection of ergotine, as recently recommended for sanguineous apoplexy, would be worthy of early trial. The bowels and bladder should be emptied, if necessary, by direct interference. If the use of the catheter is neglected, cystitis will sometimes rapidly develop. If fracture, crushing or dislocation of vertebræ has occurred, prompt surgical interference must be resorted to, and if this is successful, orthopædic apparatus might also come into play afterward. Even trepanning the vertebræ was performed by Cline as far back as 1814, and several successful operations have been reported; recoveries, however, in cases of this kind are far from being the rule.

While the spinal affection still remains acute or subacute, the old plan of giving calomel and opium is not unworthy of trial.

Sometimes, after appropriate and active treatment, great improvement will take place, and the patient may even approximately recover; usually, however, as in these cases, a permanent paraplegia remains. When the affection threatens to become or has become chronic, counter-irritation—sinapisms, blisters, setons, or the cautery—may be called upon to help stay the downward progress of the malady. If such measures are calculated to do good, they usually do it promptly. Iodide of potassium, with the view of causing absorption of meningeal or other exudation, should be thoroughly pushed; and mercury, by inunction or otherwise, can be employed for the same purpose. Direct galvanization of the spinal column can be allowed a persistent trial; ascending currents of moderate strength being given the preference. Hydropathic and thermo-hydropathic measures come to us, strongly recommended by high German authority, for ordinary chronic myelitis, and may be tried. Both faradization and galvanization of the paralyzed extremities may be employed from time to time to keep the muscles in their best possible condition, as you sometimes have in such cases—from want of use and care—wasting, deformity, etc., out of proportion to the disease of the membranes and cord. Massage and Swedish movements are also local means of great service to the paralyzed limbs. With the exception of the hydro-therapeutic measures, the various plans of treatment just detailed have been resorted to at different periods in the histories of our patients.

Special symptoms must be attended to as they arise. To relieve pain and spasm hypodermic injections of morphia and atropia, or suppositories of opium and belladonna will be found useful. Cystic irritation usually yields to a combination of bicarbonate of sodium, tincture of belladonna, and spirits of nitrous ether, conjoined with poultices, stupes, or sinapisms to the abdomen. In all cases of serious spinal disease a constant watch should be kept on the bladder, and the catheter promptly used if necessary. Sometimes, as the result of the constant dribbling of urine, an inflammatory condition of the glans penis and prepuce is set up, and requires special attention; cleanliness is of the utmost importance, and sedative salves and lotions may be used, or a catheter may be kept in the bladder for a time. Bed sores must be carefully guarded against; when present, and particularly if extensive, I always resort to the treatment by means of galvanic plates. The large sacro-coccygeal sore, from which the second case suffered, was quickly healed in this way. The startling paroxysms of dyspnœa, palpitations, anxiety, etc., which the second patient occasionally experiences, are similar to the seizures of which I spoke, when lecturing on a case of cervical disease, and indicate involvement of respiratory and cardiac tracts or centres. Changing the position of the patient, prompt cupping, the temporary use of respiratory and circulatory stimulants, such as belladonna, digitalis, and carbonate of ammonia, and the subsequent administration of the bromides, are the measures to which I have already called attention.

Of the use of such drugs as ergot, belladonna, and strychnia, as special remedies for myelitis, I shall have more to say in connection with non-traumatic cases of a less hopeless character.

Every effort should, of course, be made to promote the nutrition of the cord and of the individual, by the use of such remedies as tincture of the chloride of iron, cod-liver oil, phosphorus and arsenic. The patients should not be kept in bed all the time. In proper weather they should be sent into the open air in invalid chairs as often as possible.

Fucusine as a Therapeutic Agent.—Fucusine has been claimed to be of much value in Bright's disease. Dieulafoy reports a series of cases to the *Gazette Hebdomadaire*, from which he concludes its action in this disease to be very slight, occasionally, however, producing some amelioration of symptoms. Its value in general is not great.

Surgical Treatment of Anasarca.—To avoid the inflammation and erysipelas that occasionally follow the puncturing of œdematous limbs, M. Wickens uses the following procedure: After having well oiled the limb, he rapidly makes twenty or thirty punctures with a large needle, the point just penetrating to the subcutaneous tissue. This done, he places over the punctures sponges previously soaked in a solution of salicylic acid. The sponges are to be removed, squeezed, and soaked in salicylic acid again every two or three hours. In this way several pints of fluid will drain away in twenty-four hours. In seven or eight days the wounds will be healed.—*Belgian Archives of Medicine.*

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEO. M. BEARD, A.M., M.D.,

OF NEW YORK.

[Continued from p. 555, June 14, 1879.]

III.

Since the publication of these series of papers was begun, some of the most radical of the propositions and views advanced in them—which to the profession seemed most striking and revolutionary—have received indorsement from an entirely independent source.

Mr. Jonathan Hutchinson, of London, in the *Medical Times and Gazette* for June 21 and August 23, 1879, in the course of a lecture on "Hyperæsthesia of the Eye," traverses part of the territory to which these papers are devoted. Mr. Hutchinson is both an original observer and a skilful surgeon and ophthalmologist, and he approaches the subject from the side of surgery and ophthalmology, as I am here endeavoring to approach it on the side of neurology. After stating that there are quite a number of cases of painful eye where there is aching on reading or working, where daylight annoys and artificial light is very hard to bear, and where, when complete rest is secured and strong light avoided, the aching is relieved, he states "that on examination with the ophthalmoscope nothing abnormal is found, excepting that the retinal veins are always full, in some cases there is refraction and some weakness of the internal recti, but only in a small minority of cases. With very careful examination we make a diagnosis of hypermetropia, myopia, or astigmatism, yet glasses carefully selected will give the patient little or no relief. Oftentimes, indeed, the patient complains that the glasses hurt his eyes. Tinted glasses are better, and are of some assistance."

In regard to these cases, Mr. Hutchinson remarks: First, "That these symptoms may come and go suddenly."

Secondly, "That they are frequently associated with headache and various other nervous symptoms, and are quite frequently found in students, professional and literary men, and, in general, brain-workers."

Thirdly, "That they are sometimes closely related to nocturnal emissions and sexual excesses."

Fourthly, "That in pathology this hyperæsthesia of the eye is quite analogous to spinal irritation and irritable ovary which are seen in women, and irritable testes which are seen in men, and irritability of the prostate, the coccyx, the sphincter ani, or bladder."

This venous congestion is about all that is revealed to the senses. These facts and these conclusions from facts, so far as they go, are precisely those which, during the past ten years, I have been advocating in various articles on neurasthenia and allied affections, and which have been enforced through all this series of papers.

There has been a disposition among all the ophthalmologists with whose writings I am familiar, or with whom I have conversed on these themes, to look at this form of eye-trouble more and more from the neurological standpoint; but, so far as known, no ophthalmologist or surgeon has formulated the above propositions.

Mr. Hutchinson prefers the term "hyperæsthesia" to the ordinary term retinal hyperæsthesia, for the very just reason that the latter term, retinal hyperæsthesia, does not cover the whole ground.

I prefer the term neurasthenic asthenopia to cover these symptoms, since it expresses accurately and exhaustively, and in a convenient form the real condition, and logically includes all the different varieties and sub-varieties of which Mr. Hutchinson speaks, and to which he applies the term hyperæsthesia of the eye, irritable eye, or eye-ache.

Mr. Hutchinson fully understands the dependence of these eye-symptoms (neurasthenic asthenopia) on general neurasthenia, and in regard to pathology takes the view which I published in 1868, that the real difficulty is not so much in the circulation as in the innervation, the passive congestion so often found in these states being a result of the neurasthenia, or, as he expresses it, lack of tone. This pathology is correct as applied to all neurasthenic symptoms whatsoever, and the eye is the best organ wherein to study this side of the nervous system, for the reason of the unequalled precision of the methods of examination.

If we could study spinal irritation, or cerebral irritation, or irritable testes, or breast, or ovaries, or irritability of a peripheral nerve, as in some forms of writers' cramp; or of the stomach in nervous dyspepsia; or of the auditory nerve in many cases of tinnitus; or of the prostatic urethra in seminal emissions, in spermatorrhœa—with the same instrumental precision and completeness, it is as absolutely sure as any fact in science can be, that we should find a condition quite analogous to that described by Mr. Hutchinson in neurasthenic asthenopia.

Mr. Hutchinson reports the following case:

"Mr. T——, our patient, was florid and healthy-looking, and his living depended upon his profession, and he was not in the least likely to feign or exaggerate his malady. To what cause could we attribute his hyperæsthesia? Was he out of tone, and in any respect in ill-health? He said that he could eat well, slept well at night, and was not aware of any degree of failure of health. He did not suffer from cold feet, but I noticed that his hands were mottled and somewhat livid from feeble circulation. There was something in the tone of his voice which did not suggest vigor. I found that he had been married three years, and that his wife had never conceived.

"The date of his marriage coincided with that which he assigned for the failure of his eyes. They had been, he recollected, a little irritable in the gaslight, even before his marriage; but chiefly had failed after it. I asked him if he had any suspicion that married life had not suited his health, and he at once replied that he all along suspected that the failure of his eyes had been connected with it. Yet he did not admit that in any other respects he had experienced any very noticeable ill results. He had had neither headache, backache, nor lassitude. It appeared that prior to marriage he had led an absolutely continent life, and that he had always been a total abstainer from stimulants.

"You will notice how closely in these details his narrative fits the preceding one. To complete the case, I must tell you that he never smoked, that he was liable to palpitation of the heart, and that once in his life he had fainted away.

"It is scarcely necessary to say what I recommended in the way of treatment. He was to take wine regularly, to go away from his wife for a month, and to use sea-bathing, and on his return accustom himself to extreme moderation in sexual matters.

"In considering such cases as these, one cannot but be struck with the fact that there is exceedingly little to be proved in the way of defective tone. Had the eyes remained good, neither of these gentlemen (two cases are reported) would have recognized any departure from good health."

In regard to this case of Mr. Hutchinson, I will remark, first, that the course of treatment he recommends was not by any means adapted for all cases, nor would it cure, or even permanently relieve all cases. While it is very possible that the general diagnosis of the cause was correct, that sexual excess was the source of the weakness of the eyes, yet cases of this kind are often treated with months and years of rest, without any permanent benefit. Then, again, they will not all bear wine, even in small quantities, and the majority of them will not bear tobacco well.

These cases, as has been shown in these papers, may be treated, even while they are at their work, without losing a day, oftentimes more successfully than by most protracted rest. This was clearly shown in the case reported in the second chapter of the series, where rest had failed, and the glasses and ophthalmological treatment had failed; while constant general sedative and tonic treatment, combined with local treatment, thoroughly succeeded, even while the patient was at work, using his eyes many hours every day.

Rest is a remedy that is sometimes overdone. It is a good remedy, but very often utterly fails of its purpose.

Secondly, Mr. Hutchinson was probably in error in regarding the eye-symptoms as the only symptom from which this patient suffered.

This side of the nervous system—neurasthenia both of the general and sexual varieties—has now been studied long enough and closely enough to make it possible for us to state with entire certainty that neurasthenic asthenopia never or rarely exists entirely alone. In cases of this kind, careful study in complete details is almost sure to reveal more or less preceding or accompanying symptoms of neurasthenia. These symptoms are not familiar to the profession, because the profession do not study these cases, but dismiss them as victims of pathophobia.

It is a satisfaction that, after so long a struggle and waiting, and delay and misconception, so good a neurologist as Erb in Germany, and so able an ophthalmologist as Hutchinson in England, are entering upon the study of some of the phases of this most interesting and most frequent disease of modern times.

Case XIII.—In the fall of 1878 a gentleman consulted me for the following symptoms. There were frequent attacks of intense pain and heat behind the ears. These attacks were especially severe after eating dinner and at night. There was oftentimes a feeling of fulness in the head, and decided evidence of cerebral congestion; sleep was inconstant and treacherous; he was easily kept awake by mental excitement, or by expectation of any responsibility to be incurred. A symptom that distressed him much was mental irritability. He was annoyed excessively, and out of all reason, by the play of children, or by any disturbances or unpleasant things that might arise in his family or business relations. Another evidence of his nervous susceptibility was, that he could not play a game of cards or billiards without getting nervous and having palpitation of the heart. Yet another evidence still of nervous susceptibility was that he could not bear the touch of flannel to the skin; the very thought of it would give rise to creeping sensations on the spine. An interesting nervous symptom in this case was that oftentimes, in attempting to make water under circumstances of haste or excitement, as when there were persons standing behind him at a public urinal, wishing his place, there would be complete temporary retention.

Asthenopia was also a very distressing symptom; reading fine type made his eyes ache, so likewise did reading at night, or on the cars, or writing during the day. His occupation was that of a clerk in a banking house. The pulse was frequently very rapid, sometimes up to 110, to 120, rarely approaching the normal standard. At least in the times that I first saw him, so susceptible was his heart to tobacco, that very little smoking would excite his pulse and give him a sleepless night. The tongue was white and furred, and he was liable to attacks of indigestion, especially after dinner. This patient was a strong, muscular Englishman, florid in appearance, and capable of walking far and long, and enduring much physical exertion of almost any kind. And yet this man, whose appearance suggested perfect health and unusual vigor, was a typical case of cerebrasthenia or brain-exhaustion. There were no evidences whatever of myelasthenia or spine-exhaustion. There was no hypochondria in any degree, no tendency to worry over symptoms, and little or no mental depression. The history of this case bore the test of frequent cross-examination and close study. The questions to be decided in his case were: First, the cause of this cerebrasthenia, or this nervous susceptibility associated therewith in this strong Englishman; secondly, what form of asthenopia was he suffering from, and what relation had the asthenopia to the nervous symptoms in their general aspect? Was it a cause or effect, or both, of the exhaustion?

The history of the case, the results of the treatment, answered clearly both of these questions. The patient had masturbated at the age of fourteen or sixteen. After the abandonment of the habit there had been seminal emissions. For five years he had been married. He usually had intercourse but once a week. In almost all cases intercourse thus rare was followed by sleeplessness and heightening of all his nervous symptoms. Examination of the parts showed a fair development, but a prepuce somewhat elongated and redundant. It, however, was pushed back behind the gland and kept back, by my advice, with a little effort on his part. The lips of the meatus were congested, and suggested disease of a portion of the urethra. The urethra was also hyperæsthetic. There was, however, no difficulty in urination, and had never been, and no stricture, and had never been any gonorrhœa. I felt quite confident from the history of the case, and especially from the fact that the difficulty with the eyes was inconstant, coming and going with the existing causes, that the trouble was of a neurasthenic character, and that expert examination would prove it. Dr. Roosa saw the case, studied it carefully, and found, as he stated, nothing save a slight retinal congestion to account for these symptoms. Colored glasses were, however, recommended and used.

The results of the treatment have confirmed both this general and special diagnosis. The patient was at first treated generally, without any reference to the sexual organs, and with a certain degree of improvement of some of the symptoms. But nothing permanent was gained in many of the symptoms until *local* treatment was employed, including cooling catheters, cooling rectal electrodes, cup-sounds, with various ointments, internal galvanization and faradization, and electro-puncture. Other methods of

local treatment employed in this case were, injections in the urethra of bismuth water and witch-hazel, the local application of iodoform, and suppositories of various combinations. The effect of this local treatment was of a most satisfactory character. Even where no general treatment was employed, every symptom improved, and a majority of the symptoms have disappeared almost entirely.

Case XIV.—I have now under observation a gentleman over fifty years of age, whose prostate gland appears to be in a condition analogous to that of hyperæsthesia of the eye. He had been examined, before coming to me, by a distinguished surgeon, who could find no trouble with the prostate gland; and yet, so irritable is he, that a walk of a mile or two will cause great pain in the region of the perineum and in the lower part of the back.

An ophthalmologist of reputation had carefully examined his eyes, but could find nothing the matter with them, and yet for years they had caused him intense suffering, making it difficult for him to read or use them as he desired. It is possible that the prostate gland and the eyes are in the same pathological state: irritable and painful; neurasthenic, congested at times without being inflamed or enlarged; but none the less diseased because we cannot see the disease either with our eyes or the imperfect means of supplementing our visual deficiencies. This man had a nervous inheritance, began masturbating at puberty, abandoned the habit at the age of eighteen or nineteen, worked hard in business, almost always had cold feet and hands, married at twenty-seven, had involuntary emissions after his marriage—a case clearly enough a type of those referred to by Mr. Hutchinson, and to the study of which this series of articles is devoted.

A number of times in the course of these articles it has been asserted that functional nervous diseases are hardest to cure in the strong, phlegmatic, and vigorous, other conditions being the same. It has also been repeated again and again that irritation, abuse of the sexual organs in an unnatural or natural way, may have two very different effects—may be either local or general. When the effects are general and constitutional we have neurasthenic asthenopia, as before described, in all its forms, morbid fears in their different varieties, sweating hands and feet, headache, backache, myelasthenia, (exhaustion of the spine), with or without the spinal irritation, nervous dyspepsia, pain on pressure of the vertex, and so on, with a long row of functional nervous symptoms that make up the picture of neurasthenia.

When the effects of sexual excess are local only, we have impotence in its different grades, sometimes in its worst grade, with the symptoms of prostatic congestion, lack of desire and lack of power, premature emissions, coldness of the parts, while at the same time the constitution in general is unaffected. The man is as strong for his muscular or mental work as ever.

Case XV.—The following case shows also how sexual debility may exist in persons of great muscular strength. A gentleman thirty-seven years of age, an athlete, powerful, and distinguished in the gymnasium, large frame, though not very tall, consulted me two or three years ago for symptoms of sexual debility, which he feared might prevent his marriage. His history was that he began masturbation at the age of fourteen, kept up the habit off and on for many years, and then he was tormented with frequent erections, though the emissions were only about twice a month. This strong, healthy man was so troubled with palpitation, that, as he said, sitting in church he would shake the pew with the beating of his heart. After a course of sedative and tonic treatment, he at last got married, though with trembling and fear.

The day following his marriage he came to me in great distress, representing that he had made a great mistake, inasmuch as he was unable to consummate his marriage completely; he was told to wait for time to make the matter right; at the same time was treated with sedatives and tonics, and in a few days he reported a satisfactory result.

There had been in his case at one time symptoms connected with the prostatic portion of the urethra, for which he was treated with belladonna, ergot, and very small doses of cantharides.

The chief fact of interest in his case was the coexistency of this local debility of a certain grade with not only great, but enormous muscular strength. The heart also in his case was more like a delicate woman's than that of a strong man, and I see similar case continually.

I insist upon this fact, and repeat it again and again, because it seems to be new to the profession, although it has so often been referred to; it is an observation of great importance and scientific value in diagnosis and therapeutics.

The following case illustrates this latter type, where the excess makes itself felt locally, the patient remaining all the while strong.

The case also represents the satisfactory result of treatment.

Case XVI.—A young man, thirty-three years of age, began the habit of self-abuse at the age of seventeen; after three years he stopped; then came involuntary emissions. When he consulted me, in the fall of 1878, he had the following symptoms: flushing of the face, anthropophobia (fear of society), mental depression. His anthropophobia was so profound that at times, in going into company, his heart would beat and he would feel weak in his knees. These were all the general symptoms with which he suffered.

On the other hand, he had a good pulse and an unusually strong stomach, firm muscles, and a capacity for severe and protracted muscular toil in his trade. Examination of the parts showed there was no stricture and no phimosis, although at one time he had the gonorrhœa. There were, however, clear evidences of sexual debility; there had been real aspermatism; there had been erections without any emissions to follow; at times he was utterly incapable of any satisfactory intercourse.

For several months before he consulted me he had no involuntary emissions; he was much distressed in regard to himself; especially did he want to get married. I treated him a number of months by electricity, by the methods described, using general and local applications, the electrolysis of the prostatic urethra, urethral electrode and the cooling and heating catheters, wire-brush electrode, counter-irritation of the perineum and the lumbar spine, the injection of liquor bismuthi, also the local application of iodoform.

There was no hyperæsthesia of the urethra in any part, a condition we so often see in these symptoms; he had passed through that stage. There was no difficulty in using whatever local treatment we wished. Last spring he had so far improved that I consented to his marriage. He followed the advice given, was married, and has had no difficulty in fulfilling his marital duties; the anthropophobia and other symptoms disappeared long since.

In the above case there was illustrated the very marked and very interesting psychological fact that

coitus may be unsatisfactory with a stranger even when there may be no disease whatever. Before his marriage he made an experiment of that kind with a stranger, and failed. This failure, as I told him, was psychical rather than physical, for after his marriage, which soon took place, there was no difficulty.

Case XVII.—A gentleman, æt. 37, consulted me for general debility that had existed for very many years. At the age of fifteen he formed the habit of self-abuse; kept it up for some time, and subsequently went with women occasionally; but at no time, according to his statement, had there been full satisfaction; the emissions came too soon, and intercourse was possible only at long intervals. On the examination of the parts, the right testicle was found quite irritable, a condition very common. In this patient, on pressure, considerable pain was experienced; the right testicle was somewhat longer than the other; the prepuce was somewhat elongated. He was a man of large size, of great physical strength. He had very few of the nervous symptoms that so often accompany cases of this sort when there is a history such as he gave. The conjunctiva was somewhat congested, but the eyes were not sensitive. There was a degree of anthropophobia. The prepuce was also extended over the glans. He had been treated surgically, but not with any satisfaction, by means of sounds. Examination of the urine showed no albumen or sugar or spermatozoa, but an abundance of the oxalate of lime and of uric acid. Here was a case where there was a local debility, not of an absolute character, however, but of long standing and of some importance in a man of immense size and vigor, capable of much physical endurance. Every other function was well performed: the appetite was good, the digestion was good, the bowels gave no trouble, he was not usually depressed, his memory was not weakened, there was no palmar hyperidrosis so often seen in these cases, no backache, or back pain of any kind; the patient was enjoined to abstain from sexual intercourse for a while, and was treated by a combination of ergot and belladonna, by the mineral acids, by internal faradization, by cooling and heating catheters. The results in all respects were satisfactory, so that in a few weeks he was married.

I have now under care a gentleman who, with other nervous symptoms dependent on true spermatorrhœa, is annoyed by attacks of irritability of the eyes, of a most indefinite but very disagreeable character, and which compel him to rub and press upon them. A well-known oculist failed to find anything to explain the symptom. The attacks come and go in a moment. That they depend directly on the diseased prostatic urethra is beyond question, and the treatment is ordered in accordance with that diagnosis.

ANÆSTHESIA AND HOT WATER IN THE TREATMENT OF TORTICOLLIS.

By SAMUEL C. BUSEY, M.D.,

PROF. OF THE THEORY AND PRACTICE OF MEDICINE, MED. DEPARTMENT UNIVERSITY OF GEORGETOWN, WASHINGTON, D. C.

In January last (1879) a young lady, aged 17, after a prolonged exposure to severe cold, was seized with stiffness of the neck, with great soreness extending from the occiput downward over the back of the neck and upper posterior surface of the shoulders. Very slight movements of the head produced acute pain over the entire region of tenderness, but most intense along the occipital and nuchal attachments of the trapezius muscles. She was subjected to treatment for about six weeks without any marked benefit. In March, when I first saw her, the soreness and pain were mainly located in the region of the left trapezius, and limited to that portion extending from its origin from the occipital bone down to its attachment to the spine of the left scapula. The cervical portion was very tender, felt hardened, and was thicker and larger than the corresponding part of the right muscle. Her head was as fixed as if firmly fastened in an immovable apparatus. The chin was carried toward the right and the occiput was depressed backward and to the left. The left shoulder was elevated. Contracture and rigidity of the neck part of the muscle was manifest. Pressure along the cervical portion of the spinal column, between the borders of the two muscles, gave great pain, and every effort, however slight, to move the head, either laterally or antero-posteriorly, produced the most intense suffering. The young lady was up and about the house, but sat and walked as if her head was immovably fixed in one position. When attempting to turn the head to the right or left, the whole trunk moved, and when stooping or rising the head was retained in the same relative position to the body. The same immobility of the head was maintained during sleep.

Internal medication and diverse local applications proved futile. The parents would not permit the hypodermic use of sulphate of morphia, and the young lady would neither submit to enforced movements of the head nor massage of the muscles. Electricity was faithfully and patiently tried for several weeks without any substantial improvement, and, finally, the case was relegated to time, hot weather, and expectancy. But these conservative expedients, like the preceding medicaments, proved unavailing, and I was recalled to the case July 2d. Her condition was but little, if any changed. The mother insisted that the displacement of the chin toward the right had increased.

At this consultation I suggested one of the three following methods of treatment:

The hypodermic use of the sulphate of morphia (which I have successfully employed in recent cases of lumbago and torticollis), and free movement of the affected muscles during the insensibility to pain.

The operation of Prof. Annandale: section of the left spinal accessory nerve, which I did not urge for various reasons, but mainly because I believed the trouble to be a rheumatoid affection of the muscle, and not, as in Prof. Annandale's case, a nervous disturbance.*

And lastly, the production of anæsthesia with ether, and enforced movement of the head during the narcosis.

The last was preferred by myself and selected by the parents, though sternly opposed by the patient. Several days after, with the assistance of Dr. Ashford, the young lady was completely etherized. During the insensibility I grasped the head with both hands and continuously rotated it through all of its normal motions, carrying the movements to the utmost limit of rotation. This operation was continued for ten minutes, and then the patient was left to sleep.

At my visit the next day she met me with the declaration that her neck was well. Her head was straight, chin in the median line, antero-posterior mobility quite restored and easy, but lateral rotation was somewhat painful when carried to extreme limits, and less free than natural. With directions to use friction or massage several times a day, I left the patient.

* London Lancet, April 19, 1879.

Several days elapsed before my next visit, and then it was manifest that the lateral rotatory movements were less free and more painful. I suggested a second trial of anæsthesia, but no argument could induce the patient to submit. In this dilemma I advised the use of hot water. An india-rubber hot-water bottle was secured, which, when filled with water as hot as could be borne, was firmly applied and secured over the affected muscle, and kept in position until the water cooled. This application was repeated daily during several weeks, with continuous improvement, and when last seen the cure seemed nearly complete.

I believe the repetition of the enforced movement during anæsthesia would have accomplished all that could have been expected, without any additional treatment, though it is not improbable that some soreness of the affected muscle would have remained for a brief period.

This method is to be preferred to either of the others suggested. In acute cases a single injection of the sulphate of morphia may be sufficient; but in cases of several months' duration, which are usually very intractable, the necessary and frequent repetition might produce unpleasant complications. Complete insensibility to pain produced by etherization is less dangerous, shorter in duration, and freer from unpleasant disturbances than morphia narcotism to an equal degree. In cases of permanent contracture of single or groups of muscles, it is not probable that either agent would prove valuable as a remedy; yet etherization or chloroform narcosis is the ordinary resource in cases of muscular contracture and rigidity, not, however, as curative agencies, but to secure insensibility during the performance of some necessary operation. In this case the enforced movement of the head was the object sought to be accomplished.

Section of the spinal accessory nerve has been performed in four cases of spasmodic wry-neck, with two successes. In Prof. Annandale's and one of De Morgan's cases, which were identical, the result was successful. In both cases the condition was neurotic and not, as in the case here reported, dependent on inflammatory changes of a rheumatoid character. To these different conditions may be due the varying success of section of the spinal accessory nerve.

In these cases of torticollis rheumaticus of long standing, the power and movements of the affected muscles, impaired in the beginning by the inflammatory changes and consequent pain, are, from long continued disuse, either totally lost or so perverted as to cause ugly and grotesque deformities. Restoration of the function of the muscles constitutes the essential factor in the successful treatment of the cases. This cannot often be accomplished without the aid of either anæsthetics or analgesics. Whatever may be the agent employed to secure insensibility to pain during the enforced exercise of the muscles, the changes which may have taken place in the muscular structure will demand subsequent treatment before the impaired mobility and power are completely restored.

The Alumni Association of the Bellevue Hospital Medical College holds its annual meeting and reunion at Delmonico's, Fifth Avenue and 26th Street, on Tuesday, September 30, 1879, at 8 P.M. Alumni who propose attending the meeting will please notify Lewis H. Savre, M.D., Chairman Committee of Arrangements, 285 Fifth Avenue, before that date. The price of tickets has been fixed at two dollars.

FORCIBLE DILATATION OF THE SPHINCTER PALPEBRARUM AS A MEANS OF TREATMENT IN OBSTINATE CASES OF BLEPHAROSPASM.

By HENRY G. CORNWELL, M.D.,

YOUNGSTOWN, OHIO.

During a two years' service as house-surgeon, Brooklyn Eye and Ear Hospital, a large number of cases came under observation where there existed, in connection with the various forms of corneal and conjunctival disease commonly found among the squalid children of large cities, a blepharospasm of most obstinate and distressing character. In some of these cases this spasm of the lids, as is frequently noticed, was of more serious import, so far as affecting the health and exercise of the patient was concerned, than the disease from which it had its origin. In conjunction with a rigorous diet, daily sponge-baths, tonics, and the usual local treatment of the corneal or lid disease, the internal administration of conium and belladonna was prescribed, counter-irritants were used, soothing embrocations to the external surface of the lids, the douche and plunge-baths were resorted to—all of which proved to be of little effect in controlling the spasm.

These unsatisfactory results led the writer to employ forcible stretching of the orbicularis. The cue to this plan of treatment was obtained in the observance of the fact, that in spasms of the sphincter ani the result of fistulæ and fissures in this region of the body, and in affections of the female genital and urinary passages—vaginismus, etc.,—such treatment proved to be of value. Forced separation of the lids was thereafter employed as a preliminary step to the ordinary local treatment, by placing the thumbs on their external surface and drawing them as far apart as was possible. Among the indoor patients this treatment was sedulously carried out, the lids were separated in this way several times a day, in all cases where the affection was found present. In granular lids its good effect was particularly noticed. Recently in private practice this plan of treatment has been more fully carried out. In some cases chloroform was given and the lids fixed widely apart by means of the spring speculum, when the patient was permitted to return to consciousness and the instrument removed. Iced cloths appeared to have a good effect when applied to the exposed globes as a local sedative. Atropinized castor oil was found to be of much benefit in irritable ulcerative conditions of the cornea, when used at such times.

This plan of treatment has proved to be, in private cases, of very marked value. In several the spasm was of most aggravating chronicity, and the treatment ordinarily resorted to in such instances was without good effect. In the following two cases immediate improvement was very noticeable:

Jennie D——, æt. 14, of Irish parents, a resident of this city, consulted the writer Sept. 29, 1878. At the time of her first appearance her eyes were heavily bandaged and her head covered with a thick veil. An examination could only be made in a room lighted artificially. By means of lid elevators the spasm of the sphincter was overcome and the globes inspected. Right eye exhibited small central ulcer of the cornea, to which a leash of several vessels was directed from the limbus conjunctivæ. Marked circumcorneal injection, and severe ciliary pain. Left eye: peripheral ulcer on the temporal side of the cornea; injec-

tion of scleral and conjunctival vessels, with slight pain.

The accompanying blepharospasm was very intense; every effort on the part of the patient to open the eyes being without effect. She was very nervous and pallid from long confinement in a darkened chamber.

Treatment.—The use of atropia (4 gr. sol.), cold local baths of marsh-mallows and borax; tr. ferri chlor., after meals; daily sponge-baths, regulation of diet, etc. This treatment was strictly adhered to for three weeks without there being any manifest change in the corneal disease or the associated orbicular spasm. Oct. 20th, the patient was chloroformed, a stout spring speculum introduced, and the lids of each eye separated to their widest extent. Ice water was then permitted to drip into the eyes, and atropinized castor oil introduced. The chloroform was withdrawn after five minutes, and the patient allowed to recover from its effect. The specula were permitted to remain for a few moments in order that the orbicularis might be effectually stretched in endeavoring to overcome the resistance which the instrument offered when efforts were made to close the eyes. Two days later the patient returned, able to open the eyes fully and without much effort. The lids were ordered to be stretched apart several times a day by friends at home, and, in conjunction with the treatment originally followed, the case passed on to a favorable termination.

John H——, æt. 13, of Irish parentage, a resident of Niles, O., came under observation July, 1878. An examination obtained after some difficulty, on account of the extreme photophobia and spasm of the lids present, revealed chronic granular lids, slight pannus, and incurvation of lids—both eyes. His general health was much impaired, appetite poor, and skin blanched from confinement in a dark and dirty apartment for several weeks.

Treatment.—A canthoplasty was urged, to which operation his parents would not submit him. His friends were then directed to separate the eyelids to their widest extent several times a day, by means of the thumbs on their external surface. Atropia sol. (4 grs. to ℥i.), and sulphate of copper used daily, general baths, coquilles, and fresh air, together with syr. ferri iodidi, and laxatives of syr. rhei and sodæ bicarb., were prescribed.

At the time of his next visit, four days later, the patient was much improved, the eyelids were more under control, and less photophobia was present. Thinking the improvement was chiefly due to the sedative action of the atropia, as an experiment the speculum was introduced and the lids of each eye fixed apart for ten minutes. Immediately upon the removal of the instruments the patient could open the eyes readily, which he continued to be able to do, and the case went on rapidly to convalescence.

These two cases taken from a number, illustrate the good effect which forced separation of the lids had in spasm of the sphincter palpebrarum, and its secondary good effect upon the nutrition of the eyeball in many of its diseases occurring during childhood.

The favorable effect of this method of treatment is perhaps due to the combined influence of the forcible and continued stretching, thus breaking up the spasmodic tendency, and to the hyperæsthesia of the ocular branch of the trifacial nerves becoming obtunded by exposure to the air.

Since the appearance of my first paper on this subject (*Observations on the Treatment of Blepharospasm*.—reprinted from Ohio *Med. and Surg. Journal*, Dec., 1878—my attention has been directed to a reprint from the transactions of the American Ophthalmological Society, 1878—"Cases of Ophthalmic Disease in which forced Exposure to Light and Air was Salutary," by C. R. Agnew, M.D., New York, wherein this plan of treatment is introduced in the management of those affections of the eyes where extreme photophobia and blepharospasm are prominent symptoms. After relating the history of a case, Dr. Agnew says: "It is, we think, fair to suppose that the main agency in the cure was the forcible exposure of the badly nourished eye-tissues to the action of the light and air. The influx of light and contact of air would naturally awaken the dormant or perverted energies of the tissues, and quicken the reparative action. It may be said that the repeated effect of the ether would tend to neutralize morbid sensibility, and harmonize the reparative forces. We are aware of the possibility of such an agency, and would not exclude it entirely in this case. Indeed, we have often seen, in cases of phlyctenular disease, where extreme photophobia had induced the use of an anæsthetic to facilitate the examination of the offending eye, the distressing symptoms greatly lessened on the recovery of the patient from the anæsthesia. But in this case the patient had had ether employed and a canthotomy done without benefit, and subsequently got well as described. Moreover, in other instances, in older subjects, we have tried the method of forcible exposure, without the intervention of anæsthetics, and with good effect, enough to make us trust it in otherwise incorrigible cases."

A CASE OF CHRONIC DYSENTERY TREATED WITH OPIUM, RESIN, AND IPECAC.

By WILLIAM HAMILTON NAYLOR, M.D.,

OF THE BRITISH CONSULATE GENERAL, NEW YORK.

W. S——, æt. 38, able seaman on the British ship "Dryad," came under my care, suffering from chronic dysentery of some thirteen years' standing. The history he gave was as follows: He had been a sailor for some eighteen or twenty years, and had first contracted the disease while lying in Calcutta during the rainy season, where he received hospital treatment; had also been in hospitals in Bombay, Hong Kong, and other ports, but had never been thoroughly cured—in fact, he was what is called in marine vernacular an "hospital sailor."

When I first saw him he was in his "bunk," unable hardly to walk; had from twelve to thirteen passages a day of blood and slime; tormina and tenesmus were prominent; emaciation marked; appetite almost gone; pulse slow and feeble; tongue furred; excessive thirst; countenance denoting great anxiety and prostration; had cold, clammy sweat; was suffering from anæsthesia of legs and feet, and pins and needles in thighs.

I immediately ordered tr. opii, gtt. xxx., to be followed with pulv. ipecac, grs. xx., and hot fomentations, as recommended by Maclean, and ice to allay thirst. Twenty-four hours afterward the patient was seen, when the passages had not been controlled, and he stated that the medicine had made him "heave up." I again prescribed opium and ipecac, but reduced the latter by five grains.

The patient was seen the following day, when he stated that the medicine had not made him sick, but that there was no abatement of the dejections, and that his legs were feeling "hard." I again prescribed

as before, but in addition ordered powdered resin, in teaspoonful doses, every four hours. When I next saw the patient he had much improved, the number of passages had been reduced to about nine, and he did not feel so "tired;" his appetite had also slightly improved.

Directed that the treatment be continued, and ordered milk and lime-water to quench thirst.

From this time (four days after seeing patient, and two from date of ordering the resin) my man improved, the formication and anæsthesia rapidly disappearing, and the dejections falling from about twelve (when I first saw him) to about four per diem.

The man was finally lost sight of, having left the ship immediately he could get around.

This case presents some points of interest; firstly, as to the number of passages daily (and the man's statement was verified by the captain); secondly, by the symptoms of incipient dysenteric paraplegia; and, thirdly, by the marked improvement following the combination of Maclean's prescription with the resin.

In my practice, which is largely confined to seafaring men, and where I have unrivalled opportunities of seeing such cases, I have upon numerous occasions found marked and almost wonderful results accrue from the administration of resin.

This remedy is so simple that at times I experience much difficulty in making sailors take it, but in every instance where it has been steadily taken for four or five days, I have invariably found it beneficial; in fact, my rule is to give it solely in chronic dysentery, and I have yet to find a remedy which will in so short a period produce such satisfactory results, and I have no doubt had this man continued under my care for a short time longer, he would have been much better than he had been for years.

I might say, in conclusion, that the majority of such men are what is generally known as "hard cases," and go on periodical sprees in each port they go to, get wet, and bring all their symptoms back with renewed vigor. Of course, one gets little satisfaction from treating such patients, as it is only in rare cases our instructions are carefully followed out.

233 West Thirty ninth Street.

Reports of Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

Notes of Practice and Peculiarities of Treatment.

(Prepared for The Medical Record.)

PELVIC PERITONITIS AND CELLULITIS.

If the attack cannot be aborted the treatment is taken up regularly, the two most important indications being (1) to stop the pain, and (2) to prevent the formation of pus. With these ends in view full doses of opium and of the bromide of potassium are given together with from thirty to forty grains of quinia daily. The abdomen is painted with iodine and covered with a poultice. If the woman is plethoric the morphia is given by the mouth with neutral mixture and wine of ipecac. In some cases tonics are demanded. Occasionally the application of belladonna and blue ointment locally proves beneficial.

If the attack lasts for more than a week and the local tenderness increases, the hot-water douche is applied to the tender cervix uteri. It is at this stage also that flying blisters are applied, beginning with a good-sized blister over the iliac region. In some cases this is all that is required. When the tumor still persists, however, another blister is put on over the womb, and then another over the other side of the abdomen, and so on until the swelling disappears entirely.

If at any time a sudden chill supervene, the plan followed is to begin all over again with large doses of quinia and of morphia.

When pus has formed tonics are administered, and among them iron especially.

In the later stages of the disease muriate of ammonia has been found to be a very excellent remedy.

The following prescription is that usually employed:

℞	Mist. glycyrrhizæ comp.	f ℥ vi.
	Ammonii chloridi	ʒ ij.
	Hydrarg. chlo. corrosivi	gr. i.
	Tinct. aconiti radicis	gtt. xxiv.
	M.	

S.—A tablespoonful in water every six hours.

If pus has formed, and it becomes impossible to secure its absorption by medicinal means, the spot is found where the abscess is beginning to point, and an incision made large enough to admit of a free drain of pus. After aspiration the cavity is injected with a solution containing one part of iodine to nine parts of water, or, in some instances, a five per cent. solution of carbolic acid is employed.

ALBUMINOID DEGENERATION OF THE KIDNEYS OF PROBABLE SYPHILITIC ORIGIN, WITH OZÆNA AND PSEUDO-MEMBRANOUS ANGINA.

The patient was a white man, thirty years of age. When admitted to the hospital he presented the following history: He had been engaged in the manufacture of morocco for the past fourteen years, with the exception of three years spent in a butcher's shop. His habits had been good always, except when butchering, when he was intemperate. He had always been a hard-working man, and had been always much exposed to cold and wet. He had variola and measles when a child, but no other exanthematous disease. He was a married man, and had one child who suffered constantly from œdema of the feet and face. His (the patient's) father died of paralysis of syphilitic origin, and his mother of dropsy. His only living brother was healthy, but his sister had goitre, palpitation, and dropsy.

During the twelve months prior to his admission the patient had had frequent pains in the back and frequent dyspnœa. During the last four months of this time there had been a general condition of anasarca.

The appearances presented by the man upon admission were as follows: His face, neck, feet, and body were swollen. His general aspect was markedly anæmic. He was decidedly drowsy, but his intellect was good. His tongue was tremulous, coated, and flabby, and there was a membranous patch upon his uvula. The tonsils were enlarged, and the throat sore. The man's appetite was good, but there was considerable flatulence and pyrosis after meals. His bowels were somewhat costive. Respiration was attended with a loud noise in the larynx. Expiration was prolonged. The glands on the right side of the neck were swollen. He had a bad taste in his mouth, and his breath had an unpleasant smell. There was

no abdominal effusion, and his lungs seemed to be healthy. The sounds of the heart were distant and feeble, and the pulse was small and rapid. The apex beat of the heart could be felt underneath the rib in the fourth interspace; a weak impulse could also be felt in the second and third interspaces at the border of the sternum. The upper border of cardiac dulness was a line drawn from the head of the second rib to the left nipple, and its utmost limit outwards was a line drawn directly downwards from the nipple to the fifth rib. A line drawn parallel to the linea mammalis and running from the fifth rib to the xiphoid cartilage represents the lower border of cardiac dulness, while its limit on the right was the median line of the sternum. The urine passed was dark red in color, and of alkaline reaction, and amounted to sixty-four ounces in the course of twenty-four hours. The contained albumen formed fully one-half its bulk. Its specific gravity was 1006. It contained many granular and hyaline casts.

The attending physician regarded the case as one of a very curious and interesting nature. It was concluded that the kidneys were the seat of albuminoid degeneration, with catarrhal nephritis. The underlying constitutional taint seemed to be undoubtedly syphilitic. It was argued that the angina was an outcome of the systemic disease, but that the ozæna was presumably a manifestation of the catarrhal nephritis.

The case was regarded as an excellent example of those cases of hereditary syphilitic infection in which the poison is so diluted and the patient's constitution so robust that the disease does not show itself until well on towards middle life.

The indications for treatment were thought to consist in (1), the removal of the dropsy by large doses of jaborandi, and (2) in a nourishing and easily digestible diet. Buttermilk, oatmeal gruel, and light broths were ordered as foods.

After the dropsy had largely disappeared minute doses of the bichloride of mercury, with the iodide of potassium, were administered; at the same time cod-liver oil was given in combination with the iodide of iron. The patient was much improved.

THE TREATMENT OF ORGANIC HEART DISEASE.

In those instances where there is a maximum amount of cardiac force, with a minimum amount of valvular lesion, cardiac sedatives are regarded as the remedies par excellence. Veratrum viride, aconite, the bromide of potassium, and other bromides are given in small and continued doses. The need of cardiac sedatives has been found to be most marked in diseases of the mitral valve, where there is a marked tendency to hypertrophy of the left ventricle.

In these cases the diet allowed is cooling and restricted; circulatory and nervous stimulants are avoided. If the general system is plethoric a saline depurative is administered. The diet, though restricted, is not reducing, *i. e.*, the blood is not reduced in quality by it, though it is of such a kind as to be easily digested.

Where the valvular lesion has been the result of an endocarditis contracted in early life, it has often been found possible to accomplish the greatest amount of good by continuous doses of the iodide of potassium. This treatment has often cured young children with hypertrophied left ventricles and mitral disease.

In those cases of heart disease showing impairment of power, and occurring late in life, the most important item of treatment is rest and the avoidance of all muscular effort. Such patients are given beds on the ground floor and never allowed to mount stairs. In bad cases rest upon one floor and in one room is insisted upon.

The question of diet in the treatment of heart disease has received unusual attention in the medical wards of this hospital. The diet is studied in connection with the state of the system. When the digestion is good and the blood not in abundance, the patient is allowed bread, meat, fruits, and green vegetables quite freely. Some such patients have been benefited by a lean meat diet. No patient in this condition can digest oil well. In those cases where the digestion is not good, koumyss, buttermilk, or skimmed milk is given. Where the secretions are scanty and dropsy is present the diet prescribed is exclusively one of milk. Such patients are not allowed to eat much at a time, but take food frequently and in small quantities.

Where spasms of cough and of dyspnœa occur at night the patient is only given a small amount of stimulus and liquid nourishment for some hours before going to bed.

(To return for a moment to the question of rest. In some mild cases of heart disease, gentle, moderate walking is strongly advised, but in no instance is needless running hither and thither allowed.)

For the relief of the various congestions consequent upon heart disease counter-irritants are applied over the affected part. Where nervous and head symptoms predominate dry cups are applied to the nape of the neck. In pulmonary congestion muriate of ammonia is given internally in addition to the external counter-irritation. The bromides are used in cerebral congestions. When the stomach is congested, blue mass is prescribed.

When the appetite is poor, the stools insufficient, the liver tender upon palpation, and the secretions of the intestines scanty, blue pills, followed by a saline laxative, is a favorite remedy. Renal congestion is put a stop to by digitalis, together with a saline diuretic.

When the system is in an anæmic state, when the blood is watery, and when it is deficient in red globules, iron is given with advantage. Active plethora is always regarded as a counter-indication to the use of iron. The iron, when given, is administered in the form of a laxative ferruginous water, or a diuretic ferruginous mineral water.

In the treatment of the various dropsies complicating heart disease, cups, blisters, iodine painted on the surface, or iodine with croton oil is used.

In some cases the dropsy is entirely cured by rest and a skimmed-milk diet.

In cases of anasarca the most rapid relief is obtained by the use of jaborandi. Where the heart is so weak that jaborandi cannot be used, resort is had to laxatives, or warm vapor-baths.

Ascites is met by saline diuretics; hydrothorax by diaphoretics and diuretics. The patient's whole body is periodically examined physically, to see that no effusian is gaining headway.

If the dropsy becomes otherwise unmanageable, resort is had to operative measures, and the skin is tapped—a number of minute punctures being made in the skin with delicate needles.

Where there is a faulty condition of the nervous ganglia of the heart, associated with the organic disease, digitalis is employed with great benefit. Where one preparation of this drug is not borne by the stomach, another is substituted. Where the separate contractions of the heart are evidently inefficient, and the pulse is weak and small, digitalis has proved itself an unrivalled remedy. The usual dose of the

tincture is gtt. x.; of the infusion, f ℥ i.; and of digitalin, gr. $\frac{1}{60}$ every three hours.

Belladonna has been of service where the heart's action is strong but irregular. Where the heart muscles are weak and passive congestions rife, strychnia and quinia are prescribed.

Progress of Medical Science.

Chloride of Barium in the Treatment of Internal Aneurism.—A case of abdominal aneurism successfully treated by chloride of barium is reported by F. Flint, M.D. The patient, a married lady, aged sixty-five, was first seen in February, 1878, and the diagnosis was confirmed by several professional gentlemen, including Mr. J. W. Teale. For five months Tufnell's treatment was tried, and rigidly carried out, without producing the slightest improvement. Chloride of barium was then selected as a probably useful remedy, and given in doses of one-fifth of a grain three times a day; after three or four weeks the dose was increased to two-fifths of a grain, and maintained at this point during the remainder of its administration, with the exception of a very short trial of three-quarters of a grain. Within a fortnight after the use of the chloride was begun there was a marked diminution of throbbing, which was both subjectively and objectively evident; after nearly five months' continued use of the drug, the tumor was so reduced that it could scarcely be felt, and only a faint systolic murmur could be heard. Four or five months after the discontinuance of the drug, there was still a slight systolic murmur, but no throbbing; the pulse was about 72, and it had entirely lost its unnatural tension.

Mr. J. W. Teale has recently seen the case again, and expressed himself highly gratified with the change in the patient's state. So that testimony can be borne by an independent, trustworthy practitioner to the accuracy of the diagnosis and the reliability of the improvement.

In large doses, two drachms and upwards, chloride of barium paralyzes the heart and great blood-vessels; in doses of about a grain it is a stimulant; the dose selected was less than the stimulating dose, and Dr. Flint thinks he might have done better by adhering to the first amount given (gr. $\frac{1}{5}$), instead of increasing it. The drug appears to have a decided affinity for the muscular coat of the arterial system, and it probably restored tone to the diseased portion of the arterial coat, and thus gave rise to consolidation of the weakened wall. In the case in question, the aneurism appeared to be fusiform rather than sacculated, and therefore deposition of fibrin could not very readily take place. Perfect rest is essential to any medical treatment, and it would be well to try Tufnell's diet alone at first, and afterwards to adhere to it as far as possible during the use of the drug.—*The Practitioner*, July, 1879.

Powdered Aloes in the Treatment of Wounds of Joints.—Dr. E. Millet used powdered aloes in a case of severe injury to the fingers with most gratifying results. The second phalanx of the index-finger was torn from the first, a strip of skin about a centimetre in width, and the deep flexor tendon being all that served to unite them. Recollecting that the veterinary surgeons used powdered aloes with good success in the treatment of wounds of joints, Dr. Millet placed the injured finger on a splint, and covered the wound with the drug. Twice, only, in a fortnight was this simple dressing renewed. The wound healed kindly without any local pain or inflammation, and almost without suppuration. When the splint was removed there was considerable motion in the joint, and it is thought that time and daily use will restore it to its full power. It is thought that the aloes acts in two ways—by assisting cicatrization and by excluding the air; to the latter action was probably due the almost instantaneous cessation of the acute pain from which the patient was suffering before the application. The simplicity of the dressing, requiring but infrequent renewing, is not one of its least recommendations.—*Revue Médicale*, July 26, 1879.

Aneurism of the Auricle of the Right Ear.—M. Weinlechner records a case of aneurism of the auricle of the right ear, for the relief of which he ligated the primitive carotid. Six months later the skin of the affected part had returned to its normal condition, and the patient was free from the tinnitus aurium, and the headache from which he had suffered for a number of years.—*Gazette des Hôpitaux*, June 28, 1879.

Pyonephrosis with Excretion of Fluid Fat and Hæmatoidin-Crystals in the Urine.—Ebstein, of Göttingen, reports this remarkable case: The patient, a woman, was attacked suddenly with fever and pain, attended by the development of a tumor in the left side of the abdomen. The acute symptoms passed off in a few days, but seventeen days after the outbreak of the affection hæmaturia set in, accompanied by pain, at first referred to the tumor and afterwards to the left ureter and the bladder. The sediment, at first consisting of pure blood, later on became more and more purulent, and then numerous fat-drops and hæmatoidin-crystals were observed in the urine. The urine, at first scanty, steadily increased in quantity, and at the same time the tumor progressively diminished in size, but it had not entirely disappeared at the time the patient left the hospital. The tumor was thought to be due to a pyonephrosis of the movable left kidney. The excretion of fat persisted for several weeks. It occurred in the form of clear, golden yellow drops floating on the surface of the fluid; after the urine had stood for some time they presented signs of coagulation and crystallization. They consisted of a mixture of the oleate, margarate, and palmitate of glycerine. The urine contained also hæmatoidin-crystals, a very rare constituent; they were found along with fat globules in the ragged flakes that were passed abundantly in the urine, and also mingled with the fat floating on the surface of the fluid. Prof. Ebstein ascribed the fat to a fatty degeneration within the tumor, and the hæmatoidin-crystals to the preceding hemorrhages. He refers to a case reported by Mettenheimer, in which, after a sudden attack of hæmaturia, accompanied by the development of a tumor in the region of the kidney, fat drops were observed in the urine for several days, but no hæmatoidin-crystals were found.—*Berl. klin. Wochen.*, July 7, 1879.

The Treatment of Metrorrhagia by Café Noir.—Després reports two cases of intractable metrorrhagia, in which he prescribed six cups of strong infusion of coffee in a single day, with perfect and immediate success, the hemorrhage ceasing within twenty-four hours. He thinks the caffein contracted the heart and blood-vessels.—*Medical Times*, August 2, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery

GEORGE F. SHRADY, A.M., M.D., Editor

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 27, 1879.

MEDICAL TEACHING.

An eminent member of our profession has said that the knowledge which a medical student obtains while in college has but little practical value.

Another eminent member of the profession has said that a man is just ready to begin the study of medicine after he has practised it five years.

These are the opinions of two men who have seen much of medical students—one has been a public teacher in medicine for many years—and they are the result of mature and prolonged experience and observation.

The first statement is based on experience obtained in one of the first medical colleges in this country, together with careful observations respecting how much of the knowledge then acquired was subsequently of practical value in the diagnosis and general management of disease. He maintains that the general plan of medical teaching is radically wrong and practically worthless, for the reason, that at no time during the entire course of public instruction does the student receive instruction in the methods of observing morbid phenomena and the sources of error in investigating the histories of cases. In other words, the medical student may go out from his alma mater bending under honors and laden with classical knowledge regarding the phenomena of disease, yet when he approaches the bedside of the sick he finds that his well-treasured and finely-spun digest of medical lore cannot be used; that he is obliged to begin and study for himself, and that his success depends largely upon his ability to work out his own salvation.

In this sweeping belief there are some grains of truth. We believe that it is the uniform experience of medical men, when they first enter into practice, to find that they are called to manage cases which "are not described in the books," and lack all the classical appearance which, from their teaching, they have been led to believe nearly every case possesses. Such cases, however, go to make up the mass of business done by the general practitioner, and in a certain sense it may be said, and truthfully too, that his whole course of medical instruction is of no assistance in solving these perplexing problems, because he has not heard anything concerning them in the lectures, nor can he find any description of them in the books. However, to unravel the thread we have only to ask, Is not the young practitioner more competent to undertake the task of reaching the unknown quantity in such cases than if he was not the possessor of his school knowledge? We think he is; but with his five years of experience contemplated in the second statement, he is doubtless far better prepared to pursue his studies and examine his cases than when he first commenced.

It is not disrespectful towards medical colleges to say that their course of instruction is not all that is desired in order to fulfil the best interests of the medical profession. Deficiencies exist—but no more, perhaps, than belong to other organizations of like character. Errors, however, are being slowly corrected and wants supplied, a fact which betokens a healthy root, and as the pruning and grafting goes on the fruit will certainly improve in quality. We are near the time when medical colleges commence their regular course of instruction, and there are one or two points to which we wish to direct attention, believing that a careful consideration of them will do much to disprove the first statement with which we began, and also to disarm the second.

In the first place, and in general, medical teaching to medical students is not sufficiently elementary.

An eminent, old, and successful teacher in medicine has said that each year he makes his instruction more and more elementary, simply because he has found, by experience, that it is that from which the student derives the most practical benefit. An eminent, old, and successful teacher in surgery has said that when he first began to teach, he studied to make his lectures finished rhetorical efforts, and sought especially for rounded sentences. To his surprise, chagrin, and profit, when he came to examine his students for the degree he found that they knew little or nothing concerning surgery. In the experience of these two men there is sufficient to illustrate our meaning, and it is this: that he who instructs medical students in elementary principles, and does it in the simplest language, is the most successful teacher, providing he enforces by demonstration what he has to say. To dwell on subjects difficult to acquire, which are speedily forgotten, and have no practical value when acquired, is not only an unprofitable consumption of the time of the student, but it does him a lasting wrong insomuch as it gives him knowledge he does not need, and deprives him of a personal share in clinical study and in an acquisition of that knowledge

of disease and remedies which is to serve him for immediate use and in emergencies.

This brings us to the second point to which we direct attention, and that is, the power of demonstrative teaching. A large portion of the medical teaching of the present day lacks the force of demonstration. It is descriptive rather than demonstrative. There is nothing that does more toward correcting special views and operations and the exaggerated and faulty notions which get into the minds of medical students, and also medical men, than demonstration. If the student can see a typhoid ulcer, a micrococcus, the fundus of the eye, an inflamed tympanum, a urinary cast, a urinary crystal, a vesico-vaginal fistula; if he can touch a displaced uterus, a prolapsed ovary, an abdominal tumor; if he can hear a cardiac murmur, a crepitant, subcrepitant or bronchial râle, a pericardiac or pleuritic friction sound; if he can see his teacher map out by percussion the heart, the liver, the spleen, the fluid in a pleuritic cavity, or the consolidated portion of a lung, it will do more toward imparting instruction which will prove of value to him when he goes out to meet the maladies of human life, than hours of unaided talk or reading. Even the illustrations with which text-books abound cannot be fully appreciated, and are very liable to give erroneous impressions until the original has been seen. What sways and convinces an audience, even of experienced medical men, more than ocular demonstration? The teacher who simply stands by a patient in a clinical amphitheatre and discourses learnedly, and correctly it may be, regarding the precordial triangle, the physical signs of subacute pleurisy, or ascites, a foreign body in the eye, the appearance and feel of a chancroid or chancre, a urethral stricture, an abdominal tumor, scabies, eczema or varicella; tells of the manner in which a roller bandage should be turned in order to look elegant and fit well, of how a plaster-of-Paris dressing should be applied,—and makes no effort to demonstrate these things, is thoroughly untrustworthy, and should not be tolerated by the ordinary medical student. Such teachers have too much the appearance of those who teach, or rather meagrely go through with a formality in teaching, simply to obtain the money that a medical student may have. The number in the latter class we charitably believe is small; but they are like a *non compos* on a mountain, to whom everybody looks small, and who looks small to everybody else.

Dr. Andrew Clark, from whom our readers heard when he made his visit to this country, in his address before the Section in Medicine of the British Medical Association, refers to this point, and notes it as one of the deficiencies in the present system of medical education. He says: "Medicine is an art, and its end is practice, and the worth or worthlessness of any system of education must be tried by the degree in which it helps or hinders this end." One of the vicious methods which the system sanctions is that "the student is told and not taught." "The teacher, instead of making the student follow him step by step in his methods of observing, collecting, comparing, testing, and recording facts and of reasoning thereon, leaves them to be learned by being described, forgetful that they can be learned only by being practised."

When in the fulness of time it is insisted that medical students shall receive more thorough instruction in the practical elements of the science and the art of medicine, and shall be made to share in clinical study, the people will be furnished with more medical men who possess trustworthy knowledge regarding the powers of nature and of art in bringing about recovery from disease. The knowledge then acquired as a student will be of positive value as a practitioner of medicine, and the first five years of professional life will bring with them a reward commensurate with the labor performed.

THE CARE OF HABITUAL DRUNKARDS.

THE question of what should be done with habitual drunkards is still a very unsettled one, and is rightly claiming the attention of both medical and legislative bodies. In this country the prevalent opinion amongst those especially interested in the matter is, that inebriety is a disease (rather than a vice), and that its victims should be regarded and disposed of in much the same way as insane persons. Inebriates, it is claimed, are not in many cases to be considered responsible for their actions, and should therefore be taken charge of by the State and placed in asylums appropriate for their treatment. There are, we believe, but two asylums for inebriates in this country where the theory that drunkenness is a disease is not adopted as the basis of management; and we have several States where this placing of the inebriate on the same footing with the lunatic has been more or less rigidly adopted. In Connecticut, the idea is completely embodied in the law, and habitual inebriates can be committed by the court, upon proper evidence, to an asylum. In this State the law is less radical, nevertheless it provides that persons who have become incompetent, through habitual drunkenness, to take charge of their affairs, shall be put in charge of the court. Several other States have laws, which, in like manner, class the victims of alcohol with idiots, lunatics, and persons of unsound mind.

Instigated by the general revival of interest in the temperance question in England, and perhaps partly by our progress in the matter, the British Medical Association appointed a committee, a year ago, to secure some legislation upon this subject of habitual drunkenness. There were then in England no laws in regard to the care of inebriates, and but few private asylums, these being such as only the wealthier classes could patronize. The question of greater provisions for, and compulsory treatment of inebriates, was

brought before Parliament at its last session. After much struggling a bill was passed which provides for the establishment of inebriate asylums, granting, however, only a voluntary entrance to them. An inebriate can commit himself, and he must commit himself for a certain period of time; but he cannot be compelled to enter the institution. This result is by no means all that was desired or sought for; but no more could be obtained, and it is hoped that it may be the entering wedge for something better in the future. What the committee wished, and will continue efforts to obtain, is the establishment of asylums to which every inebriate who has reached the stage when his appetite is supreme and he is unable to take charge of his affairs, shall be at once committed for a considerable period of time.

While it is undoubtedly a fact that the weight of medical opinion is in favor of considering and treating inebriety as a disease, and of providing compulsory care for its subjects, there is some very high authority upon the other side. Dr. Bucknill, who visited this country in 1875 and went through our lunatic and inebriate asylums with a free lance, declares drunkenness to be a vice and only the *cause* of disease. He speaks depreciatingly of the great prominence usually given to heredity, and looks upon the ordinary inebriate asylums as institutions which only coddle drunkenness and patch up the evil they pretend to alleviate.

The practical importance of definitely determining whether drunkenness be a disease, or only a cause of disease, is not so great as specialists would have us think. When a man has become a dipsomaniac, has ruined himself and family, and is both a nuisance and a danger to society, he needs to be taken care of without regard to fine pathological distinctions. Before settling the pathology of inebriety, therefore, we can urge the propriety of legal provisions for its victims. The British Medical Association is working in the right direction. Present asylums may be poor, and the difficulties of obtaining proper legislation for inebriates great, but this does not affect the fact that persons whom alcohol has unfitted for every social and domestic duty, and who are degraded and made violent by its indulgence, need and should have State or local supervision, accompanied by such measures as will not punish and still further degrade, but will tend to cure and restore them to usefulness.

THE NEW YORK PATHOLOGICAL SOCIETY.—The third volume of the Transactions of the Society is now ready.

DR. GILMAN KIMBALL.—On the evening of September 30th Dr. T. Gaillard Thomas, of this city, gave a brilliant reception in honor of Dr. Gilman Kimball, of Lowell, Mass., who is the oldest ovariotomist now living in this country. A large number of eminent members of the profession were present.

Reviews and Notices of Books.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. Edited by ALBERT H. BUCK, M.D., American Editor of Ziemssen's Cyclopædia of the Practice of Medicine; Aural Surgeon to the New York Eye and Ear Infirmary. In two volumes. New York: William Wood & Co. 1879.

THE second volume, like the first, has two parts. The first is devoted to Occupation, and the second to Public Health. The first article in Part I. of the second volume is on the Hygiene of Occupation, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. Dr. Tracy considers his subject under three heads: I. Occupations involving the introduction of deleterious matters into the body; II. Occupations involving exposure to conditions that interfere with nutrition; and III. Occupations involving exposure to mechanical violence.

There are some very interesting statements in this article, particularly those relating to the inhalation of gases and vapors. It is well written, and has a bibliography.

The second article is on the Hygiene of Camps, and was written by Charles Smart, M.B., C.M., Assistant Surgeon United States Army. The camps of military and civil life are considered in this article, which is illustrated, and is written in a practical style. The transmission of malarial fever by means of drinking-water is spoken of here, and the writer also throws a shadow of doubt over the reported prevalence of typhoid fever—"simple or masked by malarial concomitants"—among our troops during the late war. He also believes that the germ theory does not involve such exclusiveness as forbids the possibility of a *de novo* origin of typhoid fever.

The third article is on the Hygiene of the Naval and Merchant Marine, by Thomas J. Turner, M.D., Medical Director United States Navy. The writer says that naval hygiene has for its province all that concerns the health of a special class whose occupation is pursued under conditions which are so arrayed as to be in almost absolute defiance of all sanitary laws. Nevertheless it is among these men that preventive medicine has demonstrated its economic and social value, and these are exhibited in his remarks on the ship, the sailor, the air, the water, the food, the clothing, the light, the sleep, the discipline, and the diseases peculiar to ship-life. It has a bibliography.

The Hygiene of Coal Mines is the title of the fourth article, and was written by Henry C. Sheafer, Coal Editor of the *Miners' Journal*, Pottsville, Pa. In this we find a sketch of the work, habits, and mode of life of the working miner, and the conclusion is reached that coal miners have as good average health, as fair percentage of longevity, and as low a death-rate as any other class of manual laborers.

The fifth article is on the Hygiene of Metal Mines, and was written by Rossiter W. Raymond, Ph.D., Editor of the *Engineering and Mining Journal*, New York City. This is a short article, in which the writer refers to physical exertion, air, and temperature, and gives some general conclusions, and also makes references to metallurgical works. It is the last article in Part I. of Vol. II.

The first and second articles in the second part of the second volume are on Infant Mortality and Vital Statistics, and were written by Thomas B. Curtis,

M.D., of Boston, Mass., Surgeon to Out-patients at the Massachusetts General Hospital. In the first article the writer refers to the methods of estimation, the predisposing causes to infant mortality, and the principal diseases of infancy which especially affect the rate of mortality.

In the second article is a large accumulation of valuable statistical material.

The third article is on Adulteration of Food, and was written by Stephen P. Sharples, S.B., of Boston, Mass., Chemist, Inspector of Milk for the City of Cambridge. In this article we find a concise account of the apparatus and appliances found useful in this branch of research, the adulterations of the more common articles of food, with the methods of detecting the same. The article has a bibliography.

The fourth article is on Public Nuisances, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. This subject is discussed under the following heads: I. Offensive trades, such as the keeping and the killing of living animals, the storage and the handling of mineral matters, carpet-cleaning, street-sweeping, etc.; II. Offensive processes, such as fat-rendering, bone-boiling, varnish-making, smelting, assaying, distilling, etc.; and III. Other nuisances, such as dead bodies, privy-vaults, cemeteries, diseased animals, prostitutes, etc. The article is exceedingly interesting; it has a bibliography, and also a few illustrations.

The fifth article is on Quarantine, with reference solely to seaport towns, and was written by S. Oakley Vander Poel, M.D., Health Officer of the Port of New York. It is from the pen of one who has had large experience, and is familiar with the subject on which he has written.

The sixth article is on Inland Quarantine, and was written by S. S. Herrick, M.D., Secretary of the Louisiana State Board of Health. In the consideration of this subject the author refers solely to yellow fever and cholera. Here we find an interesting discussion of the origin of yellow fever and the legislation necessary for the protection of communities.

In both articles on Quarantine the value of preventive medicine is recognized.

The seventh article is on Small-Pox and other Contagious Diseases, such as scarlet-fever, measles, and whooping-cough, and was written by Allan McLane Hamilton, M.D., Sanitary Inspector of the Board of Health, New York, and Bache McE. Emmett, M.D., New York City. This is a brief article, and is well adapted to a work of this character.

The eighth article is on the Hygiene of Syphilis, and was written by F. R. Sturgis, M.D., Clinical Lecturer on Venereal Diseases in the University of New York, etc. This is a five-paged article, in which the subject is considered under the following heads: 1. The contagious character and danger resulting from the disease; 2. Its effects upon health and longevity; and 3. The means adopted for its control.

Disinfectants are considered in the ninth article, and it was written by Elwyn Waller, Ph.D., Chemist to the Metropolitan Board of Health, New York. After an appropriate introduction the different agents in use for disinfection, such as heat, bromine, sulphurous acid, metallic salts, etc., and their application, are considered.

The tenth article is on Village Sanitary Associations, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. This is a brief article, and it hinges on preventive medicine.

Dr. D. F. Lincoln, M.D., of Boston, Mass., wrote the eleventh article, which is on School Hygiene, and in which the subject is treated under the heads: Site and points in construction of the houses, heating and ventilation, drainage, contagious diseases, hygiene of the eye, desks, seats, mental application and bodily exercise. This article has a bibliography, and although the last in the volume, it is not the least in value. If these two volumes could enter every house, and there be studied, an influence for good would be exerted which is beyond ordinary estimation.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, A.M., M.D. Complete in Twelve Parts. Parts III. and IV. New York: E. B. Treat, No. 805 Broadway.

PART III. contains descriptions and illustrations of Fibroma pendulum, Varicella, Zoster pectoralis and lumbalis, and Eczema universale.

Part IV. contains descriptions and illustrations of Leucoderma, Chromophytosis, Favus capitis and corporis, and Eczema cruris.

The illustrations of fibroma and varicella are very good, those of zoster poor, and that of eczema universale excellent, so far as extent goes, but only moderately good for conveying a correct impression regarding the actual appearance of the disease.

The illustrations of leucoderma and chromophytosis are very good, those of favus still better, and that of eczema cruris is well calculated to convey an incorrect impression. The skilled artist has in some instances, it seems to us, used his brush a little too freely.

A CLINICAL TREATISE ON DISEASES OF THE NERVOUS SYSTEM. By M. ROSENTHAL, Prof. of Diseases of the Nervous System at Vienna. With a Preface by Professor Charcot. Translated from the author's revised and enlarged edition, by L. PUTZEL, M.D. New York: Wm. Wood & Co. 8vo. Pp. 278. 1879.

WE have in this book another and very valuable addition to "Wood's Library of Standard Medical Authors." The book, though essentially a clinical treatise, gives a very complete account of the pathology of each disease, as well as of such physiological points as are necessary to an understanding of the symptoms. The present volume is the first of two, and includes only the organic diseases of the nervous symptoms. These are treated of in a clear and concise manner, without theorizing or flourish of rhetoric; nor is the book encumbered with extraordinary cases. The chapter on tumors of the brain is especially good, and under the head of symptomatology the author covers nearly the whole ground of cerebral localization. In the matter of treatment, especial attention is called to the value of hydro-therapeutics in chronic nervous diseases. Such measures are steadily gaining ground in Europe as helps in treatment, and their prominence in the present work will add much to its value. In his preface, Prof. Charcot compliments the author on the directions given in the book regarding the use of electricity, and admits that Dr. Rosenthal has taught even the countrymen of Duchenne some useful indications. The translator has done his work well, and made the book into very good English. He has added quite a number of illustrations, not contained in either the French or German editions, and has shown excellent judgment in the selection of such cuts as would be most likely to help the student.

THE ACADEMY OF MEDICINE in Paris has awarded a prize of $400 to M. Burg for his researches in metallotherapy.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Section in Surgery.

W. K. Tanner, M.D., F.R.C.S.I., President, in the Chair.

Wednesday, August 6th.

THE DIAGNOSIS AND TREATMENT OF JOINT DISEASES IN THEIR VARIOUS STAGES

was the subject for discussion, which was opened by Dr. Lewis A. Sayre, of New York. Dr. Sayre restricted his observations to the joint diseases generally termed scrofulous, such as strumous disease of the ankle-joint, white swelling of the knee-joint, hip-joint disease, and Pott's disease of the spine. The position taken by the doctor was, that those diseases were essentially of traumatic origin. If they depended upon constitutional dyscrasia, how was it that many patients, after recovering from hip-joint disease, caries of the spine, etc., were ever afterwards sound and healthy? Moreover, the family history of many such cases could be traced back for many generations without finding any trace of scrofula or any other debilitating affection. The degenerative processes went on, in and about a slightly injured joint, and produced constitutional disturbance before the local manifestations attracted attention; therefore, by most, those local manifestations were regarded as the result of the constitutional dyscrasia. Even in strumous subjects, some local injury must occur before joint-disease developed, and in such subjects, especially, a very slight injury might be followed by very disastrous consequences. Scrofula, whatever it might be, exerted a most pernicious influence for evil after traumatism had done its work. The great and essential factors in the treatment of joint-diseases were extension and counter-extension, rest to the parts, tonics, friction and elastic compression, aspiration, free incision, exsection.

Dr. Barton, of Dublin, who had seen a large number of cases of *morbus coxarius* in the children's ward in his hospital, was convinced that, on the whole, Dr. Sayre's theory was correct—that the disease arose from some injury, and took its tone afterwards from the particular diathesis from which the patient was suffering.

Dr. J. T. Hodgen, of St. Louis, Mo., thought that both those who accepted the theory of traumatism, and those who accepted the theory that joint-diseases occurred only in strumous subjects, would accept the proposition that if this peculiar condition of system was not present, rendering the person liable to such diseases, no amount of force would develop them; but when it did exist, a very trifling injury might cause *morbus coxarius*, or other joint disease.

Dr. E. H. Bennett, of Dublin, thought that the opinions of surgeons were very much with Dr. Sayre, especially with reference to the traumatic origin of joint disease as contrasted with its strumous origin.

Mr. Owen, of London, believed that Dr. Sayre went too far in saying that each case required an exciting cause. Dr. Sayre had also said that he was disinclined to believe that those cases were of strumous origin because so many of them recovered completely; but surely, if a man having strumous disease of the testicles could recover when they were removed, strumous disease of the joint might be just as curable.

Dr. Wheeler, of Dublin, did not agree with Dr. Sayre regarding the effect of motion in the treatment of joint disease.

Mr. Wm. Adams, of London, agreed with Dr. Hodgen, and thought there was no very wide difference between Dr. Sayre and Dr. Gross on the subject of scrofula. He himself had been in favor of the traumatic origin of morbus coxarius, but he had also felt that it must be grafted on the constitution. He had largely adopted the extension principle. The treatment in that country seemed to lead to immobility, fixation, and anchylosis; but American surgeons allowed that motion which prevented anchylosis, and he thought that surgeons in Great Britain had a good deal to learn in that respect.

Friday, August 8th.

William MacCormac, F.R.C.S., Vice-President, in the Chair.

ON THE CAUSE OF EVERSION OF THE LIMB AFTER FRACTURE OF THE NECK OF THE FEMUR.

Mr. Edmund Owen, F.R.C.S., of London, read a paper on the above subject, and illustrated his theory by means of diagrams. Sir Astley Cooper had attributed the eversion to the superior strength of the muscles of external rotation; and his views, which had afforded an excellent working hypothesis, had been generally adopted by subsequent writers. Mr. Owen, however, asserted that the thick mass of muscles of internal rotation were more powerful than the muscles of external rotation, though the latter were much more numerous. That important fact he had ascertained by testing the relative power of the two groups of muscles by means of a specially arranged spring-balance and indicator. His theory had the following factors: The posterior surface of the thigh of a man, lying supine on a flat surface, hardly touched that surface, the weight being transmitted partly by the pelvis, partly by the calf. The centre of gravity of the limb was well to the outer side of a straight line connecting the middle of the acetabulum and the heel. In search for stable equilibrium, the sound limb rolled outwards until further eversion was checked by the front of the capsular ligament rendered tense. In that position the limb was found in sleep, after paralysis, and in death. Division of the front of the capsule was followed by still further eversion, and the neck of the femur being divided inside the capsule, the limb rolled over on to its outer side. Similarly, when the neck of the living femur was broken the limb tumbled into the position of eversion, and muscular action had nothing to do with its position. The administration of chloroform was never followed by a righting of the limb. Extreme violence might leave the limb in a position of inversion after the fracture had been produced; but when the fragments were unlocked eversion at once declared itself and persisted. When the femur was fractured below the level of the lesser trochanter, eversion was still a most characteristic feature of the lesion.

Mr. Cooper Foster, of London, concurred in Mr. Owen's theory, and the Chairman remarked that Mr. Owen had proved his case by observation and by experiment.

ON THE IMMEDIATE CURE OF HERNIA BY A NEW INSTRUMENT.

W. D. Spanton, Esq., M.R.C.S., of Henley, read a paper on the above subject, in which, after alluding

to the great frequency of hernia and the comparatively small proportion in which any attempt was made to cure the affection, he referred to the methods hitherto practised, under four heads: 1. Contraction of the skin and sac by excision, cautery, or ligature; 2. Closure of the sac by adhesive inflammation; 3. Plugging the inguinal canal; 4. Bringing the walls of the canal together, which was first alluded to by Sir W. Lawrence, and brought into practical notice by Mr. John Wood, and was commonly known as Wood's operation. The great object being, according to Wood, to establish "complete union along the whole length of the canal." Mr. Spanton had devised an instrument by which that result might be obtained with greater certainty and safety than by any of the methods that had hitherto been employed. The instrument was of the shape of an ordinary corkscrew, and was introduced from above downward in such a way as to bring together the outer and inner pillars of the inguinal canal at three or four different points, and at the same time to secure the invaginated sac or fascia, which was separated subcutaneously in Wood's method, in the inguinal canal for a sufficient length of time to ensure complete occlusion of the hernial opening. The author related fourteen cases in which the operation had been performed, and, in all but one, the result had been quite satisfactory. In not a single instance had any dangerous symptoms resulted. The operation might not in all cases succeed perfectly, but it was a satisfaction to know that it was almost impossible to incur the odium of having, by it, left the patient so that his last state was worse than the first. He had observed in most cases a temporary swelling of the scrotum, sometimes to a considerable extent, but no ultimate inconvenience had resulted from the temporary pressure on the spermatic cord. If, at any time, injury was feared, the instrument could be easily withdrawn, the surgeon being content with what had been accomplished.

Mr. Alcock, of Burslem, thought that Mr. Spanton's operation was incomparably easier than Mr. Wood's. He had performed the operation on a young woman on Thursday, and on Sunday there were no abnormal symptoms, and consolidation was gradually taking place.

ANALYSIS OF ONE HUNDRED CONSECUTIVE CASES OF OPERATION FOR STONE IN THE BLADDER.

W. F. Teevan, B.A., F.R.C.S., of London, reported a series of one hundred consecutive cases of operation for stone in the bladder, of which three were females, twenty-two were boys, and seventy-five were adult males varying from seventeen to seventy-seven years of age, the majority being between sixty and seventy years old. When he began to operate for stone in the bladder in February, 1863, he had two distinct objects in view: 1. He proposed to crush wherever practicable, in order to ascertain what were the limits within which it might be advantageously employed; and 2. To cut out a stone rather than extract it by the so-called method of dilatation after the primary incision had been made.

Of the twenty-two boys, the youngest was eighteen months old, the eldest fourteen years. All were operated on by lateral lithotomy. All recovered, and only three were troubled with incontinence of urine after the operation.

Of the seventy-five men operated on, fifty-five were relegated to lithotrity. The fifty-five cases occurred in fifty different men. In one case lithotrity was attempted but not persevered with, the man being relegated to lithotomy. In one case lithotrity was supplemented by median lithotomy. The patient, aged 68, died from exhaustion due to cystitis. In one case cystotomy was performed with success, one year after lithotrity, for the cure of local irritation. Most of the cases were complicated by cystitis, enlarged prostate, stricture of the urethra, atony of the bladder, or by renal disease. Six patients died in his hands; three from the operation, three from other causes. Five patients were troubled with local irritation after the removal of the calculi. All the rest were cured. Lateral lithotomy was performed on thirty-four patients; twenty-two were the boys who all recovered. Of the twelve adult males six recovered and six died. Medio-lateral lithotomy was performed on two gentlemen. One died and one recovered. The medio-bilateral operation was performed on one patient, who died from suppression of urine. In two cases lithotrity, at one sitting followed immediately by external urethrotomy, was performed, both patients making good recoveries.

He would at all times prefer to cut out a stone rather than to tear it out. He did not believe that dilatation could be effected. As regarded hemorrhage, although there might be a great gush of blood at first, it would cease immediately, and he would not use any tube.

A NEW METHOD OF USING ICE.

Dr. Edwyn Andrew, of Shrewsbury, pointed out the advantages in certain surgical and medical cases of employing medicated ice. He thought the cold was rendered more effective by being combined with the active principles of drugs, and by freezing various medical solutions. In that manner ice might be rendered highly antiseptic, caustic, or styptic. In medical cases, especially of the throat, stomach, and hemorrhages from internal organs, ice might be thus pleasantly used to relieve symptoms and at the same time convey medicine as food to the stomach when the latter would resist them in any other way.

Correspondence.

LITHOLAPAXY.

To the Editor of the Medical Record.

Dear Sir:—Will you allow me to correct an erroneous statement contained in one of your recent editorial articles upon the new lithotrity (Vol. 16, Nos. 7–8)? It relates to the lithotrite devised by me. This particular instrument is not indispensable for the performance of litholapaxy, since almost any lithotrite can be made to crush the stone—the novel and essential characteristic of the new method being the complete evacuation of the calculus by a long sitting and a large catheter. But, although the error referred to is unimportant, it should, I think, be corrected in deference to surgeons who use my non-impacting instrument.

The writer says, referring to the lock of this lithotrite, "the liability to break is a serious objection." . . . . "Thompson's catch cannot be broken in this manner." Now, this is a mistake. My instrument, although employed by myself and others upon stones both large and hard, has never been, as your writer states, "broken." Nor do the parts he alludes to (the old screw-blocks of Charrière and their boxes) differ in strength from those of all other lithotrites,

inasmuch as they are identical in all of them. If one breaks, others must be liable to the same accident.

This writer has misapprehended a trivial occurrence, incidentally mentioned many months ago, in connection with the then novel method. This was what happened: Tiemann & Co. borrowed from me, for examination, a lithotrite just arrived, one of the first of my instruments made in Paris, and lent it for use. The French workman, to whom the lock was new, had miscalculated the width, in this combination, of the Charrière screw-blocks; so that when the instrument was locked and screwed up, these blocks had little or no bearing. They were at once lifted out of their boxes, just as they are purposely lifted out by the thumb and finger when they need cleaning. That was the whole of it. The skilful French maker, annoyed at the carelessness of his workman, made the lithotrite perfect in a few hours. And the surgeon, in whose hands the defective adjustment revealed itself, ordered one of my lithotrites from Weiss.

The error here corrected does not impair the general excellence of the other criticism, it being quite possible that the writer should be a skilful surgeon without being perfectly familiar with the locks of lithotrites; just as a skilful navigator may not have investigated the construction of the chronometer he uses.

Several of the critical remarks of your able editorial writer are well founded. He rightly says that the evacuating process, though not more efficient, is drier and neater if all the water is kept inside the aspirator and all the air outside of it; which implies that there should be good joints and no leakage, with stopcocks at all the orifices, one of them being at the highest point to let air out easily. I would add, however, that it is important not to lose sight of convenience in other respects.

The progress of the new lithotrity was most liberally encouraged, at an early period, by New York surgeons. The attention now directed to some of the minor details connected with the instruments is rapidly contributing to their perfection.

Almost the only objection I have known made to the new method, either here or abroad, has been directed to the size of the instruments I generally use, which at first impressed persons accustomed to the use of Clover's aspirator and the English lithotrite as "clumsy" or "unwieldy." Large-sized catheters are absolutely indispensable, and are now so recognized. With regard to the size of the lithotrite, it is to a certain extent a matter of taste. My own instrument, with a wrist-lock, ball-handle, and non-impacting blades, is not necessarily larger than others. It can be had from Tiemann & Co. of any size the operator may prefer. I think, however, that large and hard stones will be found to require a more powerful instrument than those hitherto in use. In fact, it is very possible that a calculus should break a lithotrite. This accident happened from time to time in the practice of the old lithotrity, and we are now dealing with larger and harder stones. That is one reason for avoiding a slender construction, especially of the blades. But my chief reason for using a large lithotrite is the convenient command it gives of the stone. Having learned how easy, as well as safe, with proper care and skill, is the introduction of large instruments, I prefer to use a powerful lithotrite, to crush even a moderate-sized calculus, provided the blades are so constructed as not to become impacted. With a small stone or fragment, the choice of a lithotrite is wholly unimportant; while a bladder or urethra, if exceptional in any way, may require an exceptional instrument. But I do not see why some operators still enjoin the use, in all cases, of the smallest or lightest lithotrite that can possibly be made to crush the calculus.

HENRY J. BIGELOW.

BOSTON, MASS.

JABORANDI IN A SEVERE CASE OF PUERPERAL ALBUMINURIA WITH CONVULSIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I was summoned hastily August 8th, at 12 M., to Mrs. H——, nineteen years of age, primipara, whom I found in bed, dressed, lying on her back, and breathing heavily. From her mother I obtained the following history: The patient, Mrs. H——, was her son's wife, who had come from a neighboring town to be delivered. She had complained for the previous fortnight of nausea and vertigo, with dimness of vision and occasional very severe pains in head, and even her best days were rendered unbearable by a general feeling of malaise—listless and lifeless—yet she got up mornings and was about the house, passed but little urine, but that this morning, August 8th, while sitting by the window she was suddenly, without warning or noise, seized with a fit, fell to the floor, and was carried to the bed unconscious, where I saw her. She was at about the middle of the eighth month of pregnancy, she thought. She was unable to speak or swallow, and could not be roused to consciousness; her face, feet, and entire legs were œdematous, and pitted deeply on pressure; the œdema was very marked, the whole areolar tissue seemed infiltrated; the cervix I found was not dilated, but mostly effaced; passed catheter, but could obtain no urine; the skirts were wet with the urine, which had passed involuntarily in the first seizure; the bowels had moved in like manner; the convulsions followed each other at short intervals, and they were terrific to behold. She was a stout muscular blonde, and every muscle was engaged, the bloody, frothy mucus issuing from the mouth. During the intervals there was a heavy stertorous sleep, but no return to consciousness. The catheter was passed repeatedly, both before and after the fits, but could find no urine.

I gave by rectum 20 grs. hyd. chlor. and half drachm of fl. ex. jaborandi; applied ice to head; in half an hour gave by rectum 20 grs. chloral and 40 grs. brom. pot.; no effect on fits, they were severe and of epileptiform character. After an hour gave by hypodermic syringe 15 min. fl. ex. jaborandi; in half an hour repeated the dose, and in half an hour had profuse salivation and excessive diaphoresis. The convulsions were not altered; they seemed to be general and longer; respiration was labored, and dyspnœa distressing; there were numerous and loud bronchial and tracheal râles, but no interruption or cessation of fits; the salivation and sweating steadily going on. I then gave by inhalation sul. ether. I had seen before that the uterus was contracting, and could be easily felt through the abdominal walls; the ether controlled the attacks, but, owing to the great difficulty of respiration and bronchial obstruction, I dare not push it. On making examination found the os dilated and thin, membranes ruptured, the head presenting. When I applied the forceps, and delivered without difficulty a dead child (male), the placenta soon followed, the uterus contracted fairly. She had, up to the birth of the child, fifteen convulsions, but none after it; but now there was profound coma, pulse very feeble, respiration

noisy and short, dyspnœa distressing. She died four hours after, unconscious, as she had been from the first convulsion. The case is, I think, remarkable in some respects.

First.—Unconsciousness from the first, and striking resemblance of the fits to epilepsy. She had never been epileptic.

Second.—The general character of the convulsions.

Third.—The absence of urine, the catheter being passed both before and after convulsions. There was ischuria after the first attack.

Fourth.—In a case of the severity and gravity of the above it would be too much to expect of any one drug, and in so short a time, to eliminate enough urea from the system to materially affect the fits, and I would not condemn hastily; it is a most remarkable agent, a powerful eliminative and febrifuge, and will with certainty produce its specific effects; in this case the temperature was lowered one degree; it also brought on, I think, contraction of the uterus. It had no effect on the convulsions, or on the kidneys. But I would not use it again because, 1st, from its weakening effect on the heart and pulse, venesection is contraindicated; 2d, from the great increase of bronchial secretion that it pours out, anesthetics are contraindicated, for it will weaken the heart and obstruct respiration if given in sufficient doses to eliminate urea, and I should not exchange the old-fashioned venesection and anæsthetic, both of which its use seems to contraindicate. It did, at least, in the above case.

E. E. Mather, M.D.

Williamstown, Mass.

"NEGATIVE PRESSURE."

To the Editor of The Medical Record.

Dear Sir:—There is a certain expression which has come into use in connection with the physics of respiration and circulation, to which I desire to call attention. It is the, according to Dr. G. M. Garland (see introduction to his work on "Pneumono-dynamics"), "*scientific*" expression *negative pressure.*

The idea of *negative* force is absurd. Force is essentially positive. The term referred to is a very bad substitute for the popular "suction force." As every one knows, the active agent in "suction" is the pressure of the atmosphere outside of a more or less complete vacuum. To speak of *negative* pressure instead of *atmospheric* pressure is exactly equivalent to speaking of *the rising of the sun* when we mean *the rotation of the earth.* In common parlance either may be innocent enough; but anybody knows that in order to get a correct conception of astronomical facts we must discard the popular conception, and that it prevents confusion to discard also the popular expression.

In order to get any clear idea of the working of physical or any other laws, we must get a distinct conception of what, to use a tautological expression, the *positive* forces at work in producing a given effect are, and how they do their work. In order to do this, our language should express *exactly* the truth. To use a technical phrase which is based on a false idea —which involves a confusion between cause and effect—can only lead to mistiness and error. To call such a phrase "scientific" is a singularly flagrant abuse of terms.

Respectfully yours,

R. Van Santvoord, M.D.

66 West Eleventh Street.

RECTAL HEMORRHAGE IN INFANCY.

To the Editor of The Medical Record.

Dear Sir:—Early in the morning of the 20th of August I was called to deliver a woman of her second child—there having been an interval of ten years since her last confinement. The mother was a well-nourished, vigorous woman, without any visible taint of previous constitutional disease.

The labor being rapid and comparatively easy, she was, about an hour after my arrival, delivered of a female infant weighing about eight pounds, and of perfect formation in every particular.

Everything went on well until the child was three days old, when the nurse directed my attention to the unnatural quality of the infant's stools.

I found that there had been a copious discharge of dark, tarry matter of such a character as I never before witnessed.

Supposing from indications then existing, that a moderate laxative was needed, I directed that half a teaspoonful of castor oil be given. Within two hours from the time I left the house another call came, requesting me to proceed immediately to see the infant. I then found a condition of things of which I have never read or heard. There were frequent and large evacuations from the rectum, *now* of strawberry-colored liquid, and about the consistence of thin porridge. The little patient was rapidly becoming anæmic and very feeble.

I now concluded that there was rupture of a blood-vessel somewhere along the intestinal tract, and knew that in order to be able to arrest it, the point at which the opening existed must be found. Before deliberating on that question, however, I administered brandy freely in small quantities, wrapped the baby up in a warm blanket, and gave an injection of a strong solution of alum; but it no sooner entered the bowel than it was rejected, closely followed, for the first time, by as much as three ounces of pure blood. I substituted a solution of the pernitrate of iron for the alum, but with no better effect; and while making every effort to preserve the life, the child succumbed from the large and speedy flow of blood.

Being somewhat chagrined at my helplessness in the case when every one looked to me, as the physician, for aid, and being embarrassed as to the cause, I pressed for a post-mortem, and was gratified by the consent of the parents.

Early in the morning following death, in company with Mr. Thos. F. Breene, a medical student, I made an autopsy.

The body revealed nothing unusual till we reached the rectum. Beginning at the anus I traced up the blood-stained mucous lining of the bowel for about three inches, and here the blood-stain abruptly ceased. Carefully scraping the glazed covering from the interior of the bowel, in search of an orifice that might account for the flooding, I was shortly rewarded for my trouble by finding an erosion and opening in one of the larger intestinal veins. From this a small quantity of a sanguineous discharge escaped on the least pressure from above. The opening was of sufficient size to readily admit the passage of a bristle.

To determine whether it would be possible during life to remedy this condition, I returned the bowel, and found that had I correctly understood the seat of hemorrhage I might easily have checked it by passing the little finger up the rectum and pressing on its tip, or by packing with cotton batting and some styptic.

The interesting features in the case, which I believe

will justify me in offering it for publication, are, first, the absence of any author's description of this accident, either medical or surgical—a fact proving its extreme rarity; and secondly, the fact, as the autopsy revealed, of the nearness to the anus of the opening in the gut.

It is to be hoped that should a case of the kind described above ever come under the care of a practitioner who has seen or read these desultory remarks, it may be treated with intelligence and positive success.

Yours respectfully,

T. H. MANLEY, M.D.

LAWRENCE, MASS.

POISONING BY A BEE-STING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—On the 27th of August I was called to see Mrs. G——, æt. 70, a well-preserved old lady who generally enjoys robust health. I found her vomiting violently, and was informed that active emesis had been going on for some three hours with hardly an intermission; and that a short time before she grew sick she had been stung twice on the wrists by "an animated torrid zone," as Ralph Waldo Emerson terms an humble-bee. Pulse and temperature normal; skin bathed in perspiration.

I ordered a large mustard draft applied to the epigastrium; gave her a powder of bismuth and ox. cerium, and cracked ice *ad libitum*. Not having my hypodermic syringe with me, I went to my office for it; was detained half an hour. Upon my return, I found my patient had rejected everything taken, and was almost in a collapsed state, with feeble circulation, irregular action of the heart, and almost complete absence of pulse at the wrist. Temperature, 96° F. I gave her brandy and spt. ammon. aro. *per os*, and morphia sulph. hypodermically, had her cold extremities rubbed, hot applications to her limbs, and extra blankets put on her. The ammonia and brandy was promptly rejected, but, much to my relief, the morphia and the external agents used soon began to have a beneficial effect, and in about an hour reaction came on, and she was out of immediate danger. I gave her nothing but small bits of ice, which she was only able to retain by a great effort. I repeated the hypodermic injection at bedtime. She rested well during the night, and the next morning was able to take teaspoonful doses of ice-cold milk and lime-water; and though so much prostrated as to be obliged to keep her bed several days, has made a good recovery.

In *that invaluable repository of medical knowledge*, "Ziemssen's Cyclopædia," Vol. III., Bollinger gives an admirable description of infection by bee-stings, which I quote *in extenso*: "Wounds of this character have in rare instances been known to be followed by symptoms of blood-poisoning, and now and then by a fatal result. Such dangerous stings are mostly inflicted in certain special parts of the body, as, for instance, near the eyes, ears, and lips, and occur in feeble women or in old persons.

"The constitutional symptoms are usually nausea, faintness, great weakness, vomiting, præcordial distress, difficulty in breathing, also coldness of the extremities, and frequently petechiæ on the body, or the general eruption of a pale-reddish exanthema, either resembling that of measles, or in the form of wheals, with intense itching. Less frequently an excessive thirst is experienced, and a hoarseness increasing to an absolute aphonia.

"In place of the slight redness and swelling in the vicinity of the sting, there appear at times an extensive tumefaction and lividity, which may involve a large portion of the affected limb, or even the entire body. These phenomena last for several hours, disappearing in favorable cases speedily, or within a few days. In many instances death ensues within a quarter of an hour, or even a few moments.

"It is probable that in such cases the virus has been ejected from the sting directly into a blood-vessel."

None of the above phenomena were present in Mrs. G.'s case, except the constitutional symptoms, which were exactly as Bollinger describes them, and considerable tumefaction of the wrists in the region of the stings.

Respectfully yours,

WM. E. BRANDT, M.D.,
Late A. A. Surg., U.S.A.

HANOVER, INDIANA.

RETAINED PLACENTA OF NEARLY FIVE MONTHS' STANDING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I called to see Mrs. V. D——, June 12th, at which time she gave me the following history:

The last regular menstruation which she experienced terminated November 8, 1878. She was married November 12th of the same month; she did not menstruate again—or see anything—as she expressed it, until early in February, 1879, at which time she was taken suddenly with pain and excessive flowing.

The family physician was called, and he, supposing that the patient was threatened with miscarriage, prescribed for her and advised rest in the recumbent posture. No vaginal examination was made at that time. The patient was soon around again, and for two months following she was about the same as usual at her "periods."

For the next two or three months, however, she has suffered from metrorrhagia, which had continued up to the time I saw her. She was very much reduced in strength; never had fever or chills, some pain in the back, appetite very good, but feeling weak. On making a vaginal examination the uterus was found to be somewhat enlarged and retroverted, no tenderness on pressure over the fundus. I corrected the displacement, and knowing that the malposition of the organ might give rise to congestion, enlargement, and hemorrhage, I was at first inclined to consider that as the cause, yet the previous history led me to suspect some foreign body within the cavity of the uterus. I therefore concluded to use ergot, and if any subsequent hemorrhage ensued, to dilate the cervical canal and make an examination into the interior of the womb. Prescribed a half drachm of the fluid extract of ergot every four hours.

No bleeding occurred for a week, and the patient was feeling stronger, and without my knowledge or consent (which I should not have given), she took a long ride to a neighboring town, and while on the way back she felt some pain in the pelvic region, and found that she was flowing again. The pain was quite severe, and the hemorrhage continued until about 7 o'clock P.M., when an oblong body, about the size of a two months' fœtus, was expelled from the uterus. I was hastily summoned with the not very comforting assurance that Mrs. V. D—— was dying, which I found to be an exaggeration on arriving at the house, as my patient was very cheerful, not having in any respect the appearance of being "in

articulo mortis." On examination, I found the os dilated, but nothing within the fundus. The following day the uterus was firmly contracted and the os closed. There was no subsequent hemorrhage and no offensive discharge more than at menstruation. She gradually improved, and is now quite in her usual health. About the 1st of July she again menstruated, it being the time for the "monthly periods" as compared with the previous dates. On making a careful examination at my office a few hours after, of the substance discharged, I found it to be a placenta with its edges agglutinated, having assumed the shape of the cavity of the uterus, showing that it had remained within that organ some time after separation had taken place from its surface. The fact that the after-birth remained in the uterus for nearly five months after the loss of the fœtus, without decomposition, and with no serious results other than the effect which the metrorrhagia would naturally have upon the system, leads me to report the case; although the prompt action and undoubted efficacy of the ergot in producing uterine contraction, and consequent expulsion of its contents, are also of considerable interest.

Very respectfully,

G. H. LATHROP, M.D.

WURTSBORO', N. Y.

New Instruments.

A NEW APPARATUS FOR FRACTURED CLAVICLE.

BY THOMAS E. SATTERTHWAITE, M.D.,

NEW YORK.

THE method here described has been in use for nearly a year, and has given entire satisfaction in the two instances where it was applied. The three prominent indications in this accident are, obviously, to correct the downward, forward, and inward displacement of the outer fragment of the clavicle. Accordingly, the shoulder is to be carried upward, backward, and outward. The first and second of these manœuvres is successfully accomplished by the adhesive plaster method, but the third is usually neglected, because it is generally impracticable, unless the ordinary axillary pad is used, an appliance that cannot be borne without great pain and annoyance. The merits of this present plan are chiefly due to the *elastic force* which is brought into play. As is well known, this accomplishes more in overcoming muscular resistance, and with less convenience than any other force similar in amount.

The essentials of the appliance are, first, a soft rubber bag, and second, moderately stout elastic bandages in place of the ordinary adhesive ones that are commonly used, as in the method given to the public by Dr. L. A. Sayre (*American Practitioner*, July, 1871).

The bag is horse-shoe in shape, and forms a fulcrum when placed in the axilla, as in the ordinary V-shaped pad of Fox's apparatus. The humerus is now the long arm of the lever, and when brought close to the side of the body, withdraws the outer fragment of the clavicle from its false position and restores the bone to its former length. The elastic bandages which are next applied maintain the position when once secured, and keep the fractured ends in more accurate apposition. The bag (Fig. 1, *a*) should be moderately filled with water (about three-quarters full); it is then pressed snugly into the axilla and held there by a narrow rubber band which passes around the neck. (Figs. 1 and 2.)

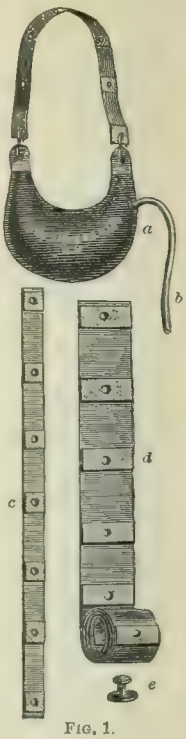


FIG. 1.

Water is better than air because it is less compressible and more apt to remain in the proper position. Water also adapts itself admirably to the inequalities of the surface, and makes continuous pressure over a broad area, so that it is hardly likely to cause ulceration, even when very firmly compressed. The required quantity of water may easily be injected through the tube (Fig. 1, *b*), which can be tied in a knot so that not a drop will escape. The elastic band about the neck keeps the pad in place, whatever position the head or body may assume. Sometimes rubber bands from the side of the bag may be passed around the chest as an additional means of keeping it in place.

The other parts of the apparatus are simply two strips of gum bandage (Martin's), reinforced at intervals by transverse strips of cotton cloth (Fig. 1, *d*), through which round holes are pierced for the collar button (Fig. 1, *e*), which is used to hold the bands in position. They are adjusted as follows:

A loop of the bandage is first passed round the lower part of the arm (Fig. 3, *a*) and securely fastened behind with two collar buttons; it is then passed around the waist, its course being spirally

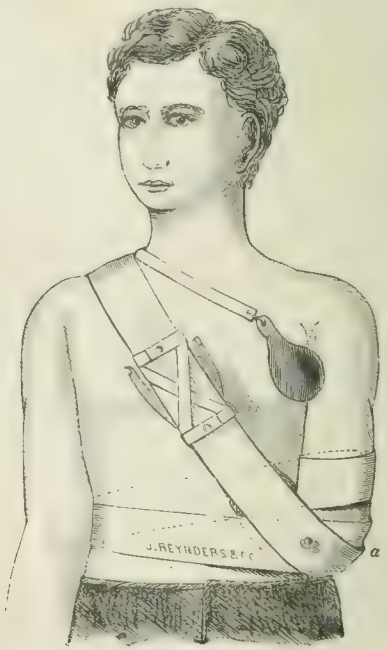


FIG. 2.

downward (see Figs. 2 and 3); returning, the point of the elbow is caught in the soft rubber which forms a partial sling for it (Fig. 3, *b*); then it is carried over

the shoulder of the opposite side; thence returning (Fig. 2), and passing again over the point of the elbow (Fig. 2, *a*) it completes the sling. Two collar-buttons finally secure it on the posterior surface of the arm (Fig. 3, *a*). The hand of the affected side is attached to the band in a way that is comparatively easy and comfortable, by the narrower elastic strip (Fig. 1, *c*), with figure-of-eight turns (Fig. 2). In the

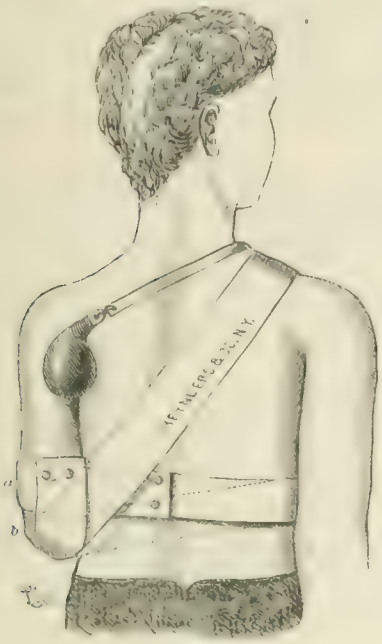


Fig. 3.

two instances where this plan was tried, the apparatus was worn with very slight inconvenience, much less than in any previous cases the writer has seen. The resulting deformity was very slight, and consolidation was accomplished in about four weeks. No excoriation takes place if the bandages are properly applied. The apparatus is *clean* and *light;* once in proper position it should not need any readjustment.

50 E. 31st St.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 13th to 20th, 1879.

Adair, Geo. W., Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon, Fort Mackinac, Michigan. S. O. 161, Dept. East, Sept. 13, 1879.

Middleton, P., Capt. and Asst. Surgeon. Relieved from duty in the Department of the East, to take effect Oct. 1, 1879, and to report to the Commanding General Department of Texas for assignment to duty. S. O. 215, C. S., A. G. O., Sept. 17, 1879.

The American Academy of Medicine.—The Third Annual Meeting of this Society was held at the rooms of the New York Academy of Medicine, on the 16th and 17th of Sept., 1879.

The following officers were elected for the ensuing year: *For President*, F. D. Lente, M.D., of New York. *For Secretary*, R. J. Dunglison, M.D., of Philadelphia. The next meeting will be held in the city of Providence, beginning on the third Tuesday in September, 1880.

Medical Items and News.

Contagious Diseases - Weekly Statement.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 20, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 13, 1879.	0	17	23	1	19	15	0	0
Sept. 20, 1879.	1	8	41	1	38	13	0	0

The Yellow Fever.—The number of new cases of yellow fever developed in the city of Memphis from September 16th to September 23d inclusive was 85, and the number of deaths that occurred was 33. The total number of new cases for this year to September 24th is 1,267, and the total number of deaths 409.

September 20th.—The indications seem to be that the pestilence is losing its power, yet the health authorities have officially advised that refugees continue to remain away from the city.

It is seventy-two days since the first case was developed this year, and the fact that the disease still continues in existence disposes of the theory that yellow fever will, without the influence of frost or other destroying agency, expend its force within sixty days.

Dr. Charles Abbott, of Winterport, Waldo Co., Maine, died August 19th, at the age of 55 years. He graduated at the Medical Department of the University of New York in 1849, and settled in his native town. He served as surgeon of the Twenth-sixth Regiment of Maine Volunteers, and was a prominent physician and surgeon in Eastern Maine. His father, Dr. Edmund Abbott, settled in the same town in 1804 and practised there fifty years. The son of Dr. C. Abbott, Edmund Abbott, M.D., was a graduate of New York University, class of 1879, and takes his father's place.

A New Quarantine Station on the Delaware River.—The following communication was read at the last meeting of the Philadelphia Board of Health on Monday, September 8th, viz.:

National Board of Health,
Washington, D. C., Sept. 6, 1879.

To the President of the Board of Health, Philadelphia, Pennsylvania:

Sir.—I have the honor to transmit herewith a copy of Bulletin No. 10, containing a copy of the rules and regulations drawn up by this Board, and approved by the President, August 22d, relative to the establishment at the mouth of the Delaware River, in the vicinity of the Breakwater, a quarantine station of observation, for the purpose of inspecting vessels entering the Delaware River. I have also the honor to inform you, that the President has directed the detail of Medical Inspector J. C. Spear, U. S. Navy, to enforce these regulations, and that he will be stationed at the Breakwater for that purpose. Upon reporting to this office for orders, he will be instructed to consult with you prior to taking station at the Breakwater. Yours, etc.,

J. S. Billings,
V. P. National Board of Health.

The discussion which followed the receipt of this communication was lengthy. The Board were unanimous in believing that if the rules thus established were carried out the trade of the port of Philadelphia would be ruined by the unnecessary detention to vessels and passengers coming from abroad, as all vessels would be detained at the Breakwater until it

suited the national officers to make the inspection. At the close of the meeting a resolution was adopted requesting the National Board of Health to suspend action in the matter until notified of the action of the Board of Health of Philadelphia.

The Philadelphia *Public Ledger* of Sept. 9th, in an editorial headed "Too Much Quarantine," deplores the action of the National Board of Health as an "error in its beginning and conclusion," and points out that the choice of the Breakwater as a site for the new quarantine is most unfortunate, it being a most impracticable place for the medical inspection of incoming vessels, the quarantine station at the Lazaretto, already existing, enabling the sanitary inspection of vessels to be made with the least possible delay to commerce.

The boarding station at the old quarantine is within easy reach of the channel, so that vessels from infected parts can be boarded without the need of their stopping at all, whereas, at the Delaware Breakwater all vessels would have to be brought to anchor, and vessels arriving at dusk would have to lay over until the next day.

Social Science Association.—This association held its annual meeting at Saratoga on Sept. 11th, 12th, and 13th. A number of papers of interest to the medical profession were read at its sessions, sanitary matters especially being the subject of discussion.

Mr. Angell, of Boston, read a paper upon "Adulterations in Food and Drink." A similar contribution was made by him a year ago, and was noticed by this journal. This year, in the discussion that followed his paper, a number of his statements in regard to adulterations were contradicted.

Pres. F. P. Barnard read a long and very exhaustive article on "International Coinage, Weights, and Measures." He showed the lack of uniformity in our present system, and urged with much enthusiasm the adoption of the metric.

Col. Geo. E. Waring, Jr., of Newport, read a paper on the "Sewerage of Villages and Cities."

"The Sanitary Condition of Tenement-Houses" was the theme of Charles P. Russell, M.D., of this city; and this was followed by a paper on "The Tenement-House, and the Latest Improvements Therein," by Charles F. Wingate. A discussion upon the value of uniting sanitary and poor-law Boards followed, in which the success of such a system as at present existing in England and Massachusetts was shown.

Dr. White read a paper on "Yellow Fever," and Charles L. Brace, of New York, a long dissertation on "The Care of Poor Children."

Quackery in New York.—At a meeting of the city aldermen, September 15th, the following resolution was introduced and referred to the Committee on Laws:

Resolved, That the Counsel to the Corporation be requested to report to the Board if there is any law of this State prohibiting persons not graduates of medical colleges from practising as surgeons and physicians in this city; if not, if it is legally in the power of the Common Council of this city to pass an ordinance to prohibit such persons from practising by imposing a penalty for violation of its provisions; and if such power exists in the local authorities, that he transmit to this Board the draft of such an ordinance, fixing the penalty at $100 for every offence.

Visitors from Abroad.—Dr. Henry W. Acland, who is visiting this country, and who took a prominent part at the recent meeting of the American Social Science Association, spent several days in New York last week. He attended a meeting of the Board of Health, and afterward went through several of the city institutions. Dr. Acland has long been prominent as a sanitarian, and has written many papers on sanitary subjects.

Preliminary Education for Medical Students.—This subject was discussed again by Dr. Lewis H. Stiner, at the fourth annual meeting of the American Academy of Medicine, recently held, and the same lamentable facts in regard to medical education were presented. Dr. Stiner asserts that the old-fashioned college curriculum furnishes the best preliminary training.

Collecting Doctors' Bills.—The sorrows and the failures attending this interesting part of medical practice attracted the attention of the Northwestern Medical Association at its last meeting. To remedy the evil it proposes that on the face of the bills shall be printed: "Bills rendered monthly, or within thirty days after service." On one end is printed: "Ten per cent. discount will be allowed if payment is made within thirty days. Lawful interest will be charged after thirty days." On the other end is the name of the collector chosen by the Association.

The New York Academy of Medicine.—The new library hall of the New York Academy of Medicine will be dedicated on the evening of October 2d, to which the profession of this city and of Brooklyn are invited. Short addresses may be expected from Dr. Acland, Reg. Prof. of Oxford University, Mr. Callender of London, Prof. Gross of Philadelphia, Dr. J. S. Billings of Washington, and other distinguished members of the profession.

The American Gynecological Society.—At the Fourth Annual Meeting of this Society, held in the city of Baltimore, September 17, 18, and 19, 1879, the following officers were elected for the ensuing year: *For President*—Dr. J. Marion Sims, of New York. *For Vice-Presidents*—Dr. Robert Battey, of Rome, Ga., and Dr. W. T. Howard, of Baltimore, Md. *For Members of the Council*—Dr. W. Goodell, of Philadelphia; Dr. E. W. Jenks, of Chicago; Dr. A. D. Sinclair, of Boston; and Dr. A. J. C. Skene, of Brooklyn. *For Secretary*—Dr. James R. Chadwick, of Boston. *For Treasurer*—Dr. Paul F. Mundé, of New York. The next annual meeting will be held in the city of Cincinnati, beginning on the *first* Wednesday in September, 1880.

Quinine, Solution of in Stomach.—A weak tartaric acid lemonade taken after quinine is said to hasten solution and absorption, and relieves gastric irritability.

BOOKS RECEIVED.

Eye-sight, and how to Care for it. By George C. Harlan, M.D. Health Primer. Philadelphia: Lindsay & Blakiston. 1879.

First Step in Chemical Principles. By Henry Leffermann, M.D. Philadelphia: Edward Stein & Co. 1879.

Transactions of the College of Physicians and Surgeons. Third Series, Volume IV. Philadelphia: Lindsay & Blakiston. 1879.

Œuvres Chirurgicales et Médicales du Docteur. G. Guillon (père). Paris. 1879.

Transactions of the Medical Association of Georgia for 1879. Thirtieth Annual Session.

Original Lectures.

CLINICAL LECTURE ON DISEASES OF WOMEN.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

BY T. GAILLARD THOMAS, M.D.

CASE I.—*Laceration of the Cervix, with Subinvolution and Retroflexion.*

GENTLEMEN:—Our first patient to-day is Mrs. Ellen C——, a native of Ireland, and thirty-seven years of age. She has been married thirteen years, and has had seven children and two miscarriages. Her last miscarriage occurred two years ago.

"How long have you been sick, Mrs. C——?"

"Two years."

"How old is your youngest child?"

"Three years."

"What have you complained of during the last two years?"

"A constant pain in the back."

"What else?"

"Pain in the left side." (The patient here placed her hand over the region of the left ovary.)

"Have you had pain anywhere else?"

"In the left groin."

"Is there anything else that has troubled you?"

"I lose too much blood at the time of my monthly sickness."

"Do you have the whites?"

"No."

"Is there any other trouble?"

"My appetite is very poor, and I suffer from headache."

"Are you able to attend to your work?"

"I am obliged to work, but cannot do it nearly as well as before."

You observe that in this case, gentlemen, we have all the ordinary symptoms of uterine disease, with the single exception (according to the patient's account) of leucorrhœa. Without her apparently being aware of the fact, however, this symptom is also present in quite a marked manner, as I discovered on making a vaginal examination; so that nothing is lacking to complete the evidence of the existence of such trouble.

Let me now briefly recapitulate the history of the case as it has been given to us. Three years ago this patient was a perfectly healthy woman; but two years since she had a miscarriage, and this was followed by (1) pain in the back, (2) pain in the left iliac fossa, (3) pain in the left groin, (4) menorrhagia, (5) headache and loss of appetite, (6) partial inability to attend to daily work, and finally I add leucorrhœa. I want you to remember in this connection what I told you in my last didactic lecture, that in every case there are a great many links in a chain, as it were, and would urge you as strongly as I can to always try to connect these in a philosophical manner, in order that you may learn to take as broad a view of uterine disease as possible. You must try to look at the symptoms as so many evidences of certain troubles in the system, and endeavor to found on the symptoms a logical opinion as to the general nature of the case in as full and perfect a manner as you are able. The case now before us will serve as an excellent illustration of my meaning.

In the first place, when I made an examination of the patient, my finger came in contact not with an ordinary cervix, but with one whose torn lips were widely gaping, so that it passed at once up to the os internum. In addition, I found that the exposed surface was covered with a thick, tenacious mucus, because the Nabothian glands, unprotected, as they should be, by the cervical walls, were continually pouring forth a free discharge. Now some men, who take a very narrow view of uterine disease, are in the habit of seizing upon one of the links of which I have been speaking without regard to any of the others, and basing their diagnosis upon this alone. Such a diagnostician would be content with the examination as thus made, without troubling himself to go any further, and would declare the case to be simply one of laceration of the cervix.

But this was not all that I discovered by my examination. On practising conjoined manipulation, I found that the body of the uterus was not in its normal position, and ascertained that the organ was in a state of marked retroflexion. A second diagnostician of the superficial character to which I have alluded, might therefore pitch upon this displacement, and call the case merely one of retroflexion.

But still further, in making this conjoined manipulation, I discovered that the uterus was greatly enlarged, and exquisitely tender to the touch. Here, then, would be a grand opening for a third diagnostician, who would declare the case to be one of chronic metritis, and say that all the patient's suffering was due to the inflammatory trouble present.

But this is not all yet. As I continued my examination, I received the impression that the perineum had been completely ruptured through; but I afterwards ascertained that instead of this, it was still intact, although it was perfectly worthless. This was because it was altogether so weak and flaccid as to be quite incapable of supporting the anterior wall of the vagina, as it ought to do. It then occurred to me that something had gone wrong with the perineum as well as the cervix in labor.

Is there, then, chronic metritis here? Not at all. Either after the last miscarriage, or labor, (and more probably the latter,) the uterus did not return to its normal size, but was left in a condition of subinvolution, as it is called. If it occurred after the labor at full term, it was, no doubt, the cause of the more recent miscarriage. The state of the organ is one of hyperplasia, a hypertrophy of tissue requiring a larger supply of blood, and involving an alteration of the uterine nerves, which produces the tenderness of the organ that has been noted. In the same way the perineum did not undergo proper involution after the labor, but was left in the weak and flabby condition in which we now find it.

There are two very important points in the case which it is necessary that we should determine, and these are, *first*, What is really the matter with the patient? and, *second*, What can be done to cure her? One is just as important as the other; and if the true nature of the case is not understood, there is no hope of obtaining a cure, unless, indeed, (which is altogether improbable,) you should, by some lucky accident, hit upon the right method of treatment. I propose now to show you briefly what I believe to be the connection of the various links of symptoms to which your attention has been called in this case.

At the time of the patient's last labor at full term, the child's head ripped the cervix on each side, and,

the delivery over, the woman did not get well as she ought to have done, but had what the monthly nurses call "a bad getting up." This was because the lochial discharge (composed, as it was, of disintegrating uterine elements floating in a sanious fluid) acted as an irritant as it poured over and bathed the surfaces left raw by the process of parturition. How irritating this fluid is, is shown by the fact that nurses not infrequently suffer from erysipelas or angeioleucitis simply from having it temporarily in contact with their hands when there is any little abrasion of the skin present. On account of the irritation thus produced, involution was, no doubt, interfered with, and at the end of two months, when it should have already returned to its original size, the uterus was still very large and flabby. Neither did the perineum undergo involution as it should have done.

On my inquiring particularly of the patient if she did not have a bad "getting up" after the birth of her last child, she replied that she did not notice anything out of the way, and got up about the same time as usual in her other labors. But this statement does not in the least invalidate what I have just said. There are many well-authenticated peripatetic cases of typhoid fever on record, and sometimes actual perforation of the intestines has taken place without the patient's knowing that he was affected with the disease. So here there has, no doubt, been septicæmia present, but it has probably been of such a low grade that the patient was not aware that anything was wrong with her. This, then, is the first link in our chain.

Now when the patient got up after the labor, and went about her usual avocations, instead of having in her body a uterus of small size, and composed of new tissue, (as is the case after normal parturition) she had there a large and flabby one made up of old material. The consequence was, that on account of its great weight and atony it gradually fell back in the pelvis, and then the accumulation of fæcal masses in the intestines pressed it still further and further down. You are aware that aneurisms are sometimes treated by flexing the limb on which they occur, in order to diminish the supply of blood to the part. So this flexion of the uterus no doubt interfered decidedly with the vascular condition of the organ, and it acted very much as ligating it with a loose string might; that is, it permitted a full supply of blood to reach the uterus by means of the arteries, but cut off, to a great extent, the return of the blood through the veins. The condition of the uterus thus occasioned is what has improperly been called metritis.

In this manner the organ is kept in a turgid condition all the time, and whenever the menstrual period comes around, the flow of blood is abnormally great. In this case the patient tells me she menstruates every two weeks, and at each period loses a large quantity of blood. This is because the uterus is so engorged that the venules and arterioles rupture very easily. Another symptom also accounted for by the constant hyperæmia of the uterus is the leucorrhœa, although this is in part due also to the abnormal condition of the cervix.

What, then, is really the matter with the patient? If you want to be a pathologist who, to use a not very elegant expression, "cannot see any further than his nose," you can take any one of the above conditions and make a diagnosis of it, such as "chronic metritis," laceration of the cervix, retroflexion, "endometritis," uterine catarrh, etc. Different observers might fix upon any one of these, and each would have a certain amount of truth in his opinion of the case; but all such would be but poor gynæcologists and superficial pathologists. When in any case I am called upon for a written opinion, I am usually very careful not to base my diagnosis upon one point alone.

Having made this matter sufficiently plain to you, as I trust, I pass on now to the subject of treatment; and I do not hesitate to say most emphatically that the patient can be perfectly cured of all her troubles, provided she is able to avail herself of all the remedial measures which may be suggested for her benefit. In the first place, she should be put to bed and treated with gentle cathartics, in order to relieve the bowels. She should take an almost exclusively fluid diet, and her vagina should be thoroughly syringed with hot water perhaps as often as three times a day, and, at all events, every night and morning. This is on the same principle that you would keep an inflamed eye bathed with warm water, or would apply warm poultices to a paronychia. After a week of this treatment, the parts would be in a decidedly less irritable condition than at present, and the patient being placed on her side, with her arm thrown behind her, the medical attendant should place two fingers against the fundus and gradually press up the displaced organ into its proper position. This having been accomplished, an appropriate pessary should be introduced for the purpose of keeping it in place, and, if necessary, the patient might then be allowed to get up and attend to her usual duties. It is decidedly the *best* method, however, to keep her confined to bed, and especially if the physician is not a very experienced gynæcologist; because there is always a little risk in putting in a pessary in any case where the uterus has long remained out of its proper position. But the chances are that the instrument will be perfectly tolerated, and when the woman gets up to walk about, it will be impossible for the organ to fall back into its former malposition. You have now taken away the string that has so long constricted it, and, as a consequence, both the venous and arterial blood circulate through its vessels. At once the "endometritis" begins to get better, and in forty-eight hours after the pessary has been introduced, the patient will probably tell you that she feels more comfortable than she has for the last two or three years.

In two weeks more, the vagina in the meanwhile having been kept well syringed with hot water, the operation for laceration of the cervix, as described and carried out at our last clinic, should be performed; the sutures being allowed to remain in position for nine days. A focus of irritation will have been thus removed, and the leucorrhœa will afterwards be found to have almost, if not entirely, disappeared; the lining membrane of the cervix being no longer everted, and so exposed to the irritation of the air, coitus, etc.

Almost all the symptoms, therefore, will presently disappear, viz.: the backache, the leucorrhœa, and the pain in the left iliac fossa and groin, due to the tension on the round and broad ligaments. Only one will remain, the menorrhagia and too frequent menstruation. But it is the flexure of the uterus which has kept up the engorged condition from which this has resulted, and as time goes on this symptom will also be happily removed. Now you have really done very little, and yet the patient is getting well rapidly. By the end of three months she will probably think it quite unnecessary to continue treatment any longer, and she will have been cured for the reason that you have taken a rational and philosophical view of the case. This is no fancy sketch, I assure you, and I only hope that the points to which I have called your attention have been

impressed upon your minds with sufficient force and clearness, so that you will not fail to remember them when you come to meet such cases in your practice.

There is, however, something very discouraging in the practice of a clinic like this, because in reality almost nothing in the way of treatment can be properly carried out. It is ordinarily quite impossible for patients of the character we have here to remain in bed, and if we put in a pessary, the chances are that the woman will be standing on her feet for eighteen out of twenty-four hours afterward, and will come back the next week with the report that it has done her a great deal more harm than good. In the great majority of instances the only hope for a permanent cure is for the patient to go into a hospital; but, alas, this too is generally impracticable, for it is impossible for her to give up even for a short time the care of her house and family.

CASE II.—*Anteversion, Fungoid Degeneration of Uterine Mucous Membrane, and Sterility.*

Mrs. Alice C——, aged twenty-two years; has been married five years, and has never been pregnant.

"How long have you been sick?"

"I cannot fix on any definite time."

"Has it been a source of trouble that you have not borne any children?"

"Yes." It is principally to find out the cause of her sterility, if possible, that she has come here to-day.

"Do you suffer from any pain?"

"Only a little in the back."

"Are you regular in your monthly periods?"

"I lose too much blood then."

"How long do you stay in bed at such times?"

"I do not go to bed at all."

"How long does your sickness last?"

"About a week."

"Do you have the whites?"

"Not now; but I used to have them quite badly."

The chief thing in this case would seem, then, to be the sterility.

When I came to make a vaginal examination here, I found the cervix away back in the hollow of the sacrum, and the body of the uterus, consequently, lying forward. On account of the history of menorrhagia, I was led to apply the curette to the uterine mucous membrane, and I quickly withdrew a perfect specimen of the fungoid growths to which I have already several times called your attention. Their presence fully accounts for the too great loss of blood at the monthly periods, and this condition of the endometrium and the anteversion were all the pathological points that I noticed.

Now how can we account for the symptoms? *First*, the backache is to be attributed in part to the congestion incidental to the malposition of the uterus, and in part to the dragging on the ligaments, as well as the direct pressure of the uterus. *Second*, as to the sterility. In the anteverted position of the uterus, the posterior wall of the vagina acts as a valve which covers the os externum, and so forms a mechanical bar to impregnation. Then uterine catarrh, which results from congestion, such as is caused here by the displacement, is a frequent cause of sterility. As to the menorrhagia, it has already been seen to be due to the fungoid proliferation of the lining membrane of the uterus. Such growths not infrequently exist in women who have never borne children, and I have met with them in girls of only sixteen. They may occur, indeed, in any uterus that has been kept congested for some time.

The question now arises, can we cure this patient? I think we can; but it will certainly take a considerable time to do it in. Chronic uterine catarrh, like that of other mucous tracts, is apt to be very obstinate. The first thing to be done is to put the uterus in proper position, for there is no other method of relieving the existing congestion. It should then be kept in place by means of an anteversion pessary, and vaginal injections should be constantly employed to keep the parts free from irritation. After the next menstrual period the endometrium should be carefully and thoroughly scraped with the curette, and all the fungoid growths removed. By these measures I should hope to remove both the menorrhagia and the leucorrhœa. There is one thing that I am a little doubtful about, and that is the point concerning which the patient is most anxious, viz., the sterility. This will undoubtedly be the last symptom to disappear, and we must not be too sanguine in reference to it.

CASE III.—*Carcinoma Uteri.*

Mrs. Ernestine H——, a native of Germany, and thirty-four years of age; she has been married eleven years and has had seven children, but no miscarriages. As the patient is entirely unable to speak English, I am obliged to avail myself of the services of Dr. Körner, who has kindly consented to act as interpreter. From him I learn that she has been complaining ever since the birth of her last child, which occurred two and a half years ago. The first symptom was a pain in the back, which afterward extended down the sides of the limbs. The most serious symptom, however, has been profuse hemorrhage, which made its appearance not long after the birth of the child referred to. Immediately after the woman got up there set in a very abundant leucorrhœa, and in one month more it was replaced by hemorrhage. This has continued to a greater or less extent ever since. The symptoms then are few in number, consisting of constant metrorrhagia for two and a half years, following a labor, pain in the back, etc., and marked depreciation of the general health, but they are very significant indeed.

I will now show you on the blackboard the result of the vaginal examination which I made in the case. The patient lying upon the back, I found the uterus in its normal position, but instead of the normal cervix there was a gaping cavity, such as I now roughly represent to you, with a sharp edge. As I pressed on its surface it seemed crisp to the touch, and to have numerous indurated projections, which felt very much like shot half embedded in the tissue, while the mere passage of the finger over it excited the most profuse hemorrhage. While making the examination I noticed also that the odor from the vagina was very offensive. It was not simply the smell of decaying flesh, but one that is indescribable and much more disagreeable than that.

This was all that I discovered; but, unfortunately, it was a great deal too much, for I recognized in an instant that we had here to do with an entirely hopeless condition—true carcinoma uteri. The patient's doom is irrevocably sealed. Under the most favorable circumstances I should think she might perhaps live a year longer, but hardly more than that. As she is entirely unable to understand a word of English, of course I am expressing myself much more freely in her presence than I would otherwise have done.

A year ago, a physician recognizing in the patient the condition known as cauliflower excrescence (which, by the way, I would have you understand is just as fatal as any other form of cancer), very properly amputated the cervix by means of the galvano-caustic

wire. In June last the operation was repeated, and now, at the end of a year from the first one and four months from the second, we find the cicatrix in the marked cancerous condition which I have shown you on the blackboard. Then, you perhaps will say, the medical attendant made a mistake in performing the operation at all. By no means; because, although it has not cured the disease, I have no doubt that it has materially prolonged the woman's life. There is a patient of mine who had the same trouble, and upon whom I performed a similar operation nine years ago. Being a widow at the time, she married again very happily, and she is to-day apparently in excellent health; but still I firmly believe that she will eventually die of cancer. This is a very exceptional case, but I have known a number of others to live as long as three years. Sooner or later, however, the disease, in my experience, always comes back again.

There is a physician's wife in this city who was in a most dreadful condition a year ago, upon whom I performed amputation of the cervix, and who has since then been perfectly well. Up to the present time there has been no new development of the disease whatever, but I am almost certain that during the next twelve months it will return. Yet who shall say that we have not gained a great deal by this happy respite. I am therefore strongly in favor of the operation in properly selected cases. In the present instance, however, no operation whatever would now be of the slightest use. What then; shall we let the woman die without any effort to prolong life or render her comfortable? By no means. There are three things which we can do, which will be of the very greatest service to her, viz.:

1. Control the hemorrhage.
2. Relieve the pain.
3. Disinfect the offensive discharge.

The plan that should be pursued here is as follows: first, the vagina and uterine cavity should be rapidly cleansed with absorbing-cotton, and then chemically pure nitric acid should be thoroughly applied to all the diseased surface. This will undoubtedly control the loss of blood for a time, and it may perhaps be unnecessary to repeat the application for as much as three months.

For the relief of the pain the. treatment is all summed up in one word, and that is *opium*. This divine drug entirely overshadows all other anodynes, and you are merely trifling with your patient when you substitute for it hyoscyamus, chloral, or any other medicine whatever. If it should disagree with her at first, you can easily educate her to become an *opium-eater*, and nothing short of this should be aimed at by the medical attendant. There is a natural tendency in the human race to take to opium, as there is to alcohol, and in such a case as this you can have the opportunity of ministering to this natural craving with a perfectly clear conscience. You will find, therefore, that the patient who at first perhaps could not take even a small dose of opium without the most unpleasant consequences, will soon be looking forward with absolute pleasure when the drug is to be administered. If it does not suit her stomach, however, give it by the rectum; and should that disagree with her also, you have that most glorious method of relieving human suffering ever invented — the hypodermic syringe—left to fall back upon. It should be your object to control the pain at all hazards; and when in any case I hear the physician say that opium will not do this, I am very certain that the fault is with him and not with the drug, because he has never learned how to use it properly. Opium is just as sure to control pain as a leaden ball shot from a pistol or rifle is to kill a man if it is put into the right place.

The third indication is to overcome the disagreeable odor of the discharge; and this is to be accomplished by very copious vaginal injections, three times a day, of water containing a sufficient amount of thymol or carbolic acid to act as a disinfectant, and some such simple astringent as alum or sulphate of zinc.

Under this treatment you will be surprised to find the patient improving so rapidly that she will think she is certainly getting well. Many instances are on record in which the physician has also been deceived by the apparent recovery of his patient, and has rashly rushed into print in reference to the case, only to find his hopes suddenly dashed to the ground by its fatal termination.

In such cases it is food that the patient requires, in as large quantities as can possibly be digested, and not medicine; for it is useless to give iron, the hypophosphites, and other remedies which have been lauded as of the highest service. The patient is really starving in the midst of plenty, because her food is not converted into blood. And this is true of both animal and vegetable diet. Of all articles of food that I am acquainted with, milk is by far the best adapted for these cases. Some years ago a certain quack obtained a great reputation in the treatment of cancer of the uterus, simply because he employed an almost exclusively milk diet in his cases. At first the patient should take about six ounces of milk every three hours, and afterward the same quantity every two hours during her waking hours. In some cases, however, it is necessary to begin with only two ounces, or even one ounce. As soon as practicable, a large amount of cream should be added, so that the patient may get about two ounces of cream to every four ounces of milk. It will be better still if she can take three ounces of each every two or three hours; and it is a good plan to keep some of it by her bedside, in order that she may drink of it whenever she happens to wake through the night. By such a course of treatment as this, I have not the slightest doubt that the patient can be very greatly improved; but she will not, alas! be cured. A great deal will be gained, however, if by this means we can remove some of the evils from which she is suffering to-day, thus prolonging her life and ministering very materially to her comfort.

Codeine in the Treatment of Diabetes.—The great value of opium in diabetes has long been recognized, and its use has suggested that of codeine, which must now be placed amongst the drugs that occasionally do much good in that disease. A case treated with it has been reported to *Paris Médical*. The patient, a woman aged twenty-three, was put on a diet of skimmed milk, eggs, beans, and green vegetables. The specific gravity of the urine was 1043, and the daily amount of sugar, ʒ ss. Various drugs were given without any permanent amelioration. Finally, codeine was administered in grain-doses twice a day. The patient began at once to improve, gaining flesh and passing less urine. In two weeks the amount of sugar passed was only about two drachms.

Scleroderma.—A case of this affection about which there has recently been much discussion, has been published by Dr. Armaingaud, of Bordeaux. It was treated with much success by the continued current after iodide of potash and vapor-baths had entirely failed.

Original Communications.

ON THE VALUE OF THE GALVANIC CURRENT IN EXOPHTHALMIC GOITRE,

As Illustrated in the Treatment of Four Cases.

By A. D. ROCKWELL, M.D.,

of New York,

Electro-therapeutist to the New York State Woman's Hospital, etc.

The opportunities for post-mortem examination in cases of Graves's disease have been so few that its pathology is far from being satisfactorily ascertained. It is true, that very positive results have rewarded certain researches into the condition of the sympathetic.

In eight cases structural change was discernible, although in a number this change was so slight as to be hardly recognizable, while in four cases not the slightest lesion could be detected. It seems fair to conclude, therefore (accepting the neurotic theory of the disease, rather than Basedow's hypothesis of a primary chlorotic affection, or the cardiac theory of Stokes), that the symptoms of exophthalmic goitre may proceed from purely functional, as well as from organic diseases of the sympathetic.

In those cases that resist every form of treatment, it is to my mind quite probable that examination of the nerve would reveal greater or less diminution of the nerve elements, together with gray infiltration and increase of the connective tissue, since these were the most important changes observed in the eight cases alluded to above, while results such as I am about to record can only be obtained when the condition is a neuroses pure and simple.

Case I.—The patient, John L——, was a pale, slim man, aged 29, and by occupation a compositor. The three cardinal symptoms of the disease, viz.: exophthalmus, swelling of the thyroid gland, and palpitation, were present in a marked degree, and in addition there was a want of harmony between the movements of the upper eyelid and eyeball, a phenomenon first observed by Von Graefe, and by him regarded as pathognomonic.

The history and antecedents of the case are as follows: The mother, now deceased, suffered from epileptic seizures from the earliest remembrance of our patient, while an older sister was the victim of frequent and severe attacks of hysteria. The father had been intemperate, and died of delirium tremens. It would thus seem that we had in this history ground for a belief in the importance of the relation of hereditary influences to these conditions.

The health of the patient up to his twenty-fifth year had been uniformly good, and the only evidence of a neurotic predisposition was an occasional and unexplainable tendency to insomnia for a year or so previous to the first symptoms of his disease. I first saw the man July 6, 1879.

During the summer of 1878 he observed a slight swelling of the thyroid; very soon after, considerable palpitation; and later still, protrusion of the eyeballs. It is to be noted in passing that the order of the onset of the symptoms is unusual, the thyroid enlargement usually being second in order of development instead of first.

On my first examination I found the gland enlarged to about the size of the fist of a child of ten years, the pulse beating in frequency 125 to the minute, while the protrusion of the globe of the eye was as great as in any case I have seen. By subsequent examination I found that the pulse ranged from 110 to 130. On three different occasions, where the axillary thermometer was used, it marked 100°, 101°, 100.4°. The appetite of the patient was poor, his secretions disordered, and his general strength impaired. After some preliminary medication of a corrective nature, I gave the ordinary prescription of quinine and iron, and at the same time began the applications of the galvanic current. My method of application was as follows: Placing the cathode over the cilio-spinal centre, and the anode in the auriculo-maxillary fossa, I gradually drew the latter, after a few moments of stabile treatment, along the inner border of the sterno-cleido muscle, to its lower end. Removing now the anode to the position occupied by the cathode, and the cathode to the pit of the stomach, I would continue the treatment with a greatly increased strength of current for some moments longer. My ordinary measurement of current strength is by the "shunt" galvanometer of the long coil variety.

During the first portion of the operation described, the current was sufficiently strong to deflect the needle 15°; during the last half of the operation, the deflection was increased to 30°. In other words, as a freshly charged zinc-carbon battery of regulation strength deflects the needle about 1° for every cell, a current strength equivalent to fifteen and thirty fresh cells was used. In point of fact, however, as some deterioration in activity through previous using had occurred, from twenty to forty cells were employed. The results of this treatment were immediate and of the most positive character.

The force and rapidity of the heart-beats were greatly modified; and accompanying, or rather following, by a week or ten days, this subsidence of the violent palpitation, there was a very noticeable decrease of the exophthalmus. A decrease in the size of the thyroid was not observed until some days after, and disappeared with much less rapidity than the other symptoms. In order to hasten the cure, I very carefully performed electrolysis on two occasions, and with evident benefit.

At the date of writing, Aug. 20th, after having received fifteen (15) applications, the patient has, so far as relates to the palpitation and exophthalmus, entirely recovered.

The goitre has decreased in size fully two-thirds, and is quite hard and firm, a change which is to be attributed, in all probability, to a hyperplasia of the glandular tissue taking the place of the dilated vessels.

From this time forward the important point in this somewhat remarkable case will relate to the degree of permanency of the apparent recovery.

I place the following case on record, not only because of the benefit accruing from treatment, but as illustrative also of two rare symptoms in connection with Graves's disease, viz., 1st. Dilatation of the pupils; 2d. Swelling and pulsation in the region of the solar plexus. I am not, indeed, aware that any case of Graves's disease, in which this last symptom may have possibly been observed, has ever before been published.

Accepting the theory of a disturbance of the sympathetic as a cause of this affection, it is not remarkable that its lower, as well as its upper ganglia, should be the seat of disease, sufficient to cause a dilatation of the vessels branching from the cœliac axis, analogous to that observed in the arteries of the thyroid gland. In consideration of the rarity of this symptom, therefore, it is interesting to recall the fact, that in the eight cases where changes were observed in the sym-

pathetic and its ganglia, they were confined to the cervical portion, the thoracic and abdominal sympathetic being entirely healthy.

In this case there must necessarily have been marked disturbance of the lower ganglia, but the complete and permanent disappearance of the gastric swelling would seem to preclude the probability of the existence of any lesion.

In the very few cases of exophthalmic goitre in which dilatation of the pupils has been observed, the cause is supposed to be due to a "paralysis of the pupillary branch of the oculo-motor nerve, consequent on neuro-paralytic dilatation of the vessels. The isolated paralysis of this branch (the other fibres of the motor oculi remaining unaffected) is referred by Stellwag to the fact that the branches destined for the pupil do not join the other oculo-motor fibres until after the latter have crossed the crura cerebri, and that they have been proved to originate from several centres of various function."

Case II.—Mrs. G——, aged about 40, came to me for the relief of an exophthalmic goitre, May 3, 1876. The eyes were much protruded, the thyroid prominent, and the cardiac palpitation violent. The average frequency of the pulse was about 115, but on various occasions I found that it was beating at the rate of 140 to the minute. The patient was annoyed by profuse bilateral perspiration, *the pupils were enlarged*, and vertigo was a frequent symptom. The appetite was generally good, but she complained of much nausea.

She referred to one other symptom, which, if related to the disease as an effect, as it would seem, was quite new to me. Subsequent to the development of the three cardinal symptoms, which occurred in the following order—palpitation, thyroid enlargement, exopthalmus, a swelling appeared near the pit of the stomach, which in size and vigor of pulsation was more marked than the goitre. I may remark that Dr. S. S. Purple, of New York, had attended the patient in several confinements, and was cognizant of the disease in question.

Dr. Purple informed me that she had suffered much from malarial poison, to which, together with the effects of a labor of some severity shortly previous, might possibly be attributed the symptoms in question. The first signs of the disease were manifest some three years before she came under my observation.

I administered to this patient seventeen applications, ten of which were with the galvanic current, locally applied, while seven were with the faradic current, and were more general in their nature. Amelioration followed very quickly, and at this date the only symptoms of the disease is an almost imperceptible swelling of the thyroid, and, in a modified form, a tendency to occasional cardiac palpitations.

Case III.—A middle-aged man applied to me on the last day of my service at the Demilt Dispensary, some seven years since, presenting the ordinary symptoms of exophthalmic goitre. I can, unfortunately, find no notes of this case, but, if I remember rightly, the difficulty had *not* been a long time in developing.

The man had been a hard drinker and was in ill-health. I treated him faithfully for some weeks—long enough to accomplish something, had it been possible—but I cannot remember that he was so fortunate as to experience any relief of a positive character. He ceased his visits abruptly, and never returned.

According to the record, the attempt in this case must be regarded as a complete failure, and yet, through the improved methods and appliances of to-day, it is quite possible that a better result might have followed.

Case IV.—Mrs. H——, aged 42, came from Newark, N. J., March, 1877, for an opinion, both as to the probability of benefit from an electrolytic operation upon a large goitre, and for her general condition.

The tumor had been coming for many years, and at intervals had been treated by various methods, among others, by injections into the substance of the growth, which resulted in some diminution in size, but at the same time set up an ulcerative process, which was a long time in healing. Her general health was very poor. She was greatly emaciated, suffered almost constantly from nausea, and was unable to retain sufficient food for proper nourishment. The pulse was from 85 to 90, and through mental or physical disturbance would rise 10 to 20 beats. It seemed probable that there was disease of the sympathetic, but there was no protrusion of the eyes.

The goitre was the largest that I had ever treated, approximating in size the two fists of a man.

The patient was first submitted to external galvanization (daily) of the growth and of the sympathetic. In two weeks there was a reduction, by actual measurement, of two and a half inches. At the end of a month no further reduction was observable, but every other symptom had been very decidedly ameliorated. The patient had increased immensely in strength and considerably in weight. The pulse ranged from 70 to 75, and was not at all susceptible to sudden fluctuations. The nausea had disappeared, and the appetite and digestion materially improved. The needles were now resorted to. Introducing three—connected with the negative pole—at equal distances at the base of the tumor, and applying an electrode, covered with chamois skin, directly over the central surface of the goitre, the circuit was closed, and the current from forty Siemen and Halsk's cells was allowed to pass for eight minutes.

At the end of a week, after a single repetition of this process, the original measurement had decreased five inches. During the next two weeks the electrolysis was twice repeated, the last seance being attempted with the ordinary zinc carbon elements, of which twenty were used. The tumor continued to grow smaller until the middle of May, when it was barely perceptible.*

These, with other recorded cases, being sufficient therefore to establish the fact of the value of electricity in exophthalmic goitre, the question naturally arises whether its beneficial effects are susceptible of rational explanation. It is quite evident that in this disease the sympathetic is at fault, but whether the dilatation of vessels, which are such important factors in causing the thyroid enlargement and exophthalmus, is of a passive nature, due to paralysis of the sympathetic, or of an active nature, due, on the contrary, to an irritation of the dilator fibres which run in the sympathetic, is open to question.† Accepting either theory, we find ample ground upon which to base indications for the use of the galvanic current. In case we accept the irritant theory, the very powerful sedative effects which may be obtained from the remedy is a sufficient explanation of the *rationale* of its use; while the fact that both physio-

* The above case was published in the February number of the *Virginia Medical Monthly* (1879), but in order to make the record of my cases complete, I may be excused for giving it again.

† The suggestion that the arterial dilatation is due to irritation of the dilator fibres is offered by Benedict, based upon the experiments of Bernard, Schiff, Ludwig, and Loven.

logical investigation and clinical experience has shown that electricity is the remedy *par excellence* for most forms of paralysis, quite clearly points to its use in cases where there is actual paresis of the nerve itself. In addition to the hyperæmia of vessels as a cause of exophthalmus, there may be also accumulations of fat in the cellular tissues of the orbit, which is probably the main cause in certain cases why the protrusion of the eyes still remain prominent after a decided amelioration of every other symptom.

CHRONIC AFFECTIONS OF THE MUSCLES FOLLOWING TRICHINOSIS.

By EDMUND C. WENDT, M.D.,

NEW YORK.

In the April number of the *American Journal of Medical Sciences*, for the year 1878, I published an account of certain chronic muscular symptoms occurring in a number of persons who had previously undergone trichinous invasion. The views advanced in that article were based on observations made on a group of individuals that constituted one family. I need not enter upon those views here. It is essential, however, to state that I regarded the cases as instances of chronic myositis, with acute exacerbations, due to the presence of innumerable foreign bodies in the voluntary muscles. I present the following case in confirmation of my opinion as stated in the paper mentioned. The history is taken from the records of the German Hospital, at which institution the case was observed, during my service there as resident physician.

Mr. A. B——, aged 23, native of Germany, one year in this country; was admitted April 26, 1878, with the following statement: Has never been seriously ill prior to present sickness; parents living; healthy; his habits temperate. For some days he had been "feverish," in great bodily pain, sleepless, very thirsty, and had complained of loss of appetite. He had perspired profusely; remembered having had diarrhœa about ten days ago. Several days previous to admission he had suddenly been seized with violent pains in the limbs, shoulders, neck, groins, breast, and back. These pains had not left him since then. He could adduce no cause for his severe symptoms.

The physical examination revealed slight bronchial catarrh, inadequate to account for the evident embarrassment of respiration. No lesion of inner organs was discoverable; there was some œdema of the lower extremities, puffiness of the face, especially marked about the eyelids. The examination of his urine proved the absence of renal complications; deglutition impaired; mastication quite painful. The most prominent symptom, and the one which had so largely attracted his painful notice, was the existing soreness and stiffness of the muscles. Almost all the tangible muscles of his body were exquisitely tender to the touch, every movement occasioned pain, and in attempting to go about he moved on tip-toe. The deltoid muscles, the gastrocnemii, the pectorales, the serrati, the muscles of the neck and thigh, were the seat of painful indurations, varying in size from a cherry to that of a closed fist.

The evening temperature rose to 104⅘° F., with matutinal remissions to 102° F. Respiration did not exceed 38, and was superficial, owing to the pain attending the effort of deep breathing. There was slight diarrhœa, the tongue moist and thinly coated. Diurnal quantity of urine diminished; color, dark red; no albumen, sugar, or casts.

The consideration of these symptoms left no doubt as to the nature of the malady. The patient was an Israelite, but on being closely questioned he admitted having eaten some raw ham about two weeks ago.

For a time the symptoms continued in their severity, then they gradually abated, and he made a fair recovery. He was discharged for after-treatment at home on the 7th of May; he continued to improve, and was able to resume his former occupation by the end of the month.

He passed from under my notice until fourteen months later; he came to me with a long tale of most annoying complaints, very surprising to him, almost equally so to the family physician, and withal scarcely to be endured. From his rambling remarks I gather the following: He had never entirely regained his former strength and muscular prowess, having been a very powerful man, of excellent physique, before his attack of trichinosis. About six months after leaving the hospital he had quite suddenly become subject to great muscular distress. The attack lasted several days, and in spite of energetic anti-rheumatic treatment, has from time to time repeated itself with unchanged severity. Muscular exertion, which he had previously taken great delight in, had now become a source of extreme suffering, so much so that he had latterly discontinued all active exercise.

But even during inactivity he was liable to be seized with spontaneous pain and soreness, most frequently affecting the flexors and extensors of the limbs. He further stated that these pains would sometimes become so intense that every movement of the body was instinctively shunned, and his condition was bearable only when he remained motionless. At other times his only complaint was a peculiar feeling of soreness in the calves of the legs, the pains occasionally shooting upward and downward. This condition his physician had characterized as one of neuralgia, but his treatment had secured no benefit to the patient. Similarly the arms would become affected, and so on, successively, the different muscles of the body. The shifting nature of these phenomena, and their apparent independence of palpable causes, were excessively annoying to his mind. He said, owing to these seemingly absurd complaints, he had become the laughing-stock of his companions. An old friend told him probably he was not yet over his growing days; he attributed his morbid sensations to *growing pains;* he was forced against his will to acquire habits of indolence.

The treatment advised by his physician had afforded no relief. Independently of all medication the attack would pass off, and a period of absolute freedom from all morbid manifestations would follow. This period of immunity would vary from a few days to several weeks. An examination showed no internal complication. All the functions of his body were normally and regularly performed, and save for the distressing tendency to muscular pains, he enjoyed excellent health.

When told my opinion as to the nature of his singular troubles, and after I had explained to him the causal relation they bore to his attack of trichinosis, he expressed his surprise that the same thought had not before occurred to him; for he said he had already noticed the marked predilection of the pains in favor of those groups of muscles which had been most troublesome at the primary invasion fourteen months ago.

This case appeared to me to merit publicity as corroborating the views previously expressed in conjunction with the cases cited in my former paper.

And I may now be permitted to state a belief already suggested by the study of my previous cases, but which I had hesitated to openly express at the time, *i. e.*, not a few cases accepted and treated as instances of muscular rheumatism, are indeed cases of chronic myositis, with acute exacerbations following trichinosis. It is precisely in this consideration that I find the practical importance of the matter under discussion.

It is well known that slight attacks of trichinosis frequently escape recognition. It is equally well known that rheumatismoid pains of a shifting nature form a prevalent complaint. The occurrence of trichinosis in our country is an established fact, though for various reasons its frequency is generally underestimated. We lack extensive statistical data, such as are furnished by European writers. Strict official surveillance and the microscopic examination of pork by competent authorities have not yet been established in our country. Only very severe or fatal cases are brought to public notice, and these are frequently discovered only by accident. Still, the disease prevails. Official reports on the subject have shown the percentage of infected swine to be especially large in America.

In Europe, people are already warned against pork exported from the United States. The danger in our country is comparatively small, because it is not customary here to eat uncooked ham, sausage, etc. On the other hand, cooking is no absolute safeguard. All this tends to show that the accepted notion, according to trichinosis a place among the rare diseases, cannot but be erroneous.

To return to my point, these considerations will, if I am not mistaken, establish a certain connection between trichinosis on the one hand, and many so-called rheumatismoid affections on the other. As regards the treatment of such cases, I have little to add. Owing to the impossibility of destroying the muscular trichinæ, we are restricted to adopt such symptomatic measures as the exigencies of the individual case seem to suggest. I have found hot baths quite beneficial in allaying the milder attacks. Narcotics must be resorted to when the pains are suddenly developed. Rest and frequent rubbings with anodyne liniments sometimes afford relief. Of course, our only reliable safeguard is an efficient prophylaxis. Some system of rigid microscopic inspection should be adopted in our country, and the sooner we get it the better.

TRAUMATIC DISLOCATION OF THE FIFTH CERVICAL VERTEBRA.

ONE WEEK'S DURATION; IMMOBILITY AND DISTORTION OF HEAD AND NECK; PARALYSIS OF ARMS AND LEGS; INABILITY TO SWALLOW FOOD; REDUCTION BY SUSPENSION BY THE HEAD AND ROTATION OF THE BODY.

BY WM. J. MORTON, M.D.,

NEW YORK.

THE following case came under my care as clinical assistant at Professor Hammond's clinic for Diseases of the Mind and Nervous System, and offers some points of general interest.

The patient, Tommy Baedor, a bright boy, twelve years old, was referred to the clinic on account of general paralysis of his arms and legs, and apparent contractions of the muscles of the left side of the neck. He gave the following account of himself: One week ago he was running very fast, chased by another boy, who, as he caught up with him, pushed him violently. He fell and struck the right side of his neck against the horizontal iron rod of a fence or railing. The shock was severe, and he could not speak for several minutes. He was helped up and home. His neck felt very sore and was "twisted" to one side. His aunt applied liniments, without, however, producing any relief. Upon trying to drink he found that he had a "lump" in his throat which hurt him very much when he swallowed, and he was obliged on this account to eat only soup and soft food. Moreover, he could not open his mouth wide. He tried to get a peach stone between his teeth, using it as a wedge to force the jaws apart, but could not get it fairly in. He was obliged to sleep on his right side. The next day he felt very weak, could not swallow without much pain, couldn't walk, nor get his mouth wide open. His aunt states that "his hands felt in a burning fever," while his body felt cool. During the remaining five days he was unable to use his arms and hands; they were "paralyzed, and had no feeling in them,"—so much so, that, he says, he could not use them to pull his trousers on. He also felt very sleepy. He made many ineffectual attempts to get his neck straight. Finally, his aunt, who is a very dull sort of person, thought it time to have his case examined, and accordingly brought him to the clinic.

Present appearance.—As the boy entered, the first thought was of an extreme contraction of the muscles of the left side; the head was pulled strongly over to the left and backward, while the chin pointed out to the right; so marked was this position that the head seemed to lie over upon the left shoulder—the left shoulder at the same time was elevated and held up toward the ear. The rigid appearance of his whole body was peculiar; he seemed to walk as though in fear that his head would topple off; when he turned, the rotation took place at the hips and not at the neck, or he rolled his eyes without moving the head. His arms also swung a little stiff and helplessly, and were flexed at the wrists. The rigidity of the shoulder and neck region was very marked. When asked what he complained of, he stated that he could not use his arms; that he had no feeling in them; that he couldn't walk well, and that it hurt him to swallow even fluids. Examination corroborated his statement in regard to paralysis and cutaneous anæsthesia, as well also as his inability to swallow water without evidences of pain. It caused pain also to produce forcible extension of the flexed wrists. Told to put out his tongue, he could not open his mouth more than half an inch, but the tongue came out straight. It was coated white on the right side, clean and red on the left. There was no discoverable paralysis of the muscles of the face or eyes. As regards the position of his head, the occiput seemed to sink downward and backward, and give to the chin an upward projection; the chin, as mentioned, projected over the median line to the right side. Between the base of the occiput and the seventh vertebra the outline of the spinal column seemed to hollow in, and the spinous processes to be obscure. It was difficult to feel the spine of the fifth, and pressure over it gave pain on both sides, but particularly on the right. The head could be bent over to the left side moderately well, but could not be laid over on to the right shoulder in the slightest degree. In this direction it was perfectly immovable.

There was no evidence of a permanent contracture as in torticollis, nor of paralysis of the muscles of the right side. There was no crepitus at the seat of in-

jury, and the fact that the deformity could not be in the least degree modified by lateral rotation seemed to justify the exclusion of a diagnosis of fracture, at least of an oblique process.

A diagnosis of dislocation of the inferior oblique process of the fifth cervical vertebra was made, and an attempt at reduction determined upon. I may say that Dr. Osborne, who by chance was present, concurred in this diagnosis.

Moderate extension was first tried, but to no purpose. Finally, taking the boy by the head and under each mastoid process, I lifted him gradually entirely clear of the floor and held him suspended, an assistant at the same time supporting my elbows. His body, with the right shoulder as a guide, was then rotated by Dr. Osborne, first very gently backward, *i. e.*, to the right (as the hands of a watch indicate), in order to disengage the oblique process, then more firmly forward, *i. e.*, to the left; the jar of the bone returning to its place was immediately felt both by Dr. Osborne and myself, though much modified, of course, by the weight of the patient's suspended body. The patient was immediately lowered so as to stand on his feet, and to our pleasure the head was quite straight, though still a very little bent over laterally to the left side, a condition due probably to its having been so long already in that position. But it was particularly noticed that the chin pointed straight again. The boy expressed his relief and satisfaction, and rotated his head freely to demonstrate that it was now in its right position. Given a glass of water he drank it off freely—a thing he had not been able to do for a week when sent home. At the end of two hours the head was quite straight. Sensation had not, however, returned to his arms and hands. He had at times a thrilling feeling in them, as if his "crazy bone" was being hit. Patient walked home.

Friday, July 25th.—When patient woke up he found he was unable to move except very gradually. For instance, he woke with his hands crossed and had to get his aunt to separate them. His feet were much swollen, as also his hands and wrists. He could barely hobble along, walking on the outer edge of his feet. His hands felt numb all day; he could not close his fingers nor hold any object in his hands; could move his thumbs best. Both hands were alike. He was so helpless that he had to be put to bed; had no trouble of urination, but was constipated.

July 26th, Saturday.—Felt much better; could use his arms and legs pretty well. The dorsum of the hands was much swollen; pulse, 84. A painful spot, like an enlarged gland, is felt in each groin. Bends head freely forward but not backward. Bends it well to his left side, but not to his right. Right cheek swollen; right side of tongue coated white—left, red; painful enlarged gland under right jaw; pupils normal. Spines of cervical vertebræ in line.

July 27th, Sunday.—Swelling has left his hands; movements improved; still holds his head very slightly crooked. Pulse, 65.

Monday, July 28th.—Head quite straight. Swelling of hands has disappeared, and sensation and motion have thoroughly returned to them. Still places the finger over the fifth cervical vertebra to indicate the region of a remaining sore spot in the neck. Pulse, 84.

Tuesday, July 29th.—Slept without pain in the neck for the first time since injury. Head carried perfectly straight. Patient apparently in all respects completely recovered.

September 20th. Patient, up to this date, has remained as well as if no accident had ever happened.

CLASS-ROOM LESSONS ON CHANCROID,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

BY FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[FOR THE MEDICAL RECORD.]

III.

DIAGNOSIS OF TRUE CHANCROID—CHARACTERISTIC FORMS OF THE CHANCROIDAL LESION—MODIFICATIONS.

GENTLEMEN:—In the previous lesson the diagnosis of simple origin of the apparent chancroid was made in the last case presented.

It is, however, very evident that if no lesion is to be accepted as a chancroid unless proved to have arisen from contact with a lineal* chancroid, the specific nature of chancroid may be accepted as demonstrated. The diagnosis then, in any instance, will not rest upon the character of the lesion, but upon its source. Thus, in the case cited, according to this ruling, we have not a chancroid. A suppurating sore occurs in a lady who never before had an ulcerative lesion of any sort; it makes its appearance on the urethral orifice a few days after contact with her husband, who has a sore of his urethral orifice, which appeared a few days after a contact with another woman, and was followed by a suppurating bubo; it looks exactly like a typical chancroid; it behaves like it in its destructive tendency, in its advance and its retrograde under treatment, and its final cicatrization after about two months' duration, under improved hygienic conditions, and yet it is not accepted as chancroid, and why? First, because it is clearly not the product of a lineal chancroid. This is, of course, sufficient for those who thoroughly accept the specific nature of the disease; but there are others who decide this lineal matter by the inoculability or non-inoculability of its secretion; with them the production of true chancroid, by inoculation of a given secretion, proves that secretion to have come from a chancroid. Assertions to this effect would appear to be the result of experience among the class most prone to suffer from the results of venereal dissipation, where probabilities are all in favor of chancroid having been acquired from contact with chancroid, and among whom the contagious element of the chancroid is kept by various influences up to a high point of activity.

There can be, however, no question that chancroid, proven of direct lineal descent from a typical chancroid, may be met which is inoculated with difficulty, and which is but feebly destructive; that, in point of fact, chancroid descended from typical chancroid is seen of every grade of destructive and contagious power. Experiments have proved that the true chancroid virus gradually loses its power by repeated inoculation, and also that various conditions of health may prevent the success of inoculations with fresh virus, and under circumstances otherwise favorable. "Susceptibility to inoculation is impaired, or even lost, temporarily, during the occurrence of any febrile attack or great depression of the vital powers."†

It is also *increased* by constitutional dyscrasia of *various* kinds: thus the syphilitic dyscrasia, it is well known, predisposes to purulence. Typical chancroid, destructive and inoculable in generations, have been

repeatedly proven to result from the inoculation of pus from an irritated syphilitic chancre, also from the purulent secretion of secondary syphilitic lesions, and also from scabies and acne. Baumler, a recent German authority, says: "According to its source and mode of its origin, as well as the *susceptibility of the individual affected*, will the pus poison and evince this (chancroidal) property *in greater or less degree. Whence the pulse derives this property, in what it consists, and why all pus does not possess it alike, are questions yet to be solved.*" *

Inoculability, then, is not a *reliable* test as to the origin of a sore.

Again, inoculation of a leucorrhœal secretion, especially from a cervicitis or a metritis, has been claimed capable in certain instances of producing inoculable sores. This is further proven by the following extract from a distinguished authority:—

"In March, 1840, a woman† from the neighborhood of Arles, aged 22, and remarkably beautiful in form and appearance, was thoroughly examined, as was supposed, by Prof. Lallemand, and no symptom of venereal disease was discovered. This examination was made at the request of an officer, who complained that she had infected him; and several similar complaints being subsequently made by others, she was sent to the police station, where she was again examined by M. Delmar, in the presence of a considerable number of students. *The neck of the uterus still appeared healthy*, but on pressing it with the speculum it discharged a muco-purulent fluid, which was inoculated in four places upon the patient's thigh, *with the effect of producing four well-marked chancroids.*" In this connection it will be interesting to recall the cases in the previous lesson where ulcerative lesions on the penis resulted upon contact with virtuous women who suffered only with subacute metritis. How do these women differ from the beautiful woman of Arles as to the character of these uterine secretions? Contact with them produces sores proven to have a contagious property. Must we, then, say that they are the subject of chancroid in the interior of the cervix or uterus? The woman of Arles communicated *chancroid*, because she had a uterine leucorrhœa, and because she was a prostitute, not because she had chancroid. The most rigorous and repeated examinations failed to find any chancroid upon her, and yet she was *the source of chancroid to others.* The man, whose urethral sore communicated a similar sore to his wife's urethra, had not chancroid, because his sore was acquired from contact with menstrual fluid under circumstances of unusual excitement, from a lady of supposed virtue, and not from a prostitute.

The foregoing cases and remarks are chiefly intended as a preface to the final and important statement that the elements of destructiveness and contagiousness in a venereal lesion are not, in my opinion, dependent upon a *specific* virus, but are engendered by various causes and conditions; and that, clinically, we shall have to deal with venereal lesions in every degree of activity, which activity will be found to depend as frequently upon the constitution and circumstances of the patient, as upon the variety and origin of the sore from which his chancroid was derived. We may then say that *chancroid*—

1st.—Begins as a destructive process, either upon a pre-existing lesion, or upon sound tissue. It is usually set up by contact with the purulent secretion of a *similar* destructive process, *which had a similar origin, or which may have been developed from a suppurative process of a lower grade.*

2d.—The destructive process thus initiated (either upon sound tissue or upon a pre-existing lesion) proceeds steadily to the formation of a pustule, or an ulcerated surface, by a more or less rapid molecular necrosis. This necrosis, occurring under differing conditions and in different localities, gives rise to characteristic forms of the chancroidal lesion which may be described as follows, viz.:

1st.—*The Chancroidal Abrasion;* 2d.—*The* PUSTULAR *Chancroid.*

These may be again divided into the *slowly destructive* and the *actively destructive* varieties. We may have as modifications of these,—

FROM CONDITION.	FROM LOCALITY.
The Indurated Chancroid.	*The Follicular, Papulo-Pustular, or Acneiform.*
The Inflammatory Chancroid.	*The Ecthymatous.*
The Gangrenous.	*The Bubonic.*
The Phagedenic.	*The Urethral.*
The Serpigenous.	*The Rectal.*

The Ex-Ulcerous Chancroid of Clerc and the Ulcus Elevatum.

Modifications of all the foregoing forms and varieties, by the *coincident development* of implanted syphilitic elements on the site of the chancroidal lesion.

We will next study a little more in detail each of these characteristic forms of

THE CHANCROIDAL LESION.

First.—As to the *origin of the Chancroidal Abrasion.* Abrasions of mucous membrane are frequent as the result of violence during the act of coition; they occur most frequently about the fourchette and the vestibule of the female, and about the preputial orifice and the frenum, and along the preputial reflection of mucous membrane behind the fossæ glandis in the male.

All injuries of this character, on being brought into contact with the secretion of an active chancroid, are at once inoculated, and the suppurative action is thus initiated over the entire surface of the lesion. It is to the abrasion, thus complicated, that the term *chancroidal* is applied. To the naked eye it appears at first like a simple scratch or chafe, but an examination of its secretion shows abundant pus corpuscles, within three or four days, and often within twenty-four hours. By the aid of a good magnifying glass, the advancing molecular necrosis may be seen, in the dentated edges, in the minute, sloughing points on the surface of the lesion, and the secretion is inoculable. Sooner or later, in accordance with conditions which are known to render chancroidal lesions more or less active, the abrasion may be merged into the characteristic chancroid. Its shape, which at first corresponds with that of the surface inoculated, now changes through the advancing ulceration; the edges become ragged and abrupt, the floor, excavated and covered with the débris of disorganized tissue, gives rise to a profuse secretion of pus. The time for these changes in different cases may vary from a few days to several weeks.

Second.—As to the *origin of the Pustular Chancroid.* The pustular chancroid arises either from the erosive property of the chancroidal secretions which have been deposited in the folds of integument or mucous membrane, or from the absorption of the secretion into the follicles of mucous membrane, which have been bathed in the secretion of chancroid.

* Ziemssen, Vol. III., Am. Ed. pages 94-95.
† Bumstead, p. 259.

The time of its appearance after contact varies from three or four days to eight or ten, and in certain authentic instances even longer.* Occasionally single, it is accompanied, as a rule, or soon followed, by others in the immediate vicinity or at different points. Commencing as a fine whitish speck, scarcely larger than a pin's point, it soon increases in size, and, unless occurring on an already inflamed surface, presents a distinctly inflamed border. Its progress (more or less rapid, according to circumstances and conditions which are known to increase or retard its activity) is by an acute ulceration, before which the tissues give way in irregular form, both at the edge and floor (as heretofore described in case of its advance from a previously abraded surface), accompanied with more or less local inflammation and pain. Its progress, like that of the chancroidal abrasion, is variable. In typical cases, under circumstances of usual health and condition, reaching to the size of a five-cent piece, and penetrating to the depth of one or two lines, in the course of three or four weeks, while, under other circumstances, its depth and its extent may be greatly increased.

These peculiarities of the action of the chancroid are the same, whether beginning on an abraded surface or as a pustule, and warrant the division of chancroid into the two forms previously noted, viz.: the *slowly destructive* and the *actively destructive*.

To show you that this division is not simply a technical one, I will recall four cases presented to you at our last two sessions, which illustrate the validity of the distinction.

Case I.—Wm. B——, waiter, about twenty-five years of age, gave a history of exposure through vicious sexual contact eight weeks previously. Four or five days after, he noticed several white pimples on his prepuce behind the *fossæ glandis*. He touched them with "blue stone" from time to time, and after a week others came on his glans penis. He then used a wash and kept them clean, but they refused to heal until he went to Charity Hospital about a week ago, seven weeks after their appearance. Here the sores on the prepuce were cauterized, on several occasions, with nitric acid, also three on the glans, about the size of a pea. His general condition as he came before us was fair, not rugged. He presented several superficial cicatrices on the internal reflection of the prepuce, and a raw surface about the size of a three-cent piece, yet unhealed, but granulating well. On the glans were three fresh cicatrices, which, as I was careful to show you, matched exactly upon three distinct cicatrices on the prepuce when drawn forward. This case I presented as chancroid of the first variety; demonstrated as slowly destructive, and also contagious, as proven by auto-inoculation.

Case II.—A blacksmith, aged forty-five, was shown you in contrast. A large, pallid man, evidently in low condition. Just two months before, he also had a connection, and no trouble resulted for the next ten days, when his attention was attracted to his penis by soreness. He then discovered three inflamed pimples, one on a redundant prepuce and two on the body of the penis. These progressed steadily, and thinking they were simple boils, he neglected them until the scabs came off a few days ago, when he found deep ulcerations in their place, each as large as a dime. He was admitted to Charity Hospital, and the sores, which were recognized as typical chancroids, were cauterized with nitric acid. When shown to you, three days after, they were still of the same size before mentioned, and fully one-fourth of an inch deep, penetrating fully and sharply the swollen integument. This case was presented as illustrating the *actively destructive* variety of chancroid. With much the same history as the first, it was yet seen to be in marked contrast with it in regard to the activity of the destructive process. There was no history of any antecedent syphilis in either case.

The third case was of a lad of 20. He was in good health, history of an impure connection four weeks previously; a pimple near the frenum appeared five or six days after; this he treated with repeated applications of "blue stone," and it healed in a couple of weeks, having carried away the frenum. A soreness of the right groin then set in and culminated in an abscess; this I opened before you, discharging about an ounce of unhealthy looking pus.

Both its appearance and course were spoken of as characteristic of the chancroidal bubo. The locality of the original sore was pointed out as one most liable to be followed by such an accident, inasmuch as the lymphatic vessels connecting this point with the glands of the groin are known to be numerous and superficial. No other cause for such a complication could be elicited.

The fourth case presented to you last week came to our clinic the week previous, too late in the hour to be available as an example. The young man, twenty-five years of age, gave a history of impure connection the week previously, and had just discovered a little sore just within the urethral orifice. A little feeling of hardness associated with this sore and the long interval since the connection, gave rise to suspicion of syphilis. In order to clear this up, two inoculations were made under the left nipple of the patient by Dr. Bangs, our chief clinical assistant, and the patient was ordered to report on the following Saturday, two days after; this he failed to do. He was presented to you one week after, with a sore which had penetrated fully one-third of an inch, and had completely

*The following starting point of the disease assumed by Cullerier, Ricord, Acton, and others has been substantiated by a case which came recently under my observation. Mr. W—— came to me complaining of having bruised his glans penis during a connection four days previous. On the morning following the ecchymosis the parts were red and somewhat swollen and inflamed. These conditions had been gradually increasing in intensity until he presented his case to me. I found the inferior portion of the glans much tumefied from the meatus back to the fossæ glandis, and for half an inch on either side of the median line the frenum had been smoothly carried away by a chancroidal ulceration, for which I had treated him a year previous. The injured part was swollen, and presented a smooth, shining surface of a deep red color. By the most careful examination, with the aid of a magnifying glass, I could not discover any point of abrasion or solution of continuity, whatever. I advised a simple water dressing, observing the precaution, at night, to keep the dependent position of the organ as much as possible, and to protect it as much as possible during the day. He called on the following day, almost entirely relieved, but in appearance the parts had not improved, the color was even deeper than on previous examination. A wash of lead and opium was substituted for the water dressing, and the patient advised to keep the recumbent position. On the next day, the third from his first visit to me, and the seventh from the impure connection, he again presented himself. The tumefaction had nearly disappeared, the color had deepened, and was now of a livid tinge, and I discovered, as though under a glass, numerous pale whitish points, each surrounded by a pink areola. I should say there were in all about twenty of these points, and they occupied a space a quarter of an inch broad, and one-third in length on either side of the frenum, and the whole upper aspect of the glans. Previous treatment was continued, and I did not see the patient until the following day, making in all *ten* days from the connection. On the morning of the tenth day I discovered that many of the pale points had *undermined* the mucous membrane; these were then opened into with a fine pointed bistoury, and discharged minute quantities of pus. Under the magnifying glass, the little cavities left after the discharge of the pus were distinctly visible. In all, the points, numbering twenty or thirty in number, finally worked their way to the surface, occupying some three days longer, and they soon coalesced from the extension of the ulceration process, resulting in a true chancroid three-fourths of an inch in length by one-third of an inch in breadth, occupying the site of the original white points. The first pustules were visible through the mucous membrane, but evidently deeper than its thickness on the seventh day after the absorption. The first of these came to the surface on the tenth day, but it was not until the twelfth that all had reached the mucous membrane on their outward march. Applications of the strong nitric acid resulted in a complete recovery in a few days.

carried away the right side of the meatus, exposing the urethra for that distance. The attempted inoculations, as shown you, were wholly abortive, although as I saw them one-half hour after the puncture they were surrounded by a congested areola of half an inch in diameter.

This case I presented as demonstrating several points: 1st. The long interval of apparent incubation. 2d. The slow progress of the lesion up to the week previous, thus marking it as belonging to the slowly destructive variety of chancroid, if it were chancroid. 3d. The sudden change from the slow to the actively destructive variety. 4th. The failure of a carefully performed inoculation of the secretion of the lesion upon the person of the patient, thus going to prove that a destructive chancroid may, under certain conditions, fail to give an affirmative proof by inoculation as claimed by Böck and others.

Now, while I do not present these cases as absolutely proving the points I desire to illustrate (as there may be various valid objections urged against them), yet I claim that they form links in a chain of evidence, which may be forged to show that chancroid is of variable quality and force, and also that the quality and force is determined not by any specific virus, but by circumstances and conditions. It will be well for all who study and treat this disease to be cognizant of this, and to consider the causes which are known to affect the degree of destructiveness and contagiousness in each case, instead of attaching too great importance to the dogmatic and unsupported assertions of those who claim one continuous lineal descent for all inoculable and destructive venereal sores.

It may, I think, be safely claimed that the character of a chancroid is greatly dependant upon the degree of activity of its immediate predecessor, and that it may itself be modified or intensified by the following influences:

1st.—General condition of the person so inoculated, especially in relation to any diathesis or dyscrasia.

2d.—Locality of the inoculation.

3d.—Influence of alcoholic stimuli, low and irregular living, etc.

4th.—Local sources of irritation, such as standing at work, walking, or horseback exercise, indulgence in coitus, uncleanliness.

5th.—Application of external irritants, administration of internal medicines, especially mercurials.

For the convenience of description, various names have been applied by authors to designate the several modifications of chancroid. These have been already cited, and will be seen to fall naturally under two heads, as modified by condition and locality.

We shall consider next,

THE MODIFICATION TO WHICH THE DIFFERENT VARIETIES OF CHANCROIDAL LESION ARE SUBJECT FROM CONDITION.

First:—The Indurated Chancroid. The uncomplicated chancroid has a soft base and edge, differing in suppleness, but little, if at all, from the surrounding tissue. In this condition we have a valuable diagnostic mark separating chancroid from the initial lesion of syphilis, which in typical cases presents a distinct induration of the tissue on which the lesion is located. Venereal sores often present, however, about which a varying amount of induration is present; not seldom occurring at an early period in a chancroidal lesion, before the loss of substance is well marked, or coming on later, in a well-marked chancroid, giving rise to suspicion of underlying syphilitic action. It is well then to understand that such induration may result from any form of irritation, and may be a purely inflammatory aggregation of cell material. Chancroids thus complicated are termed *indurated*. The test of the nature of the induration in any case is by treatment. If the induration is thus rendered more dense and sharply defined, it will prove, as a rule to which there are few exceptions, that it is the result of true cell growth, caused by the syphilitic influence, and that the lesion is either the initial of syphilis complicated by accidental ulceration, or that it is a true chancroid complicated with syphilis.

If, on the contrary, the induration disappears wholly under the influence of rest and local sedatives, it is of an inflammatory character, and the lesion so complicated is proven of purely local nature, and has thus been but an *indurated chancroid*.

Second:—The Inflammatory Chancroid. Instead of becoming indurated under various causes of irritation as in the previous variety, the tissue surrounding and underlying the chancroid may become more tender and swollen, assuming a puffy appearance, and the surface more intensely red and extended.

This condition may supervene upon any stage of chancroid, whether slowly progressing or healing, and is the evidence that a more rapid destructive action has been initiated or is imminent.

The same condition may obtain on the early appearance of the chancroid as a result of intensity in the secretion inoculated, or from constitutional taint, excess, sexual and alcoholic, as well as from local irritations.

The Gangrenous Chancroid is but the fruit of the unrelieved inflammatory form, usually the result of interference with the circulation of a part by swelling and inflammatory infiltration of the tissues, in which case, sloughing of contiguous structures occurs *en masse;* especially is this apt to take place in debilitated and dissipated subjects. When occurring upon persons in good condition it is the result of some mechanical constriction, as in case of subpreputial chancroids complicated with phimosis.

The occurrence of gangrene, in such case, once announced by the fœtid odor, if not arrested by treatment, will require but a few hours for the deep red surface of the inflamed prepuce to turn black, and the slough to disintegrate and separate from the living tissue at or near the line of constriction. The effect of the gangrenous accident is to destroy all contagiousness in the associated chancroid, and the parts heal, after the falling of the slough, as if no such complication had been present.

VENEREAL PROPHYLAXIS.—The subject of how to indulge the passions without physical injury or infection is made the subject of scientific study by a Parisian. In a work addressed to "Émile"—who represents the erotic class in general—the virtues of various forms and methods of protection are discussed in a broad and judicial style. Truly, Paris stands at the head of civilization.

BROMHYDRATE OF MORPHINE.—This drug is being used as a substitute for the sulphate. It is more soluble in water, and is twice as powerful. It combines the sedative effects of the bromine with the anodyne properties of the morphine. It is not so dangerous, and is not so apt to be followed by unpleasant symptoms. It is the drug especially for irritative affections of the spinal cord. This is claimed by Dr. Landrieux, in the *Journal de Thérapeutique*.

Progress of Medical Science.

MORBUS WINCKELII: A HITHERTO UNDESCRIBED DISEASE OF NEW-BORN INFANTS.—On the 19th of last March, a child in the Maternity Hospital, in Dresden, was taken sick with very peculiar symptoms on the third day after birth. This case was followed by others, constituting an endemic which lasted, with an interval of ten days secured by isolation of the patients, until the 21st of April. Twenty-three infants were attacked, and nineteen (82 per cent.) died, after an average sickness of thirty two hours. Of the four who survived, one was cured, one was taken from the hospital greatly improved, and two were taken away while still laboring under the disease. The patients were attacked between the first and twelfth days of life, most of them on the fourth day. They were almost all born at full term; the labors were normal, and the mothers passed through the puerperal period without accident. Of the children attacked, nine were boys and fourteen girls; eighteen were nursed by the mothers.

The following account of the symptoms presented by the first child attacked after the ten days' interval is given by the reporter, Dr. Winckel, and will answer as a description of the disease: the mother was confined ten days after the last child had been attacked, and had watched once, before her confinement, in the ward in which the sick children were placed. Her child was robust, weighed nine and a half pounds, and cried lustily. It was put to the breast on the day after its birth, but it drank little and seemed dull. On the second day the characteristic symptoms were present: cyanosis of the entire body, conjunctivæ slightly jaundiced, sighing respiration, hæmoglobinuria, the urine being pale brown in color and passed frequently and with bearing-down movements. The urine contained also epithelium from the bladder and renal pelves, granular casts with blood-corpuscles, micrococci and masses of detritus, urate of ammonia and albumen. The temperature was normal—in no case was there any fever. The condition of the blood was very remarkable. When a slight incision was made in a cyanotic spot, the blood did not flow unless forcible pressure was employed. It was as thick as syrup, and almost blackish brown in color. Microscopically, Dr. Winckel found an increase of the white corpuscles, quantities of small granules (debris of the red blood-globules), and small corpuscles with molecular movement. The abdomen was not distended, and was normally soft. Liver somewhat enlarged. Thoracic organs normal; heart-sounds somewhat muffled. Later on convulsive movements of the extremities and eyes set in, and a few hours afterward death took place in more violent convulsions.

Results of the Autopsies.—Umbilical vessels diseased in one case only. Liver swollen, dark brown, sometimes in a state of granular degeneration. Spleen thickened and enlarged. Pancreas excessively hyperæmic. Kidneys, the cortical substance brown, often with darker streaks; in the papillæ frequently hæmoglobine infarctions. Stomach always greatly dilated, sometimes like a balloon, presented a few ecchymoses. Below the duodenum a series of ecchymoses began, which were thickly sprinkled over the mucous membrane of the entire intestines; swelling of Peyer's patches; enormous swelling of the mesenteric glands; ecchymoses of the pleuræ. In the brain, œdema and dilatation of the ventricles; in the membranes, marked hyperæmia and a few small extravasations, and, in a few cases, pronounced icterus. Etiologically, it is as yet only possible to say what the affection was *not* due to. It could not be due to the effects of the delivery, to puerperal infection of the children, to poisoning by morphine, opium, phosphorus, carbolic acid, or chlorate of potash, to errors in diet, or to the action of heat by baths given at too high a temperature; nor could any cause be discovered in the clothing or the air of the wards. The agens morbi, whatever it was, must have been very intense; it must have penetrated directly into the blood, and perhaps made its way into it through the digestive tract, as the most intense derangements were met with there.

Dr. Winckel calls the affection "cyanosis afebrilis icterica perniciosa cum hæmoglobinuria," but it has been suggested to substitute for this formidable name the simpler term "morbus Winckelii."—*Deutsche Med. Wochen.*, 1879, Nos. 24, 25, 33, 34; *Centralblatt für Gynæk.*, July 19, 1879.

OCIMUM BASILICUM, A NEW ANTHELMINTIC.—This plant, which is known in Buenos Ayres under the name *albahaca*, exerts a powerful action on intestinal worms, expelling them from their haunts with very great rapidity. The part used is the juice, and it is given in doses of about two ounces, followed in two hours by castor-oil. It acts more powerfully and certainly as a vermifuge than calomel, santonin, kousso, or kamala, and, on the other hand, possesses the great advantage of doing no harm if worms be not present, exerting then merely an aperient and disinfectant action.—*Allg. Med. Cent. Zeit.*, July 26, 1879.

TREATMENT OF TAPE-WORM BY SALICYLIC ACID.—Dr. Ridder reports two cases in which he gave salicylic acid to remove tape-worms, with the most satisfactory results. The mode of administration was as follows: An ounce of castor-oil was given in the morning, and the patient's diet was restricted during the day, so as to keep the intestinal canal as empty as possible. On the following morning half an ounce of castor-oil was given at 7 o'clock; at 8 o'clock 12 grs. of salicylic acid were given, and this dose was repeated every hour until a drachm of the acid had been taken; half an hour after the last dose, another half-ounce of castor-oil was administered. In one of the cases the worm was passed about 1 P.M., and in the other about 3 P.M.; both were examples of the tænia solium, and both were passed entire, with the head. After the passage of the worms the rectum was washed out with injections of water. The only unpleasant effect produced by the treatment was a slight nausea, which was not, however, bad enough to keep the patients from returning to work on the same afternoon.—*Allg. Med. Cent. Zeit.*, July 30, 1879.

SCILLINE, SCILLIPICRINE, AND SCILLITOXINE: THE ACTIVE PRINCIPLES OF SQUILL.—Squill, though deservedly placed in the first rank among diuretics, labors under the disadvantages of being uncertain in its action, owing to the difficulty of obtaining the bulbs in the proper condition, and of possessing an acro-narcotic principle which proves poisonous to some individuals, even when only moderate doses are taken. These disadvantages are now overcome, it is claimed, by Merck, of Darmstadt, who has succeeded in isolating the active principles of the bulb, and is thus enabled to exclude the poisonous principle and obtain a uniform preparation, which is adapted even for subcutaneous use. The substance called *scillitine*, which has been obtained from the fresh bulbs by ex-

traction with alcohol, is a mixture of the three principles separated by Merck, a fact that accounts for the variability of its action. Dr. Fronmüller, of Furth, has tested Merck's three preparations of squill on fifty-three cases, and draws the following conclusions concerning them:

1. Scillitoxine in the majority of cases produces pretty free diuresis, but it contains the greater part of the toxic principles of the squill, and hence is not suited for clinical use.

2. Scilline also is not adapted for practical use, because it exists only in minute quantities in the bulb, is very dear, and seems to be inactive unless given in large doses.

3. Scillipicrine, dissolved in water and administered hypodermically, has proved to be a diuretic of the first class, second to none other in efficacy. Out of seventeen cases of oliguria, it failed only twice. In twelve of the fifteen successful cases the quantity of urine was doubled and often even more, and in one it was increased sixfold. No symptoms of poisoning were produced, thanks to the separation of the scillitoxine. The only disagreeable effect produced was a more or less intense irritation at the site of the injection; this was absent only in two cases, and in four it was pretty severe. In one case four tablespoonfuls per diem of a two per cent. solution of the scillipicrine were given internally without any effect. For the subcutaneous injections a ten per cent. solution was employed in most of the cases; in only one is it stated that a second injection was practised. In two of the cases, the increased excretion of urine was accompanied by thin passages from the bowels.—*Allg. Med. Cent. Zeit.*, Aug. 6, 1879.

Bromine Vapor in the Treatment of Croup.—Dr. Netolitzky has employed the treatment of croup recommended by Dr. Schutz three years ago, in nine cases with seven recoveries. He used the following formula: ℞. Bromi puri, Potass. bromidi, āā grs. vijss.–xv.; Aquæ ʒ v.–vij. M. This solution was poured on a small sponge or on cotton, and the patients inhaled the vapor given off by it for five or ten minutes every half-hour. The potash is added to retard the too rapid volatilization of the bromine, which necessitates also a frequent moistening of the sponge or cotton. When there was a tendency to renewal of the exudation, the inhalations were continued for a prolonged period, but weaker solutions were used. Ipecac and other expectorants were given at the same time. One great advantage of these inhalations is the facility with which they can be administered, no special apparatus being required. They do not excite any affection of the respiratory organs, are not specially liable to excite cough, are easily borne, and can be employed at any age. Bromism was not produced in any of the cases. Dr. Netolitzky does not regard the bromine inhalations as a specific for croup, but the results obtained by himself and others have been so favorable, that he feels justified in recommending the method of treatment warmly to the profession.—*Allg. Med. Cent. Zeit.*, August 16, 1879.

Suffocation from the Entrance of Ascarides into the Air-passages.—Dr. Fürst reports a case of death from this cause observed in Billroth's clinic, and has found records of 23 other cases since the time of A. Von Haller. In this case the child while under treatment for another affection was suddenly seized with symptoms of suffocation. Tracheotomy was at once performed, but some obstacle prevented the introduction of the catheter, which was used because no canula was at hand. The child died, and after death a lumbricoid worm, which had in all probability obstructed the larynx, was drawn from the nose.

A similar case was reported last year by P. Donati. A boy, five years of age, while suffering from constipation, vomited a lumbricoid worm; a dose of castor-oil was also vomited without moving the bowels. In the following night the child vomited again, and was then seized with an attack of suffocation in which he died. No history of previous attacks of dyspnœa could be obtained. At the autopsy, an ascaris lumbricoides was found sticking, doubled on itself, in the larynx and trachea, entirely obstructing the lumen of the tube. The worm was eight inches long. A second ascaris was found in the larynx, caught in the loop formed by the first, and two more were found in the pharynx and œsophagus.—*Centralblatt für Chirurgie*, July 12th, and Aug. 23d, 1879.

External Application of the Bromide of Potassium.—The good effects obtained from bromide of potassium in all reflex irritations due to teething are well known, but M. Peyraud claims that better results can be obtained from direct local application of the remedy to the gums, than from its internal administration. He uses a mixture of the bromide one part, to honey six or seven parts, with sufficient water to dissolve the salt, and enough alcohol to preserve the mass. This should be gently rubbed on the gums four or five times a day; in cases of diarrhœa caused by dentition, a few drops of Sydenham's laudanum may be added with advantage. The bromide acts as an anæsthetic to the mucous membrane, as a caustic to excoriations, and through its effect on the general nervous system. It quiets immediately the urticaria of dentition, and under its influence those excessively nervous children in whom the eruption of the teeth is irregular and difficult, pass through this period without convulsive phenomena.

M. Peyraud has also used it with success in caries of the teeth and of some of the long bones, and in diphtheria. Carious teeth he fills with powdered bromide, which is retained in its place by a tampon of cotton; the first application calms the pain in about twenty minutes, and the tooth gradually becomes insensible. In caries of the long bones the fistulæ are washed out with a solution of the bromide in glycerine and water. Diphtheritic membranes are powdered with the finely pulverized salt, every two, three or four hours, according to the severity of the case. A cure results in from twenty-four hours to five days, the average being about three to four days.—*Journal de Médecine*, August, 1879.

Worms in the Nasal Cavity Expelled by means of Chloroform.—A woman, twenty-nine years of age, was attacked by variola in the ninth month of pregnancy; normal accouchement occurred on the second day of the eruption, the disease following its regular course. During the period of desquamation, a fly entered the nasal cavity and deposited there its eggs, which were soon transformed into larvæ. Fever, violent cephalalgia, and multiplication of the larvæ followed. Insufflations of calomel and injections of salt water were useless. Dr. Garuco then had recourse to inhalations of chloroform, and, at the first trial, seventy larvæ were expelled. This treatment was repeated every day, and completely relieved the patient. Experiments with some of the larvæ showed that, at first, chloroform caused very active movements, after which all movements ceased and complete inertia ensued.—*Gaz. Med. Ital.*, and *La France Medicale*, August 23, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 4, 1879.

THE MECHANICAL TREATMENT OF POTT'S DISEASE.

I.

From the earliest times of which we have any medical history to the present, the treatment of spinal deformities has received the attention of physicians, and yet it seems to be an unsettled question how these cases should be managed. It is true that the pathology of this affection is now well understood, and the indications for its treatment are distinct; yet if one consults the different treatises on this subject, he will be astonished at the divergent views expressed by their authors as to how these indications shall be carried out. There has, we fear, been too much dogmatic writing, special pleading, and claiming of better results than can be obtained by any method of treatment in a disease of the nature of the one we are considering.

It seems to us that a review of the subject of the treatment of spinal deformity may not be out of place at this time. The indications for treatment in angular curvature are to place the parts at absolute rest, to remove pressure from the diseased bone, and at the same time to permit the patient to go about. The bones involved in the disease are so situated that only the posterior portion is accessible for the purpose of any direct support, and fixation can only be obtained indirectly by rendering the whole trunk immovable in either an antero-posterior or a lateral direction. Whatever mechanical device, splint or brace is used must, therefore, encircle the whole body. The scapulæ, not being fixed points, are entirely useless for the purpose of support or extension. Any apparatus, therefore, that depends on an axillary crutch to assist in supporting or extending the spine, is constructed on a wrong principle, and will prove a failure so far as the crutch is concerned. The spinal column, with reference to support when it is diseased, may be divided into two parts, namely, that above and that below the seventh dorsal vertebræ. Below that point dependence can be placed in the encircling bandage or brace; while above, support must be provided for the head, so as to keep the parts above from pressing on and irritating the diseased points.

We have mentioned the seventh dorsal as the point above which support for the head should be provided. Dr. Wyeth says the fourth dorsal; but it is necessary that the support should extend considerably above the point of disease in order to obtain fixation, and we think that it is much better to err on the side of supporting too much rather than too little. This is accomplished by either a chin-piece, as in Taylor's brace, or by suspending the head, as done at the Hospital for Ruptured and Crippled, and by Dr. Sayre, and then throwing the part back so as to transfer the weight as much as possible from the bodies of the vertebræ to their transverse processes. We think that all orthopædic surgeons agree in regard to the above points. The question is, How can this be best accomplished? There has, unfortunately, arisen a personal element in the advocacy of this or that mode of meeting this indication. Dr. A condemns as worse than useless the apparatus advocated by Dr. B. Dr. B considers Dr. A's bandage filthy, etc., while Dr. C thinks that both Dr. A's and B's splints fail fully to meet the indication, but that he has one that is *absolutely* perfect. Patients who, before having it applied, had to be carried on a stretcher, after having it adjusted immediately walked about. The truth is, that *any apparatus or bandage* that gives *good* support to a diseased spinal column is a good spinal brace, no matter how or of what material it is constructed. It would be as foolish to contend that there was only one splint for the treatment of a fractured limb as to confine the treatment of caries of the spine to one pattern of brace.

Spinal supports may be divided into two classes, namely, those made of steel (as Taylor's), and those made of some material that hardens after being applied—as the plaster-of-Paris jacket, the felt splint, or the paper mould. We will mainly refer to the use of the plaster-of-Paris bandage, or jacket, as it is more commonly called, and the steel brace.

Those who use the steel brace claim that it is cleaner, is less liable to get out of order, and meets the indication better than the plaster-of-Paris jacket; while, on the other hand, the advocates of the plaster-of-Paris jacket think that it is easier applied, that it is more comfortable, and that better results are obtained by its use than from any other splint or brace. In discussing this subject, we labor under a great disadvantage in not knowing the full results of treatment. In the case of fractures of the limbs we have an absolute standard to guide us, and statistics can be relied upon. But in Pott's disease there is no fixed

standard, and what one might call a good result may not be recognized as such by another.

At the recent meeting of the American Medical Association, Dr. Sayre presented statistics of the results obtained by him in one hundred and nine cases of spinal disease. We have not seen the paper, only the table, and in the absence of the former, and of any similar tables prepared by others working in the same department, it would be unwise to draw any conclusions. The exhibit is certainly excellent; but in dealing with a subject of this kind we must not forget that a low rate of mortality cannot be entirely attributed to the mode of treatment adopted. The aim is for something beyond the mere saving of life—it is the prevention of deformity, or any further increase of it; and in fact it is upon these elements that the real value of tables of statistics must depend.

It is true that every year or so papers are read before one or more of the medical societies on "my method" of managing cases of Pott's disease, and patients are exhibited illustrating the results obtained; but we have always noticed that they are those that have done remarkably well, and, it is to be feared, are not a fair sample of the general results. There are many, very many, cases that do badly, no matter what mode of treatment has been adopted, and of these we hear nothing. For disease in the lower dorsal and lumbar region, as good support can be obtained by the use of the plaster-of-Paris jacket as with a Taylor's brace. Its drawbacks are that in young children it will get soiled, no matter how much care is taken, and it is liable to chafe, even when put on by those thoroughly skilled in its application, and troublesome eruption on the skin has been frequently seen under the splint—an accident that may occur with any form of apparatus that completely encircles the body.

It is to be feared that its advocates claimed too much for it. Any one who has had much experience in the use of plaster-of-Paris must be aware how liable a splint made of this material is to become loose after a week or so. No matter how tightly it has been fitted, the edges are liable to get soft and crumble, and a new one soon has to be applied. The same difficulty has been experienced with the plaster jacket. It is claimed that when the bandage is properly adjusted it is molded into the intercostal spaces, and that in this way the ribs are fixed. The possibility of accomplishing this while the patient is using his lung has been questioned; and then, if the difficulty were removed, the thick flannel shirt over which the plaster bandages are applied, might tend, by its elasticity, to prevent the accomplishment of this end.

Of course, these remarks apply with equal force to all supports of this character.

THE GROWTH OF STATE MEDICINE.

In examining the last annual reports of the various city and State Boards of Health, we are struck with the marked increase in the variety and value of their contents. The contributions cover an unusually wide ground, and show that sanitary science can be brought to bear not only upon social and economical, but even upon literary and artistic matters. At the present rate, indeed, hygienic law and studies will soon interpenetrate every phase and period of a civilized man's existence. The State sanitarians have already struck at the very beginnings of life. They have introduced themselves to the infant, and have mingled with scientific data the uncertain joys that attend his growth. The last Massachusetts Report proposes that the puerperal woman be at once supplied with printed forms upon which to record the physical condition and progress of her offspring. Such a plan, it is stated, has been in existence for some time in certain European cities.

As the future citizen develops, his course is attended with a constantly increased watchfulness—a watchfulness that does not forget the collection of the more abstruse scientific facts. Nearly every State Board has examined the school-houses, and has recommended, or caused to be adopted, properly ventilated rooms. The school-boy is given 250 cubic feet of air, where he used to have 25. His eyes are examined, his shoulders kept back, and the light thrown in from behind. In Boston, the boys and girls have been subjected, in addition, to anthropometrical investigations, and charts are given showing how fast the children grow under the high intellectual tension of that city.

In the report of the Wisconsin Board is a valuable paper upon the proper reading for the young; nor, upon perusal, can we do else than believe that State advice and even State regulation is greatly needed in this direction. The class of literature which includes such works as the Half-Dime Novels—works which have the odor and suggestion of an intellectual emesis—effects in time quite as much physical evil as imperfect sewers. It is evidence of breadth of view and earnest purpose that scientific bodies speak authoritatively for the State on such subjects.

It has from the first been a prominent purpose of State medicine to protect children from the contagious diseases to which they are subject. With each year more perfect methods of prophylaxis have been devised, and their application has been more widely urged. The recommendations for the prevention of scarlet fever and diphtheria issued by some of the boards—and we may refer particularly to those of Massachusetts and Wisconsin—have been valuable additions to medical science. They have been widely circulated, and, as is shown by many letters received in regard to them, they have excited much interest among the people. This has in turn reflected upon the State Boards; it has made them more popular, and the local town and city boards more numerous. In Massachusetts, sixteen of the nineteen cities and three hundred

and one of the three hundred and twenty-five towns have organized local boards of health, and these make regular reports to the central or State Board.

There is, however, no single direction in which sanitary boards have made more important advance than in that of vital statistics. The collection of such information is a comparatively recent undertaking in this country, and, as would naturally be the case, has been attended with much difficulty. A busy and practical people cannot easily be made to see the importance of registering every birth, marriage, and death. Nevertheless, a foothold has been gained, the sentiment is becoming favorable to such registrations, and already even in some of our Western States very full reports come in each year. We have learned even thus soon, through this work, something of the way in which our nation is growing. Some of the facts have an especial interest to medical men. It is shown that the birth-rate among our native-born population in the cities is approximately only 16.74 per thousand, while that of the foreign-born citizens is 35.23 per thousand. This birth-rate for native Americans is even smaller than that of the French in France. Physicians know best perhaps the true "inwardness" of this state of things; and as regards remedy, although clergymen can preach and statesmen legislate, it is the medical profession that can be of the more direct use in educating people to the beauties of a larger domestic circle, or, at least, in discouraging the means for limiting it.

It will be seen that the aims of the health boards are very far from being confined to preventing the invasion of infectious diseases. The boards are becoming educators of the people to cleaner and better domestic life; they preach against vice, intemperance, and licentiousness, as well as dirt. They are giving valuable advice to architects, book-makers, alienists, as well as to political economists and legislators. And last, but not least, to physicians; in one instance, the creation of a State Board—that of Illinois—has driven fourteen hundred charlatans from its borders.

It cannot be long before such organizations are appreciated everywhere at their full value, and become recognized as most important branches in the administrative service of a State.

INTRA-UTERINE MEDICATION.

We are pleased to give our readers in this number a very interesting summary of a discussion upon the above subject, held in the Obstetric Section of the British Medical Association, and also in the American Gynecological Society, at its annual meeting, lately held in the city of Baltimore. It is an important subject, and worthy of careful consideration by every general practitioner of medicine. The majority of those who participated in the discussion, both in this country and in the British Medical Association, favor the use of this means of treating uterine diseases; yet, as will be seen, some of the most eminent in the profession regard it as a measure that possesses only doubtful value as a general rule of practice. Upon one point there is an almost unanimous opinion—and that is, that intra-uterine injections are dangerous, especially so in the non-puerperal uterus. An essential precaution, whether used in the puerperal or non-puerperal uterus, is that there shall be sufficient dilatation of the internal os and the cervix to allow of free return of the fluid. In a subsequent number we shall be able to give our readers a more extended report of the discussion upon this and other subjects which took place in the American Gynecological Society.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

SECTION C—OBSTETRIC MEDICINE.

Wednesday, August 6, 1879.

Dr. George H. Kidd, of Dublin, President, in the Chair.

INTRA-UTERINE MEDICATION.

The discussion upon the above subject was opened by Dr. W. S. Playfair, who took the position that, like all powerful means of cure, it was capable of doing much harm when injudiciously used, but that in properly selected cases there were few methods of treatment possessing greater efficacy. So far from rendering the woman sterile, as had been claimed by some, it had, in properly selected cases, often had the effect of removing acquired sterility.

Dr. Lombe Athill, of Dublin, held that the inner surface of the body was especially prone to disease, and to effect a cure the part involved should be specially treated. He placed the symptoms indicating the necessity for intra-uterine medication under the following heads, excluding all tumors and conditions arising from anæmia: 1, derangement of menstrual function, especially dysmenorrhœa and hæmorrhagia; 2, uterine catarrh; 3, pain, especially that caused by pressing the point of the sound against the fundus. He objected to intra-uterine injections, and relied upon fluids or ointments applied by means of cotton and an applicator. The agents he employed were carbolic acid in solution, tincture of iodine, iodized phenol, nitric acid, solid nitrate of silver, zinc points, and crayons of iodoform. Carbolic acid he employed most commonly, because it was safe and efficient; iodized phenol, when a more powerful agent was required, but still it was inferior to nitric acid, which should always be applied to the intra-uterine surface through a tube or canula, and the woman should be confined to her bed for one day at least after the acid had been applied. He feared no unpleasant results when those precautions were adopted.

Dr. Robert Battey, of Rome, Ga., U. S. A., presented the advantages which the iodized phenol possessed for intra-uterine medication. A solution of one part of iodine in four of liquefied carbolic acid was a strength that had proved satisfactory for ordinary intra-uterine medication. One part by weight

of iodine to two parts of carbolic acid made a concentrated solution which could be employed to supplement the curette in the treatment of various conditions, especially cancer.

Dr. E. J. Tilt, of London, restricted his remarks to intra-uterine medication for the cure of chronic inflammation of the mucous membrane of the body of the uterus. He laid special stress on the fact that internal metritis was present in all bad cases of inflammation of the cervix, and asserted that there would be but little need of intra-uterine medication if the cervical canal was kept free of disease. There were certain conditions, however, in which intra-uterine medication was justifiable, such as internal metritis, independent of ovaritis, but complicated by menorrhagia and dysmenorrhœa independent of ovaritis, and endangering reason and life; membranous dysmenorrhœa; habitual abortion independent of syphilis and ovaritis, and apparently dependent on some morbid condition of the mucous membrane of the uterus; the dangerous reaction in the system, caused by internal metritis, independent of the amount of purulent discharge; loss of blood resisting all remedies, and threatening life. He recommended undiluted injections of tincture of iodine in cases of dangerous flooding from internal metritis, and in membranous dysmenorrhœa. Nitrate of silver in solution was apt to produce severe pelvic disease, and was discarded. He preferred to place five or six grains of solid nitrate of silver in the uterus, but was ready to welcome a better plan than that.

Dr. Gallard, of Paris, believed that in internal metritis and the various disorders that attack the interior of the uterus, cauterizations were of the first importance, and, to be serviceable to the fullest extent, they should be applied in the fluid rather than in the solid form. He referred to the beneficial use of the curette in cases of "vegetation of the mucous membrane" of the uterus.

Dr. Robert Barnes, of London, thought that Dr. Tilt represented what used to be the accepted mode of treatment, but which had long ago been left behind. The method of intra-uterine medication that he adopted—for he was an advocate of the plan—was that of "swabbing" the mucous membrane with cotton-wool dipped in medicated solutions. Of those solutions he had used iodine and carbolic acid quite extensively, and thought that each possessed its own advantages. He thought the application of iodine was the most ready way of curing all uterine affections arising from syphilis. He further believed that if the surgeon wished to do any good in certain cases, he must resort to the intra-uterine use of remedies already mentioned.

Dr. Macan, of Dublin, thought that different treatment was required for the nulliparous and the multiparous classes. In the nulliparous the disease of the uterus, in very many cases, arose from closure of the external os. Measures must be first taken to remove that condition, and with its removal the trouble above generally subsided.

Dr. Wallace, of Liverpool, had been struck by the repeated statement made by patients that they had been under treatment for years, being subjected to intra-uterine medication without any alleviation of their suffering. For uterine catarrh, although dependent on many conditions, he had great faith in vaginal douches of hot water, 80° to 120° F., and from two to four gallons, and stated that he had effected a complete cure without any intra-uterine medication.

Dr. Malins, of Birmingham, concurred in the treatment recommended by Dr. Wallace. Experience had taught him that intra-uterine medication was not required as much as had been claimed by many. He believed that in the multiparous uterus hygienic treatment was very important, and the best that could be adopted. He did not dispute that it was sometimes necessary to resort to intra-uterine medication, especially in the cases mentioned by Dr. Athill.

Dr. Lombe Athill, of Dublin, agreed with Dr. Macan and Dr. Tilt, that incision of the cervix was sometimes essentially necessary. When there was chronic endometritis he regarded it as impossible to cure the patient without incision of the cervix. He looked upon the vaginal douche as of the greatest value, and employed it freely in the Rotunda Hospital; but it was by no means sufficient in all cases.

Dr. Wm. H. Byford, of Chicago, Ill., U. S. A., believed that, in very many instances, intra-uterine medication could be adopted with safety. When he proposed to resort to the use of strong agents, such as nitric acid, he put his patient under a course of preparatory treatment: kept her quiet beforehand, and in bed two or three days after the application. He did not resort to this form of treatment until several days had elapsed after the occurrence of the menstrual period.

He thought that the condition which usually called for this method of treatment was general hyperæmia and more or less hyperplasia of all the tissues of the uterus. Menorrhagia, metrorrhagia, and leucorrhœa, one or all, were symptoms found in that condition. The remedies that could be used with the most benefit, whether hemorrhage was present or not, were vascular nervous uterine stimulants. He had not for many years injected medicine into the uterine cavity, because he thought it was attended with risk to life, and certainly it was painful.

Dr. Henry Bennet, of London, thought it of the utmost importance to secure a good general condition of the patient and the integrity of the surrounding organs before resorting to intra-uterine medication.

THE AMERICAN GYNECOLOGICAL SOCIETY.

Annual Meeting, September 17, 1879.

Dr. T. Gaillard Thomas, of New York, President, in the Chair.

INTRA-UTERINE MEDICATION.

The above subject being before the Society for discussion, Dr. James P. White, of Buffalo, remarked that in making application of fluid substances to the internal surface of the uterus, the most simple method would appear to be by injections, and that method was still advised. The experienced practitioner, however, seldom injected medicinal agents into the cavity of the uterus. He recommended the use of applicators in intra-uterine medication—long probe and cotton. He said that the uterus could not be injected with safety, but that nitric acid could be spread over the surface of its mucous membrane without danger.

Dr. Robert Battey, of Rome, Ga., followed, and presented the claims of iodized phenol as a remedy to be used in intra-uterine medication. He applied it by means of an applicator and cotton.

Dr. J. Marion Sims, of New York, without discussing directly the subject of intra-uterine medication, thought that most of the cases reported by Dr.

Battey could have been cured much quicker by other means.

Dr. Isaac E. Taylor, of New York, referred to the same method of treatment, for what had been called incurable uterine catarrh, as that mentioned by Dr. Sims; and Dr. W. T. Howard, of Baltimore, regarded accuracy in diagnosis as of the greatest importance in cases in which intra-uterine medication was suggested, for the symptoms might depend on conditions that could be removed or corrected, and thus avoid its necessity. For the condition known as fungoid degeneration, he coincided in the use of the curette in preference to intra-uterine medication. If the internal os was sufficiently dilated, uterine injections might be used, but they should not be trusted to a nurse.

Dr. Fordyce Barker, of New York, advocated intra-uterine medication. With regard to intra-uterine injections, he looked upon them as being dangerous when the cervical canal and body of the uterus were nearly normal in size; but when the uterus was enlarged, as after abortion or full labor, it was perfectly tolerant of injections into its cavity. The physician should give them himself. He then referred to classes of cases in which intra-uterine medication was more successful than any other means that could be adopted.

Dr. John Byrne, of Brooklyn, thought that the secret of success in the use of intra-uterine medication was in the accuracy of diagnosis, not only with regard to the condition of the uterus, but more especially as to the question of etiology. The further the departure of the uterus from the normal to the pathological standard, the more tolerant it became of all medication and of all interference. That conclusion he had reached after an experience extending over fifteen years and injecting the uterus more than two thousand times. With reference to injecting the uterus, however, he had long since abandoned it except after using the curette, when he washed the cavity out with salt water, *being sure that the fluid had a good return.*

Dr. Paul F. Mundé, of New York, did not use intra-uterine injections, although he resorted to intra-uterine medication by means of an applicator.

Dr. Wm. Goodell, of Philadelphia, remarked that within the last few years he had been treating uterine diseases by means of intra-uterine medication with a great deal more satisfaction than formerly. With reference to intra-uterine injections, however, if the womb was positively diseased the cervical canal would be patulous, and there was no harm in throwing fluid into the cavity; but if there was doubt, the use of the measure might better be postponed.

Dr. Nathan Bozeman, of New York, was not entirely opposed to intra-uterine medication, but regarded the most important step to be, first, to correct the displacement which was almost always present in certain cases, such as uterine catarrh.

Dr. H. P. C. Wilson, of Baltimore, advocated intra-uterine medication, and thought the chief danger arose from too much medication and too free and improper manipulation. He had abandoned injections into the cavity of the uterus.

Dr. Thaddeus Reamy, of Cincinnati, treated the cavity of the uterus by medication, but he never employed injections in the non-puerperal uterus. He dilated the cervix and used an applicator.

The President entertained the view that while intra-uterine medication above the os internum was, in many cases, exceedingly beneficial, it was, as a general rule of practice, one much more honored in its breach than in its observance. He, however, looked upon intra-uterine antiseptic injections in puerperal fever as the great sheet-anchor of the physician, by whom only they should be administered.

Correspondence.

THE ESMARCH BANDAGE IN STRAPPING THE TESTICLE.

To the Editor of The Medical Record.

Sir:—Permit me through your columns to call the attention of the profession to the use of Esmarch's bandage as a substitute for adhesive plaster in strapping the testicle after epididymitis or in chronic orchitis. A bandage of pure rubber three-quarters of an inch wide and five feet long is easily applied, keeps in position well, and exercises a uniform and general compression such as is unattainable by any other method. In applying it, the fact that each additional thickness of bandage greatly increases the pressure should be kept in mind, and the whole placed with the exercise of but little tension, as the action of the bandage is, so to speak, cumulative. In covering in the bottom of the testis the turns should be made as in artistically bandaging the head, skull-cap fashion, the adhesion of the rubber surfaces rendering the operation easy.

Stuart Eldridge, M.D.,
Surgeon to General Hospital, Yokohama.

Yokohama, Japan, Sept. 2, 1879.

CAUSE OF SUDDEN DEATH IN THORACENTESIS.

To the Editor of The Medical Record.

Dear Sir:—By accident I omitted to see the number of the Record for August 23d, and thus, until yesterday, was unaware that my note on thoracentesis had been honored by a double commentary.

In regard to that made by Dr. Beverley Robinson there is little to say, since the doctor takes pains to show that he really accepts some form of the theory that I advocated; at least to the extent of attributing *death during the operation* to a cardiac rather than to a pulmonary origin. The statement, however, that "death occurs by syncope," is not as precise as that I endeavored to formulate, since the point at issue was to determine *how* the thoracic conditions occasioned by the operation could become a cause of the syncope which necessarily precedes death.

The note of Dr. Van Santvoord contains a valuable addition to the descriptions of the events which follow the sudden aspiration of fluid from the pleural cavity. I did not mention the aspiration of venous blood which unquestionably, according to the theory, should occur. But it is evident that *this is consequent upon the exaggerated diastole of the heart*, the very phenomenon upon which I insisted as the immediate consequence of restored mobility to the chest-walls, for the blood cannot pass to the "imperfectly expanding lung" except by passing through the abnormally expanded heart.

Dr. Van Santvoord justly calls attention to the fact that, at the moment the long immobilized chest-wall first begins to move, the compressed lung is often unable to expand sufficiently to fill the restored thoracic cavity. The aspirating force of the outward-moving

thorax is therefore directed with abnormal intensity upon the heart. In other words, the negative pressure to which the heart is habitually subjected during inspiration, and by which its own diastolic movement is reinforced, is abnormally increased after rapid thoracentesis: 1st, because a part of the chest-wall begins to move which for a long time had been motionless; 2d, because the aspiration is so ineffectual on the lung. But when the diastole of the heart is exaggerated, and its cavities are enlarged, then more blood is aspired into it, both from the pulmonary and systemic veins. Without such previous cardiac dilatations the effect of thoracic suction could not be transmitted to the veins, nor could atmospheric pressure force blood into a heart contracted as in prolonged systole.

Dr. Van Santvoord's observation, therefore, far from contradicting the statement of my note, serves to bring out an interesting additional confirmation of the views therein expressed, namely, that the first effect of the operation was liable to be an exaggerated diastole of the heart; and Dr. Van Santvoord emphasizes the fact I omitted to notice, namely, that this liability was great in proportion to the delay experienced in the expansion of the previously compressed lung.

The reason that the amount of force stored in the cardiac ganglia needs to be taken into consideration is this. As there are about four pulsations or complete cardiac revolutions for every inspiration, we find the inspiratory force exerted, not merely during the diastole of the heart, which it favors, but during the systole, whose force it diminishes. Now, in estimating the effective work of the heart, we calculate especially that of the systole, and as inspiration is antagonistic to this, the pressure it determines is called negative—an expression, I need hardly say, not original with myself. If, in the circumstances under consideration, the force of the systole were increased in proportion to that of the diastole, no harm would ensue. For whatever excess of blood should have been aspired to the heart during one part of the inspiratory movement would be thrown out again before that movement had terminated. This is what happens under the influence of quinine, which also increases the diastole of the heart directly—but indirectly the systole, which becomes strengthened to correspond. After thoracentesis, however, while such powerful agencies are at work to increase diastole, there is no agency in operation to increase the systole; and, as I must beg leave to repeat, since the operations of nervous ganglia are predominantly regulated by habit, there is, during a chronic pulmonary effusion, such a diminution in the respiratory movements of the thorax that the cardiac ganglia must have been obliged *to expend less force than usual to antagonize them.* The question whether or no the heart has had to struggle against greater obstructions does not touch upon this point, which seems to me too obvious for question, and the simple collapse of the lung, more or less deprived of air, does not offer a formidable obstruction any more than do unexpanded fœtal lungs. Dr. Van Santvoord thinks that if there has been no cyanosis, the respiratory movements must have been, on the whole, normally powerful during the effusion, the exaggerated expansion of the sound side compensating for the immobilization of the other. Setting aside the fact that impending cyanosis so often constitutes the very indication for the operation, I would suggest that when it is not present it has been averted by exaggeration in the frequency of respiration. The compensation is rarely complete, except in the latent cases of hydrothorax; hence the characteristic dyspnœa. But increased *frequency* of respiration, which enables more oxygen to have access to the blood, is itself a proof of diminished *force* in each respiratory movement, hence diminished aspirations on the heart. By this, therefore, I find myself again brought round to the original thesis, that the cause of death is exaggerated cardiac diastole.

I am, sir, yours truly,

M. Putnam-Jacobi.

110 West Thirty-fourth Street.

OPIUM HABITUATION.

To the Editor of The Medical Record.

Dear Sir:—The very interesting case of opium habituation, detailed by Dr. W. F. Hutchinson in the Record of to-day, prompts me to offer some comments on the various points therein brought forward.

The complex manifestations so strongly symptomatic of direct cerebral disturbance presented at the initial visit, but which, on fuller investigation, were found largely due to a course not at first appreciated, suggest the propriety of careful query in all obscure cases of neurotic disorder as to the probability of this factor in causation—a point of importance in view of the prevalency of opiate indulgence, the facility with which it can be carried on in secret, and especially as no radical result for good can be looked for in such instances without an appreciation of this element, and treatment specifically directed thereto.

A study of the clinical history given impresses me with the belief that the varied nervous symptoms were due to a combined action of neurasthenia proper and the opiate tincture; for, with an experience covering several years, and cases in which the narcotic addiction was decidedly in excess, both as to time and quantity, I have never observed some of the signs of disturbed nervous action here presented: but "six years of almost constant pain and general nerve-exhaustion," augmented by the pernicious effect of several ounces laudanum daily taken, would be quite sufficient to provoke profound nerve-disturbance with an exceedingly complicated symptomatology.

The etiology of this case is strongly suggestive. Ten drops of laudanum for post-partum pain—repeated at first with professional sanction, doubtless; later, self-administered, unconscious of peril and unwarned by medical adviser—paved the way for years of misery, which, it is safe to say, might have been avoided, or at least greatly lessened, by the exercise of proper care in this direction, and affords further proof of the danger attending incautious opium-taking in broken-down nervous females. How many women are to-day sitting in a similar shadow is beyond our knowing; but it is known that they swell largely the ranks of opium habitués, and that a large proportion of the deviations from health which induce the use of some form of opiate, are dependent on disorders peculiar to their sex. My personal experience is entirely confirmatory of this statement, and, in conversation with an eminent gynæcologist of this city, he assured me his observations were strikingly in the same direction, and that he always strongly inculcated the virtue of extreme caution in the use of opiates in uterine derangements. When this laudable example is appreciated and put in practice by other obstetrical teachers and their pupils, many mothers and daughters of the future will have cause to be grateful for an exemption from one phase of suffering denied their sisters of to-day. The fact cannot be too strongly in-

sisted upon that the great majority of opium habitués —among *us*, at least—are such not from a mere *vicious* initial indulgence, but because their first acquaintance dates from its more or less direct professional employment, and afterwards continued for lack of that care and caution from medical advisers which it is their province and their duty to give.

The substitution of chlorodyne was an excellent idea as tending to break the chain of *habit*, which becomes of some importance where the opiate withdrawal is prolonged for weeks or months. Opium habitués, in many cases, come to attach no little importance to the fact that they know just what they are taking—they associate a certain cause and effect. Change the form of their opiate—of course without their knowledge of the substitute—break them away from the idea that they *must* have this or that, and the mental impression is undoubtedly for good. In this fact, aided by gradual decrease, lies largely the secret of whatever success belongs to the horde of vampires throughout the country who specially prey on such unfortunates. Besides, laudanum, even in chronic takers, sometimes causes gastric disturbance, which will entirely disappear if morphia be substituted; and as the latter enters into the composition of chlorodyne, this may have had something to do with the subsidence of vomiting in Dr. H.'s case which had become persistent.

There is no question in my mind as to galvanism being the main agent in cure. Something is to be placed to the credit of time and the very gradual opium decrease—four months being occupied in recovery; but that the former deserves the principal share is proven by the fact that in eight weeks, during which no opiate reduction was made, the patient had much improved, and that then withdrawal was begun and continued, which before had failed owing to the prostrated nervous condition and the lighting up of severe reflex irritation when any attempt was made. After that time, a doubly good influence was exerted, going steadily forward to health. It may not be amiss to note in this connection that, in a letter received from Dr. Hutchinson since his case was reported, he says: "I regard the quality of current in these cases of prime importance. It should be from a series of *large*, *constant* cells, ... absolutely constant—as I have found the smallest current variations occasionally productive of serious trouble." And Dr. Anstie, from a somewhat similar standpoint, wrote: "The first quality that must be absolutely required in a battery that is to be used for this purpose is, that it shall deliver its current with as little as possible variation of tension—in fact, that it shall be *constant*, and not merely *continuous*." Thus employed, we have a remedy exerting a strongly marked tonic effect on the nervous system, and consequent vitalizing action on volition up to that point where it can reassert itself and bring into play a power for good that nothing so prostrates as opium.

The success in this case of gradual opiate decrease along with treatment directed to restoring impaired nerve-tone, proves the virtue of persistent continuance in well-doing, and is sufficient answer to those professional skeptics who assert that "tapering off" will not result in cure. In many cases it will not; the weeks and months required exhausting patients' patience, and unless under professional supervision, making them very apt to abandon the effort. But even where time is an object of importance, and a prompter process is desired, entire and immediate withdrawal is scarcely ever advisable, entailing as it does severe distress of mind and body, both unwise and inhumane, inasmuch as the good result can certainly and speedily be secured by a method of treatment largely free from such suffering, the plan of *preliminary sedation*—a happy medium between the two extremes—to which I have referred in a former paper. This, which has been pronounced "the most sensible and scientific," offers in suitable cases advantages superior to any of which I have knowledge, and must be observed or experienced to be appreciated as it deserves.

In the case under consideration the treatment was eminently judicious, and patient and physician alike are to be congratulated on the brilliant result.

J. B. Mattison, M.D.

Brooklyn, Aug. 9, 1879.

DESTRUCTION OF THE CEREBRO-SPINAL CENTRES.

To the Editor of The Medical Record.

Dear Sir:—In your issue of Sept. 13, 1879, Dr. Thomas W. Poole has published an article in which he calls attention to an assumed fallacy in the generally received theory that the effect of destruction of the cerebro-spinal centres is to produce vaso-motor paralysis, and, consequent thereon, arterial relaxation. His objection is based on experiments made by himself on rats, kittens, puppies, and frogs, whose spinal cord and cerebral ganglia he had destroyed by opening the upper part of the spinal canal and breaking up the organs in question with an instrument introduced through this opening. The result of these experiments was "that, so far from the arteries being relaxed or dilated with blood, we invariably found them empty, pale, and contracted; while, in marked contrast, we as uniformly found the entire venous system distended, and its swollen tubes dark blue from the quantity of blood contained in them. We found this fact less palpably shown in frogs," etc. "But in the mammalian subjects the emptiness of the *aorta and its chief branches*, the smallness and paleness of the *iliac arteries* contrasted with the corresponding dark and swollen veins," etc. (italics the present writer's). From this quotation it is apparent that Dr. Poole has confined his observations to the condition of the *great* vessels ("aorta and its chief branches," "iliac arteries"). Now, these large vessels, it is well known, are virtually elastic tubes with no *con*tractile power whatever. Muscular cells are entirely absent in the aorta near the heart (Eberth, in Stricker's Manual of Histology, Wm. Wood & Co.'s translation, 1872, page 196), and insignificant in number in the other great arterial trunks. Consequently the paleness and "contraction" (*i. e.*, retraction) of these vessels are not *considered in themselves* an index of vascular contraction or relaxation. They are simply distended or relaxed, like so much rubber tubing, according as there is or is not a distending force applied to them.

The *con*tractile fibres are to be found in considerable numbers only in the smaller arteries and arterioles, and here it is—not in the large vessels at all—that we should look for the effect of nerve-action on the vessels.

If the small arteries and arterioles were paralyzed, it is perfectly obvious that the passage of the blood through them into the veins would be easier than if they were strongly contracted. If, then, the left heart and arteries are, in reality, as we suppose is generally assumed, emptied by the final *con*traction of the heart, and in the case of the great vessels the final

*re*traction of their elastic walls, what we would expect to find in cases of vaso-motor paralysis and consequent relaxation of the *con*tractile arteries, is exactly what Dr. Poole *did* find, only, if possible, more pronounced. The obstructions to the performance of this final contraction and retraction being more than ordinarily small, the work would be performed, if possible, with more than ordinary completeness. If the small arteries had *contracted*, as Dr. Poole has assumed, the blood would have been dammed back in the great vessels and heart; obviously quite a different condition of affairs would rationally, in accordance with the above-mentioned theory, be expected, *i. e., engorgement of these viscera with the dammed back blood.*

It is not apparent, however, from Dr. Poole's paper, that the great vessels were, in his experiments, found to be any smaller or paler than they would have been in death from any other cause. The supposition that the left heart and arteries are emptied at death by the final *con*traction of the heart, the final *re*traction of the elastic vessels, and a final *con*traction of the muscular arteries, has always seemed to us very unsatisfactory. That the left ventricle can empty itself by its final contraction is perfectly conceivable. That elastic tubes which have only a retractile power, and which cannot reduce their lumen below a certain fixed diameter can empty themselves is perfectly *in*conceivable. That the small arteries, being provided with organic muscular fibres, may possibly reduce their lumen to zero by the gradual contraction, characteristic of that variety of muscular fibre, may be possible for anything the writer knows to the contrary. Some force, other than any which this supposition supplies, is very obviously necessary to explain the emptying of the great non-contractile vessels. This force has been supposed to exist in a *suction* exercised by the right heart and muscular arteries. How a soft, flabby, muscular bag is to actively dilate and produce any such effect we cannot conceive. How hollow muscular cylinders by slowly reducing their calibre to zero, even supposing that a vermicular motion like that which the intestines undergo, can produce any such effect, is equally incomprehensible. The only available hypothesis remaining seems to us the theory advanced by Prof. W. H. Draper in his "Human Physiology" (1856, page 130, etc.), that "capillary attraction" is a force in the circulation.

Dr. Draper points out the fact that in plants we have circulation without any organ of propulsion (heart). The agent which induces this circulation is probably the affinity of the vegetable cells for the nutriment contained in the sap. When the sap reaches the leaf it undergoes chemical changes which, together with the loss of substances given out to the cells, destroys this affinity or attraction. The cells then attract the fresh sap below that whose virtues are exhausted, so that this fresh supply is drawn upward and the effete and used-up sap is displaced. Similarly, Dr. Draper argues, an attraction may exist between the arterial blood and the tissues which need the oxygen and other nutriment which the blood brings to them. This nutriment once delivered, and the excrementitious matter (carbonic acid and possibly other effete material) having been substituted in its place, this attraction may cease and the blood become venous, may be hurried on by that which is coming behind and which is being drawn toward the tissues by the attraction existing between it and them.

It may be true that this force is too insignificant to be of moment during life when the heart is in full vigor. But may it not be by this force, this "capillary attraction" so called, that, just after the cessation of the heart-beat, the blood is drawn, very gradually perhaps, from the arteries and heaped up in the veins? That this process is, as a matter of observation, slow, would be inferred from the following quotation from Dr. W. B. Carpenter's "Principles of Physiology," 5th Am. Ed., p. 334 (alluded to by Dr. Poole in another connection): "The contraction of the arterial tubes" (*i. e.*, just after death), "is so great as to produce for the time a great diminution in their calibre, and this, doubtless, contributes to the passage of the blood from the arteriæ into the venous system, *which almost invariably* takes place within *a few hours* after death" (italics ours). Dr. Poole, we would remark parenthetically, refers to this sentence as "a further proof" of his theory. It seems to us hardly justifiable to assume an identity between this post-mortem phenomenon and vital contraction. The rigidity of the *voluntary* muscles after death, which is one and the same process as the "contraction" of the *involuntary* muscular coats of the arteries after death, is very unlike the contraction of these muscles during life. One might just as rationally call rigor mortis and tetanus one and the same thing.

It may be objected that the supposition of "capillary" attraction or *tissue* attraction as a force in the circulation of the blood, is somewhat transcendental and not proven. It is at least supported by strong analogy, accords perfectly with all observed facts as far as the writer knows them, and is far less objectionable, it seems to us, than to suppose that the last feeble throb of a dying heart, and the retraction of a system of elastic tubes following this last puny effort, aided by a slow contraction of the muscular arteries, are capable of driving several ounces of blood through and out of this same system of elastic tubes into the veins, especially as this slow contraction of the muscular arteries, unless, indeed, a vermicular motion similar to that in the intestines is assumed to take place, must, in driving the blood out of the contracting vessels, force it backward into the great vessels as well as forward into the capillaries and veins, there being no provision in their anatomical structure against regurgitation.

Some light on this subject from the physiologists is desirable.

Dr. Poole thinks it "absurd" to believe that "a little brandy," a "stimulant" which "produces flushing of the face" can produce "paralysis" of anything. Now, any organ is increased in functional activity by having sent or admitted to it an increased supply of arterial blood, if we rightly recall prevailing theory on the subject. If nature chooses to accomplish this by causing relaxation of certain muscular fibres in the walls of certain arteries, we can see no intrinsic absurdity in the process, any more than we can in the relaxation of the vesical and anal sphincters during the active physiological processes of urination and defecation. Relaxation of a muscle is not necessarily paralysis. The term *paralysis* implies a more or less permanent lesion of a nerve-centre (which interferes with the *generation* of nerve-force, or with the *perception* of an irritation transmitted from the periphery to the nerve-centre) or of a nerve-trunk or nerve-periphery (which interferes with the *transmission* of nerve-force to the tissue-elements to be acted on), or with the *conduction* of an irritation from the periphery to the nerve-centre. The general relaxation of the voluntary muscular system of a healthy man during profound sleep is *not* general paralysis. The condition of the muscular arteries in the face of a man flushed by brandy is more properly spoken of as relaxation rather than as paralysis.

That Dr. Poole may be correct in his belief that muscular contractility is inherent in muscular fibre, and independent of nerve influence, seems probable enough, and the supposition is one which, as he intimates, is not original with himself.

How soft, hollow muscular cylinders can actively dilate themselves, is a mechanical problem which must be worked out by its originators before they can reasonably insist on its acceptance as a fact by others. It has been explained, we are aware, by the fact that the longitudinal muscular fibres contract, and as a result of contraction become shorter and increased in diameter. As a result of this increase in diameter, they are said to shoulder each other away from the centre of the tube (see figures), and so increase its lumen. In the gross caricature which we have drawn, this may seem plausible enough. A single glance at a microscopic section of a real artery will demonstrate the feebleness, to say the least of it, of this hypothesis; yet it is the only one, as far as we know, which has been advanced on the subject.

It seems most plausible to us to assume that muscular fibre does possess an inherent power of contractility independent of nerve-action, and that nerve-force acts merely as an excitor or inhibitor of this inherent power. This we suppose to be the generally received theory. Very truly yours,

R. Van Santvoord, M.D.

66 West Eleventh Street, Sept. 19, 1879.

COMPOUND GELATINE MEDICATED TENTS.

To the Editor of The Medical Record.

Dear Sir:—Every practitioner must at times have desired to treat diseased mucous sufaces by a method less abrupt and less transient than the application of medicated solutions, by syringe, or spray, or sponge.

This feeling induced me in the course of the last winter to employ gelatine as a vehicle which, by slow solution in the natural fluids, should give a continuous supply of the agent employed to treat the morbid conditions.

The first product of this effort, though very crude in form, showed that the idea was valuable, and through the very careful and prolonged studies of Mr. Otto Boetcher, of the firm of Spangenburg & Boetcher, the profession now may have the opportunity of determining the range of its useful application.

Mr. B. will furnish them with tents or bougies, medicated to their taste; the methods by which he has reached the present perfection of product not being known to me.

These bougies are of the size of a rye straw—6 to 8 mm.—are smooth of surface, and dissolve in the mucous channels in from one-half to two hours, leaving nothing but fluid bearing the medicament employed.

They are, when kept in glass vials, as pliable and smooth as a French urethral bougie; but if exposed to ordinary dry air become as rigid as whalebone rods in an hour or two. If then returned to the bottle they become soft again.

I have employed them, *first*, in the nasal cavities, being able thus to direct the application much more accurately to a limited area than by injection or spray; *second* (and it is for this purpose that they will be found most valuable), in the cervical canal and in the cavity of the corpus uteri; *third*, in the female urethra; *fourth*, in the rectum.

Those which I first used in the nasal passages were medicated with sulphate of zinc and tannin and carbolic acid.

The uterine tents are for the most part medicated with iodine or iodoform. Those of iodine contain 6 per cent. by weight of the pure crystal of iodine. Those of iodoform contain 25 per cent. by weight.

I have found no method of treating the endometrium with these substances so safe, so easy, so painless, and so efficient as this. The tent, two to two and a half inches in length, is taken in a pair of uterine forceps, dipped for a moment in water, and then pushed through a speculum into the os uteri. Its surface is so well lubricated, and it is so pliable and yet so firm, that it will be readily pushed on to the fundus uteri, and may be left there to dissolve *in situ*.

This I constantly do, and think I have cured catarrhs thereby in less time, and much more thoroughly, than by the cotton-wrapped application.

The gynæcologist will ask: Do you not have uterine colic sometimes? I have not had a case in which the patient complained of any discomfort from the placing of the tent or afterward. They do complain that iodoform makes them disagreeable and unfragrant, but that is all so far as I know.

Dr. H. T. Hanks, who has made large use of them, tells me that he has had some colic in two cases out of several score.

Iodine and nitric acid, as applications to the endometrium, have, in both English and American practice, nearly superseded all other agents. Their great value is endorsed by almost every gynæcologist. To them, and through the convenience of this method, iodoform will be added.

The iodoform tent has been most largely used by Dr. Hanks; the iodine by myself, for chronic endotrachelitis, endometritis, salpingitis, erosions, hemorrhages, hyperplasias, etc.

Aside from these, Mr. Boetcher has prepared tannin, tannin and iodoform, tannin and zinc, and various other tents, and will prepare any which he may be desired to supply, on short notice.

W. M. Chamberlain, M.D.

68 West Fortieth Street, Sept. 22, 1879.

Obituary.

SETH WESTON WILLIAMS, A.B., M.D.,

NEW YORK.

Dr. Seth W. Williams, son of the Hon. Chas. Williams, of Nashua, N. H., died after an illness of one week, on the morning of September 20th, at the Preble House, in Portland, Maine, of softening of the brain. The disease, as the autopsy showed, was limited to the right lobe of the cerebellum and corresponding side of the fornix.

When taken sick, Dr. W. was away from home spending his vacation at the seaside, and not until a day or two after the commencement of his illness did he recover consciousness sufficiently to make known his name or residence. Throughout the remainder of the sickness, however, he retained his mental faculties, and, although surrounded by the ablest physicians of New York and Portland, kept prescribing for himself and making frequent diagnoses of his condition.

The deceased was a graduate of the Nashua High School and of Phillips Academy, Andover. He en-

tered Yale in 1868, and, after remaining, on account of feeble health, one year away from college, received the degree of Bachelor of Arts. After graduation, Dr. W. travelled for several months in Europe and the Holy Land. On his return to America he began the study of medicine in the office of Dr. Jas. R. Wood, of New York, and received in the spring of 1876, from the Bellevue Hospital Medical College, the degree of Doctor of Medicine and the Flint prize for excellency in physiology. The same year he went abroad a second time, and, under the direction of Prof. Salsbach, of Heidelberg, pursued a course of study in the German classics. In the fall of 1876 Dr. W. became interested in the study of pathological anatomy, which he pursued as a student of Prof. Virchow till the following year, when he returned to Heidelberg, to begin a course of special work with the microscope in the laboratory of Prof. Arnold.

After having acquired the knowledge for which he visited Europe, Dr. Williams returned to New York, and was admitted to Bellevue Hospital. He was assigned to the Third Medical Division, and would have been the house-physician of that institution after the first of October of this year. While performing his many and varied duties at the hospital he found time to prepare a most elaborate and exhaustive article on the "Etiology and Pathology of Pott's Disease," which was presented to the Faculty of the Bellevue Hospital Medical College, and was awarded the Sayre prize of $200 for originality of research and clearness of thought.

The funeral services were held at the residence of his father, ex-Mayor Williams, at which the attendance of relatives and friends was very large.

Purity of thought and of action were the silent forces that drew about him a large number of friends. He endeavored to make his life one of usefulness, and seriously entertained the idea of becoming a missionary physician under the auspices of the American Board of Commissioners of Foreign Missions. An abiding faith in God and conscientiousness in the discharge of every duty, were the distinguishing traits of his character.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Sept. 21st to 27th, 1879.

Webster, W., Major and Surgeon. Relieved from duty at Fort Warren, Mass., and assigned to duty as Post Surgeon at Fort Preble, Me. S. O. 167, Dept. of the East, Sept. 22, 1879.

Forwood, Wm. H., Major and Surgeon. The leave of absence granted him from Headquarters, Dept. of the South, extended two months. S. O. 218, A. G. O., Sept. 20, 1879.

Brewer, J. W., Capt. and Asst.-Surgeon. Granted leave of absence for six months on surgeon's certificate of disability. S. O. 219, A. G. O., Sept. 22, 1879.

Tremaine, W. S., Capt. and Asst.-Surgeon. So much of Par. 3, S. O. 195, Aug. 25, 1879, from A. G. O., as relates to him, is revoked. S. O. 220, A. G. O., Sept. 23, 1879.

Kimball, J. P., Capt. and Asst.-Surgeon. Having reported in person at these headquarters, assigned to duty at Ft. Sanders, Wyo. Ter. S. O. 82, Dept. of the Platte, Sept. 20, 1879.

Taylor, B. D., First Lieut. and Asst.-Surgeon. Granted leave of absence for three months, with permission to apply for an extension of one month. S. O. 222, A. G. O., Sept. 25, 1879.

List of Changes in the Medical Corps of the Navy for the week ending September 19, 1879.

September 15th.—Pd. Asst. Surgeon A. A. Austin, detached from the Colorado and ordered to Navy Yard, Norfolk, vice Assistant Surgeon H. T. Percy, detached and ordered to Coast Survey duty.

September 16th.—Pd. Asst. Surgeon F. Anderson, leave extended six months.

September 18th.—Surgeon J. W. Coles, ordered to hold himself in readiness for duty on U. S. S. Nipsic.

Surgeon G. F. Winslow, detached from the Wachusett, and to hold himself in readiness for duty on U. S. S. Vandalia.

Surgeon J. B. Parker, detached from special duty and ordered to the Wachusett.

Asst. Surgeon Charles W. Rush, detached from Naval Hospital, New York, and ordered to the Receiving Ship Colorado, New York.

Medical Items and News.

Contagious Diseases — Weekly Statement.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 27, 1879.

Week Ending	Typhus Fever	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 20, 1879.	0	8	41	1	38	13	0	0
Sept. 27, 1879.	0	31	31	3	18	35	0	0

The Yellow Fever.—The number of new cases of yellow fever developed in the city of Memphis from September 24th to September 30th, inclusive, was 84, and the number of deaths that occurred was 42. The total number of new cases for this year to October 1st is 1351, and the total number of deaths, 451.

The University Medical College.—The introductory lecture of the regular winter course for 1879–80, was delivered on Tuesday evening, September 30th, at 8 o'clock, by Prof. John C. Draper, M.D., LL.D. Subject, "Medical Education."

The College of Physicians and Surgeons.—The opening exercises of the seventy-third regular winter session of this institution took place on Wednesday evening, October 1st, at 8 o'clock. The introductory address was delivered by Prof. Henry B. Sands, M.D.

Columbia Veterinary College.—The opening exercises of the second regular winter session took place on Wednesday evening, October 1st, at 8 o'clock. The introductory address was delivered by Prof. Thos. H. Hawkins, M.D., V. S.

The Bellevue Hospital Medical College.—The exercises at the opening of the regular course of lectures were held on Wednesday evening, October 1st, at 8 o'clock. An address was delivered by Prof. Austin Flint, and was followed by remarks by Prof. James R. Wood, Emeritus Professor of Surgery, and by Dr. Thomas H. Burchard, of the Alumni Association.

The *American Journal of Electrology and Neurology* says that "in May last the New York County Medical Society admitted to membership a graduate of the New York Homœopathic Medical College."

Original Lectures.

THE PRESENT STATE OF THERAPEUTICS.

AN ADDRESS

DELIVERED AT THE OPENING OF THE FIFTY-SIXTH COURSE OF LECTURES IN JEFFERSON MEDICAL SCHOOL.

By ROBERTS BARTHOLOW, M.D., LL.D.,

PROFESSOR OF MATERIA MEDICA AND GENERAL THERAPEUTICS.

(Reported for THE MEDICAL RECORD.)

I HEARD, but a few years ago, a very able teacher, himself a Professor of Practice, declare that if the four great chairs of Anatomy, Surgery, Practice of Medicine, and Obstetrics were well filled in a medical school, it was of little consequence who occupied the others; and as for Materia Medica and Therapeutics, any old woman could teach that. His was the traditional old woman who knew how to prepare catnip, tansy, and similar teas, and on special occasions could administer castor oil — an amount of therapeutical knowledge sufficient now for the leaders of French medical practice, if we may credit some recent reports from Paris.

Scientific physicians have usually held therapeutics in small esteem, doubtless because it had small deservings. In Bichât's time it was a feeling of contempt, which found expression in his famous declaration: "Materia Medica is a shapeless mass of inexact ideas, of observations often puerile, of imaginary remedies, strangely conceived and fantastically arranged." No one possessed of any knowledge of the subject, could now, on examination of the therapeutics of that day, deny the justice of Bichât's denunciation. It was an incongruous mixture of empirical notions, based on the crude theories of various medical philosophies—partly humoralist, partly solidist, partly of the Italian contra-stimulant school. It embraced the mechanical and chemical theories of the great Boerhaave, the vitalistic mysticism and the expectant practice of Stahl, and the solidist theories of Hoffmann. The whole mass was hardly in advance of that condition of therapeutics against which were levelled the shafts of Montaigne, the jests of Molière, and the morbid fancies of Rousseau. In fact, it was not until the birth of modern physiology that scientific therapeutics became possible, and that epoch was at a period within the memory of men now living. It may seem almost incredible, but it is true, that any considerable body of scientific facts in therapeutics has been the product of the last twenty years—for scientific therapeutics must always follow the course of discovery in physiology. Even now, there must necessarily be two methods pursued in advancing the knowledge of therapeutics: the empirical or rational, and the physiological or scientific. The empirical method is based on the principle, as ancient as our art, that a remedy which has cured a case of disease must also cure analogous cases. The scientific method is the application of physiological research to ascertain the actions of medicines, and on this sure basis is predicated the use of remedies in the treatment of disease.

The inherent difficulties of the subject, it must be admitted, are in large part responsible for its tardy development. In part its slow progress is due to an unreasoning conservatism, which admits of but one road to the acquisition of truth. Even now there are many so-called practical men who are disposed to sneer at physiological therapeutics, and to make themselves unhappy over achievements which experience can utilize, but has had no agency in accomplishing. They should reconcile themselves to the inevitable by the philosophy of the old Spanish proverb: *Let the miracle be done, though Mahomet do it.* They should be satisfied with the progress of truth, though they may not approve of the means by which that progress has been achieved.

But the most vehement reactionists are yielding to the force of therapeutical discovery accomplished by physiological methods.

Thus, one of the most eminent therapeutical authorities of our day has declared in a preface written so recently as October, 1874: "In the first edition of this work the author contended against the mischievous error of seeking to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation, and reflection have tended to strengthen his convictions upon this subject, and to confirm him in the faith that clinical experience is the only true and safe test of the virtues of medicines." The same author, in another work on the same subject, after another five years of study, observation, and reflection, says, in a preface dated 1879: "Whenever it seemed possible, an attempt to apply the results of physiological experiment to therapeutical uses has been made; for although the two fields of inquiry may not be so organically connected as to render the former a guide to the latter, it is, nevertheless, true that a scientific explanation of the curative powers of medicines must be sought in the results of their experimental operation upon the animal functions."

No revolution of opinion could be more complete; no renunciation of heresy more absolute. In 1874 empiricism is the true guide, in 1879 physiological experiment. This, though somewhat sudden, is significant of a change which is taking place in the last strongholds of empiricism. Such a quotation must satisfy the doubts of all—and they are legion—who respect authority and are governed by its utterances.

I hope I shall not be misunderstood. Far be it from me to abate one iota of the just fame of the author whose works I have quoted, or to impute inconsistency in his opinions, or to cast doubts on the accuracy of his judgments. I quote his words to demonstrate the revolution which has taken place by the application of the modern, scientific methods, with results so convincing, that the deepest convictions from wide learning and extended experience are made to yield. Honor and praise rather to the honesty of him who can surrender his own cherished convictions rather than do violence to truth.

Revolutions do not go backward, and they are apt to be radical in medicine. Furthermore, it is surprising to what extent fashion rules current medical opinion and modes of practice. Do the leaders in medical thought take a certain direction, their followers pursue pell-mell. This is observable now in the revolution which has taken place with respect to empiricism in therapeutics, and in certain quarters there exists a disposition to ignore all that has been accomplished by it, and to rely exclusively on the physiological method. This extreme tendency ought to be resisted in so far as there is danger of putting aside some of our most valuable acquisitions. It is far wiser to possess us of every aid which either method can offer—to accept the scientific facts which an exact physiological research can contribute, and to retain and extend that knowledge, the truth of

which has been confirmed by the experience of generations of accurate observers. In fact, when we come to investigate the subject we find that the physiological method is not free from sources of fallacy, from contradictory observations, from conclusions that subsequent investigations show to be erroneous. I freely admit that it is less hampered and overgrown by errors and contradictions than is the empirical method, but there are uncertainties and confusion which ought, if possible, to be eliminated. The first step necessary is to have a clear conception of the sources of error, and I think we may spend a part of this hour very profitably in an attempt to measure them. The important question is: What are the difficulties in the way of right conclusions respecting the actions and uses of our remedies, especially their value in the treatment of disease?

We may certainly place foremost the imperfections of man—the limitation of our faculties. Then comes the absence of the necessary training, or its insufficiency, and the utter lack of power of logical analysis in many of those who occupy the position of authorities. These mental defects and faults of training can never be overcome. "In the conduct of life," says Mr. Mill, "wrong inferences and incorrect interpretations of experience, unless after much culture of the thinking faculty, are absolutely inevitable; and with most people, after the highest degree of culture they ever attain, such erroneous inferences are as frequent, if not more frequent, than are correct inferences correct interpretations of experience." Such being the case, it is not surprising that in a matter so beset with fallacies as the estimation of the curative power of a remedy, that there must be few qualified by natural powers, and by training for the task. The best equipped and most carefully trained intellect may not possess the power of observation; it may be unerring in the conclusions formed from the facts submitted, but the faculty of discernment, of seeing things as they exist may be deficient or inaccurate. That which Mr. Mill calls "mal observation," consists in "something that is not simply unseen, but seen wrong." With the best intentions, the purest conscientiousness, men making observations—trained observers—differ surprisingly in their accounts of events occurring on a particular occasion. A capital illustration of this fact has been afforded by the discrepant accounts from the observers of the corona and the solar protuberances. Observed with the same instruments under the same conditions, the various operators have differed widely, with the usual result of heated controversy. An ingenious theorizer has shown that the difference lay in the eyes of the observers: some were normal—some were astigmatic, myopic, etc. As in Turner's pictures, the artist's oddities appeared when he had lost somewhat his appreciation of the harmony of colors. Not long since Klein saw, in investigating the changes in typhoid, a minute organism which seemed to have an important relation to the genesis of this disease, and there was much enthusiasm expended over the discovery, but in a few months a terrible iconoclast disposed of the discovery at one blow, by showing that the supposed organism was nothing more than a bit of albumen, altered by the reagents used in making the preparation. How much easier to form accurate conceptions, and give correct descriptions of things submitted to the evidence of our senses, than the phenomena arising from occult processes in the human body. Unfortunately, many of those occupying the position of authorities, always discern that which their preconceived opinions led them to search for; other observers look at facts with vision tinted by what Mr. Spencer calls the "professional bias;" in a variety of ways, the thing is not simply unseen, but seen wrong. The salutary lesson which we learn from this is: we cannot be sure that the things which we suppose we see are actually before us, and the other and higher lesson of patient waiting and study of our supposed facts, and comparison of them with the facts of other observers.

If we observe correctly as to the range of utility of a medicine, we may fall into error in its use by ignorance of the natural behavior of the disease in which it is exhibited. Before any exact knowledge was possessed of the natural history of diseases, it was simply impossible to be accurate in respect to the influence of medicines over them. Before it was known that a crisis occurs in pneumonia somewhere from the fifth to the eleventh day, endless were the controversies as to the influence of remedies in bringing this crisis about. How valueless became all those discussions, carried on with such earnestness and heat, when the natural history of pneumonia was made out, and it was discovered that medicines had never produced the crisis, which is an entirely natural process. Most important additions have been made to the natural history of diseases within a few years past, and we have now a sure point of departure for the investigations of the future. I affirm this, notwithstanding the pessimistic declaration of Dr. Andrew Clark, made before the medical section of the British Medical Association at their last meeting at Cork. He declares that "of the natural history of most chronic diseases—of their course from first to last; of the modes in which the organism, uninfluenced by drugs, and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issues either in recovery or in death—we know almost nothing, and certainly not enough for the commonest purposes of therapeutic art." The wholesale iconoclasm of this address is everywhere remarkable, but in nothing has his zeal so outrun his discretion, as in these statements. I need mention but two classes of chronic diseases to demonstrate the error of his statements—the chronic cardiac and renal affections—in regard to which we know their course from first to last, and how the organism, uninfluenced by drugs and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issue either in recovery or in death.

It may seem a comparatively easy task to determine how far the mind influences the bodily functions in modifying the phenomena of disease, but it is extremely difficult to measure the operations of a force whose nature and source are unknown, and whose powers are exercised capriciously, and without the reign of law. A curious and most interesting book, compiled by Dr. Tuke, has lately been published, in which are brought together more thoroughly than ever before the facts scattered through medical literature, illustrating the influence of mental states on bodily functions. No one can peruse this book without being strongly impressed with the uncertainty which must attend our estimate of the influence of remedies in all of those conditions of disease over which a peculiar mental force may exert a far greater curative power. Everybody has been more or less familiar with the well-attested facts which have existed on this point, but when they are brought together, analyzed, and their lesson comprehended,

we are simply amazed to find that many morbid states, which medicines had failed even to modify, are removed or cured by a force emanating from the mind. If this mysterious force moves, how impossible to form a correct judgment of the share which a medicine or a plan of treatment had in the result.

When Sir Humphry Davy, then a young man unknown to fame, was employed by Dr. Beddoes to make observations with nitrous oxide, among the patients who presented themselves for treatment was a paralytic. Before commencing the inhalation of gas, Davy inserted a thermometer under the patient's tongue to ascertain the influence of the gas on the temperature of the body. The patient was greatly impressed with the mysterious little instrument, and declared, with much enthusiasm, that he felt the influence pervading his entire frame, and was already much relieved. Davy, observing the remarkable influence of hope and expectancy, did nothing more than gravely insert the thermometer day by day with surprising results, for in a short time a complete cure was effected. If Davy had administered the nitrous oxide, the case would have appeared in medical annals as a cure of paralysis by the gas.

When a *religieuse*, in Cincinnati, with prayer and fasting, and after a solemn service in which all of her sisterhood participated, threw herself at the foot of the altar and would not rise until healed—behold! an ulcer of the leg, resisting all other means of treatment—was cured by some drops of water, coming from the far-off, mysterious and sacred spring of Our Lady of Lourdes. In the one case it was a mere impression on the mind without the element of religious faith—a mere dependence on the efficacy of dumb glass; in the other a profound religious sentiment, than which nothing more powerful can sway the human heart—and yet the result is the same.

When we come to analyze the examples of diseases cured by powerful impressions, emotions, faith, hope, expectant attention—whatever the nature of the mysterious force—we find that the cases can be referred to one of two classes: to functional morbid states of the nervous system, or to alterations of structures—organic changes they are called—brought about through the agency of the trophic nervous system. Everybody is familiar with the plentiful examples of the first group, and the second needs no explanation to Philadelphia physicians—for in this city work has been done that has materially advanced the knowledge of the subject. In these two large and important groups of diseases, so much does the cure depend on merely psychical impressions, that it is difficult—often quite impossible—to determine how far the mental state, how far the remedies employed, contributed to the result. The practitioners of that medical jugglery who cure diseases by prayer and the imposition of hands, or by the gifts of the natural healer, understand full well the form of malady suitable for their powers. There is now in the State of Massachusetts, a preacher-doctor who cures by prayer and the imposition of hands—the apostolic method—and therefore denies to his grateful patients the privilege of recompensing him except by voluntary gifts. The pecuniary outcome of his benevolence is something remarkable, for he has now built up around him on his domain of several hundred acres, a number of stately dwellings for the reception and care of the thousands going to him from all parts of the United States. A patient of mine—a genuine Christian and a woman of the highest excellence, though somewhat credulous and a little superstitious—having heard of the wonderful cures wrought by this Massachusetts apostle, resorted to him. I had from her own lips the story of her experience. She told the great man that she was a firm believer in the efficacy of prayer, having met with many examples, and that she had come all the way from Ohio to be cured of an organic affection of the heart. When the doctor-preacher heard the nature of the malady he made a reply, in which, astonishing as it may seem, she saw no incongruity. He said: "My experience is, that the Lord rarely, if ever, interferes to cure organic disease of the heart." Nevertheless, he expressed a willingness to try, as she had come so far, and, with hands on hers, he did pray fervently, in which she joined as fervently, for half an hour at a time on three days; but my patient experienced no relief, and came home the worse for the moral struggle which she had undergone. My client, as did all who came, it is probable, left a considerable fee in the form of a gift, and was not cured of her delusion, for she heard of numerous miracles that had been wrought there, and she witnessed on all sides the evidences of worldly prosperity; and she may have inspected, for aught I know, the arsenal of crutches, canes, and ear-trumpets which these artists exhibit in proof and confirmation of their powers.

When anæsthesia by the inhalation of ether was demonstrating in the Massachusetts General Hospital, Dr. Eliottson, of London, was engaged in a far more wonderful work, teaching the great lesson, that in a mesmeric sleep surgical operations can be performed without consciousness of pain. So zealously and completely, although in the face of much obloquy, had Eliottson succeeded in convincing sceptical and conservative London of the genuineness of his work, that the discovery of the production of anæsthesia by the inhalation of ether was announced in the *Medical Gazette* under the heading, "Animal Magnetism Superseded." Up to this time the capital operations in surgery were almost daily performed in London whilst the patients were unconscious in the so-called mesmeric sleep. Although Eliottson misinterpreted the phenomena which he observed, and became involved hopelessly in the absurdities and mysticism of Mesmer, he was nevertheless engaged in the demonstration of important truths. If time would allow, I might enter more fully into that remarkable state in which there is a suspension of the methods of consciousness, and show, indeed, that the recent observations of Czermak and others on animals, is an experimental induction of the same state. It seems, indeed, that the condition of the brain in which a peculiar curative influence is exerted over morbid processes, is the opposite of that state in which the activity of the perceptive and volitional centres is in absolute suspension.

Closely allied to this subject are the remarkable phenomena of Burqism, or metallotherapy, which at first excited the ridicule of the scientific, but which seem now likely to contribute to our knowledge of this outlying department of mental and nervous processes. The results obtained by Burq, and especially by Charcot, are such as to merit the close attention of therapeutical investigators, and must, if confirmed, enter into the question of the curative power possessed by certain remedies.

We constantly hear physicians complaining that the published results of others, in respect to the utility of a particular plan of treatment, cannot be realized in their own experiences; that, although Davy cured paralysis by the inhalation of nitrous oxide, they cannot succeed, although they have carefully observed all the conditions of the experiment. They entirely overlook the fundamental fact that one physician

summons to his aid the mysterious mental force in hope, faith, expectant attention; and another represses it, not consciously to himself, by a lack of personal enthusiasm, and still more by a lack of confidence in his own powers and in the power of his remedies—fatal defects in the character of the physician which will not escape the keen scrutiny of the anxious patient. I will not use the vulgar term "personal magnetism," for it has no meaning, and the power is not a magnetic quality or power—not a mysterious gift possessed by the chosen few. That which inspires a supreme, unquestioning, all-pervading belief in the efficacy of the means proposed, is a reflex of the confidence of the physician—not a boastful, self-asserting egotism, not the blind faith of ignorant credulity, but the well-founded convictions of the enlightened therapeutist, confident in his resources from long experience of their capabilities. "The Lord is on the side of the heaviest battalions," was a favorite saying of the great Napoleon. I hope I shall not be understood to speak in an irreverent spirit. My purpose is to illustrate the lesson, that "God operates, not by partial, but by general laws;" that He gives us the faculties to acquire and to apply knowledge in the treatment of disease; that He does not suspend the laws of nature for our benefit; and that those cures which seem miracles are entirely human and easily explicable.

We derive from the whole subject the important lesson that we have in a peculiar mental state or condition of the great nerve-centres an extraordinary curative power in a large group of diseases, and that in this fact lies one of the greatest sources of fallacy in estimating the value of remedies. Furthermore, it must be obvious that the physiological as well as the empirical method—that both methods are embarrassed by wrong inferences and incorrect interpretations of experience.

The progress of applied therapeutics is equally hindered by the sources of error which I have pointed out. The end to which all our studies are directed as practical physicians is the application of remedial agents to the cure of diseases. An unprejudiced thinker to whom the subject was mentioned would assert with confidence that gentlemen engaged in a pursuit requiring the use of certain agents to accomplish the desired results, would be most solicitous to inform themselves fully in respect to those agents. He would regard it as incredible that a considerable part of our profession are either indifferent or satisfied with vague notions, and that a still larger part fall into routine methods with a few agents which have to do duty for all possible conditions. This widespread inappreciation, indifference, or ignorance of the actions and uses of drugs is due partly to fashion, partly to the unpromising nature of the subject. Within a few years past a therapeutical nihilism has been the position occupied by many of the most influential leaders in modern medical thought. This movement is a result, in part, of the overshadowing importance of physiological and pathological studies. The founding of great laboratories and the brilliancy of discovery in these departments have attracted universal attention to those studies which have become the fashion. We see on every side the efforts put forth to give this direction to medical study and teaching. The desire of the time seems to be to make students, histologists, pathologists, microscopists, rather than sound practitioners, full of the humble but necessary knowledge of the practical departments of our art and science. I hold this to be a perversion of the duty of a medical school. Its first and highest duty is to instruct students, not to pursue minute researches, but to become thoroughly accomplished physicians and surgeons. No fact is more evident than that the highest order of physicians and surgeons are not men remarkable for their knowledge of microscopy, of experimental physiology, and the other branches of theoretical medical science, and, conversely, that the microscopists and pure physiologists are not remarkable as physicians, and, indeed, cannot be. The attempt to pervert the proper purpose of medical schools, and to give a merely science aspect to medical teaching is a fashion of the time, which, if it gain more adherents, is likely to do serious mischief to the cause of medical education. For young men, allured by the glitter of scientific work, will neglect the important and really more difficult attainments of true professional studies.

It is a mere pseudo-science which is misleading so many that it has become commonplace to know something about drugs and to prescribe them; the new school of pathologists and physiologists look upon the whole business of medicine giving as unscientific, and therefore unworthy the attention of the higher order of medical thinkers. It is a very fascinating doctrine, that to be ignorant of drugs is to be regarded as superior to the commonplace—as being in the higher walks of medical life—and hence many make haste to adopt it, relying for the hereafter on mint-water in the treatment of rheumatism, and similar nihilistic absurdities. The great question of the time is, does it pay? Applying this utilitarian method to the subject, I answer, it does not pay to be ignorant of therapeutics, and I prove my position by some illustrative examples selected from those recently deceased, so as not to be accused of making invidious comparison. The most successful physicians Paris, Vienna, Berlin, London, Edinburgh have had for a generation, were Trousseau, Oppolzer, Traube, Todd, Begbie—all of whom were most careful students of therapeutics, have contributed to our knowledge of the subject, and were diligent prescribers of remedies. These great men were not only successful teachers and clinicians, but had great local renown as practitioners, and each had a large *clientèle*. I beg you will not, therefore, be misled by the depreciation of therapeutics by presumed medical scientists, who are not sufficiently scientific to feel their position assured, but must manifest their superiority by speaking contemptuously of the so-called practical branches. *Sum* is sometimes taken for *habeo*, is an eccentric rule of Latin grammar which is very applicable to the affairs of modern life, and may have been and doubtless was, strongly felt by the old Romans. To have is to be. Applying this rule to the utilitarian side of the question you may be well assured that *to have* a competent knowledge of therapeutics is *to be* a successful practitioner.

Many who have started out on a medical career with a competent knowledge of therapeutics have been disheartened by a failure to obtain the expected results. Failures of this kind arise from two causes: first, from an incorrect appreciation of what nature and art respectively accomplish; and second, from an inability to make a correct therapeutical diagnosis. The rage in our time is to make an accurate diagnosis of disease, and it is an enthusiasm to be encouraged, but there ought to be a corresponding desire to make an accurate therapeutical diagnosis—that is, to ascertain the remedy adapted to the form and character of the disease and the condition of the patient. Into this problem many complex questions enter, and he only can solve it correctly who has an intimate ac-

quaintance with the phenomena of disease, and with the whole range of rational and scientific therapeutics.

What art, what nature can accomplish, is a wide subject which I must merely mention. It is a singular fact that but few young physicians, comparatively, recognize the limits of remedial power. The result is that they may begin with a blind, unquestioning faith, but they end with an unreasoning scepticism.

Having now dwelt on the method and spirit in which therapeutics should be studied, as much as my time will allow, I must next say something of the manner in which it should be taught.

Confronted at the outset of his career with the subjects of materia medica, a student may well stand appalled. A subject which embraces the mineralogy, the chemistry, the botany, the pharmacology of several hundred articles belonging to the three great kingdoms of nature, would seem to require the undivided attention of a life given to the task. The student of medicine cannot become sufficiently well informed in these sciences to utilize them in the study of the materia medica, and at the same time devote sufficient attention to his strictly medical studies. The result is, he abandons an undertaking which seems to him hopeless, cuts the subject of materia medica, and contents himself with the fewest possible facts in therapeutics. He enters into practice with crude notions, and is given to a boundless credulity respecting the curative powers of drugs, or he cultivates a sceptical dilettanteism, or becomes a sceptic, affecting a patronizing forbearance for the weakness of those who have faith in remedies. The condition to which practitioners are now reduced in Paris is gravely stated in a letter which appears in a recent issue of the *Lancet*—so gravely that it can hardly be regarded as satirical: "No wonder therapeutic scepticism is now the rule with prescribers. Thanks to the enterprise of wholesale druggists, a host of *elegant* preparations are always at hand, which relieve the scientific *clinicien* from the ridiculous absurdity of writing a useless formula. Now that diseases are allowed to run their normal course under the watchful eye of the medical naturalist, the exhibition of an inert, but *elegant* granule, must be considered a vast improvement upon the active interference of our physicking forefathers."

No wonder that, at a recent meeting (last month) of the Paris Academy of Medicine, there were loud demands for reform. No wonder that Dr. Andrew Clark, in that recent iconoclastic address from which I have just quoted, cries out that therapeutics, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." He attributes this unhappy state of things to several causes; but the first is, that materia medica, not therapeutics, is taught in the schools, and that there is "no physician of experience and authority who teaches the subject of therapeutics."

Where must the reformation begin? Obviously the reformation is demanded in the direction which I have indicated, and which Dr. Clark so vehemently emphasizes.

We must begin by stripping the materia medica of its useless knowledge. We must relegate to the botanist, to the chemist, to the pharmacist, the subject-matters belonging to them, and retain those things having connection with the study and work of the physician. I can best illustrate this by an example selected from the vegetable kingdom: let it be nux vomica. We have first the names—botanical and chemical. Then follows the source and botanical description, which is Sanscrit to the average student, and knowledge without any use to the practitioner as such. Next comes the pharmaceutical preparations, and a description of the mode of preparing the tincture and the extracts, and an elaborate account of the separation of the alkaloids—a complexus of chemical and pharmaceutical knowledge of great utility, indispensable, indeed, to the pharmaceutist, but useless to the physician, who is not engaged in the business of a manufacturing chemist, and who cannot acquire this knowledge unless at the expense of his proper professional education. The best students who make the attempt to master the details of materia medica, acquire but a vague notion of it, and drop the study as soon as possible, except the few who expect to combine the business of pharmacy with the practice of medicine—a union which always results unhappily, and is not to be approved.

Dr. Clark complains in his energetic way that our works in this department consist of materia medica teaching largely, whereas they ought to be devoted to therapeutics only. This is an extreme view to which I must decidedly express my dissent. There is certain knowledge of pharmacy and chemistry which is necessary to accurate prescribing, and which must be taught, if we would use our therapeutical knowledge intelligently. We must know the names of the drug, the forms and preparations in which they are compounded, the active constituents, the doses, the antidotes chemical and physiological, but especially must we have full and accurate information in regard of the effects of the remedies and their uses in the treatment of diseases. All of this knowledge is immediately applicable to the requirements of the physician, and no part of it can be omitted without injury. I hold that the actions and uses of remedies is the point on which the greatest stress should be laid, and no information, empirical or physiological, should be neglected. Let the student have the minutest information from all possible sources of the physiological powers and capabilities of a drug, its behavior as influenced by idiosyncrasy and dose, its applications in the treatment of disease, the fallacies which affect a proper estimate of its powers, the special conditions in which it is useful, why it should be preferred to another remedy of the same class, and in fact any information in regard to it which may facilitate the physician's use of his armamentarium. The artisan is taught the name of the tool, the range of its uses, the mode of handling it under special circumstances; but he is not expected to acquire the mineralogy of iron and the chemistry of steel—subjects concerned with its original construction.

The information which a teacher must convey to a class is derived from two sources: from a study of the authorities who have contributed to the subject; from his personal experiences and reflections. The literature from which he gleans is a wide field and contains a multitude of workers, who differ in capacity, in acquirements, in honesty. The instructor may pursue two methods in imparting his information: he may present in order, chronologically or by subjects, a synopsis of the contribution of each individual worker; he may subject the whole to a careful analysis, weigh the merits and truthfulness of individuals, and present the results in the plainest language. The former plan confuses the student with a multitude of names and opinions that vary and are often contradictory; the latter gives him some salient points on which he may lay hold. I maintain that the latter plan is the true one—that it is the duty of the instructor to analyze the complexus of facts and opinions —to guide the intelligence of the student through a

maze to right conclusions. Those who wish to engage in investigations on their account are either advanced students or graduates, who possess the knowledge necessary to find their way through the labyrinth.

I hold, further, that the instruction should be, as far as possible, objective or demonstrative. The lecturer may content himself with stating that drugs will produce certain results—that strychnia will cause tetanic spasms, and that conia will paralyze—and he may illustrate the action of strychnia by an exposition of some famous medico-legal case, as the poisoning of Cook by Palmer, and the action of conia by recounting from the Phædro of Plato the death of Socrates; or he may at the moment demonstrate the effects of the drug by an experiment which makes the fact memorable in the student's mental experiences. The chemist who merely tells his students that water is composed of oxygen and hydrogen, and does not demonstrate it by experiment, will hardly have done his duty. The experiment vivifies the bald fact, and the impression made is permanent. But how demonstrate your therapeutical facts? This brings me face to face with the great vivisection question. Though an advocate for rightly conducted vivisections, I protest against cruelty to animals, who are God's creatures. I protest against those barbaric sports in which more animals suffer yearly—hunted to death—than have in all time been under the knife of the vivisector. More than all, I protest against that inhumanity to man—the outcome of an unreflecting sentimentality—which prevents those scientific investigations having for their end incalculable benefits to man. Some of our most important remedies and physiological knowledge of the highest importance have been, and only could have been, obtained by experiments on animals. If animals are sacrificed for the support of men's bodies, why should they not contribute to the improvement of men's minds? Your sentimental philosopher does not reflect on the humanity of the butcher, except for the toughness of his matutinal steak. Not to occupy further time with well-known arguments in favor of vivisection, I hold that the actions of drugs should be illustrated as far as practicable by experiments on animals, but the experiments must be decorous, not revolting, not cruel, and made strictly to advance or to impart knowledge for the benefit of our fellow-man. In these experiments animals have small occasion to suffer, for the medicament or the anæsthetic so far obtund the sensibility of the centres of conscious impressions that pain is not felt.

Why torture dumb brutes by experiments, which after all cannot be utilized in the treatment of men's diseases; for has it not been shown that the actions on men and animals differ—that rabbits eat belladonna with impunity, and pigeons cannot be affected by opium? I might explain to you how idiosyncrasies exist in men and animals alike, and are usually more apparent than real; but let me answer your objections by a quotation from the most competent authority of modern times—Claude Bernard. He declares in that remarkable work—"Introduction to Experimental Medicine" (p. 218)—that "experiments on animals with deleterious and noxious substances are very useful, and perfectly conclusive for the hygiene and toxicology of man. The researches on medicaments or poisons are equally applicable to man from the therapeutical point of view, for the effects of these substances are the same in animals as in man, except the difference in degree." This opinion, based on the largest experience, and after a career of brilliant discovery, might be illustrated and enforced, if I had the time, by the examples of benefits to the race obtained in this way.

The crusade against vivisection in England, which has attained extraordinary volume and force within a few years past, is an outgrowth of dog-worship, which has now become a form of religion in the upper classes of society. With hair perfumed, powdered, and curled, his canine worship sits at table with his mistress, rides in the park in the afternoon, sleeps on downy pillows at night; he has his maid to anticipate his wants, besides the undivided attention of his mistress, and when ill he is waited upon by a celebrated physician. He makes no return to society for the protection and benefits he receives; he pays no taxes; he merely barks and growls in return for the love of his mistress, and is altogether an ungrateful dog; but he has driven physiological research out of England, and the gentlemen who were engaged in an important series of investigations on the biliary secretion were compelled by him to go over to France. An epidemic of hydrophobia and the loss of several titled ladies will be necessary to prevent the apotheosis of the dog, and to put vivisection in its proper position—for a cure for hydrophobia can only be arrived at by experiments on this at present distinguished member of society.

Original Communications.

CASE OF COMPOUND DISLOCATION OF THE ANKLE-JOINT, WITH FRACTURE —RECOVERY.

By B. A. CLEMENTS, M.D.,

SURGEON AND BREVET LIEUT.-COLONEL U. S. ARMY.

The best treatment of compound dislocations of the long bones, and particularly of the ankle-joint, would seem to be still not definitely determined, wide differences of opinion existing among eminent teachers up to the present time.

Professor Frank H. Hamilton, after discussing the subject with even more than his usual ability and discrimination, determines generally in favor of resection as compared with other modes of procedure, and attaches great value to the rest and relaxation of the muscles thus secured, as well as to the greater resulting mobility of the joint, remarking that "after resection I have thus far heard of no cases in which complete anchylosis resulted;" and he writes of the the "great hazards" attending attempts to effect a cure by reduction without resection.

Mr. T. Holmes (System of Surgery, vol. i., p. 825), on the contrary, in stating the "general considerations" applicable to the treatment of these injuries, says, "that in joints of the lower extremity no bone should be removed unless absolutely necessary, and every attempt made, by enforcing strict rest and confined position, to induce anchylosis."

Billroth, in the fourth edition of his Surgical Pathology, remarks in regard to reduction alone, that "we may sometimes hope for a cure by suppuration, with a subsequent stiff joint; but, as experience shows, it is always a dangerous experiment," and he highly commends resection as compared with amputation, if the injury of the soft parts be not great; whilst in his more recent eighth edition he says, "less attempt is made than formerly to obtain movable false joints after resection, but more frequently we seek by partial

removal of the bones . . . . to secure anchylosis of the joint."

Accepting these views as expressive of the current practice, it is thus seen that these eminent authorities are not wholly agreed as to the necessity of resection, nor as to the greater desirability of motion or anchylosis in the injured joint; and whilst it may not be possible to establish such general rules as shall be applicable to every particular case, it may be assumed that the question can be narrowed to the case of particular joints, and greater definiteness and certainty in treatment secured only by carefully recording in detail the results of clinical experience.

With this view I give the history of the following case, which was under my care, as an interesting contribution to the clinical history of compound dislocation of the ankle-joint:

Musician Adolf Bill, 14th U. S. Infantry, age 24, was caught under a falling bank of gravel and stones on October 11, 1878, near Fort Douglas, Utah. He was standing at the moment of the accident, and was almost entirely covered by the earth; his companions very speedily unearthed him, and I saw him within a half hour afterwards. His right foot was lying at right angles to his leg, and on removing him to the hospital it was found that, in addition to the injury of the ankle, he had an extensive lacerated wound of the scalp, with much extravasation of blood under the scalp, near the wound; the skull was bared but not fractured; blood ran from his nostrils and mouth, his forehead, face, and chest were much contused and swollen, and he was nearly insensible. His right knee was much swollen and contused, as well as the tissues over the upper half of the right tibia, though he complained more of pain in the left lumbar region, against which, it was learned, the handle of a spade he was using had been driven. The wound in the scalp was at once closed by silver sutures, and required no further care at any time. The accident occurred at 10 A.M., and he suffered the usual symptoms of shock for three hours and a half, but by three o'clock reaction had occurred, his skin became warm, and his pulse rose to 130°, and ether being administered, I proceeded, with the kind assistance of Dr. I. F. Hamilton, of Salt Lake City, to make careful examination of the injury to the ankle-joint.

The foot was completely turned up along the inner side of the leg, lying on its side, and the tibia and fibula both protruded outwards through a straight opening in the skin over the upper part of the outer malleolus; both bones were completely denuded, for the space of three inches, of all tissue save periosteum and some connective tissue, almost as neatly as if cleanly dissected; the fibula was not broken at the usual point above its malleolus, but the extremity of the latter was broken off, leaving a rough surface, and the tip of the inner malleolus and the anterior *edges* of the articulating surface of the tibia were crushed and ground off as if the bones had been driven and twisted into the gravel with great force, leaving all the rest of the articular cartilage intact. There were no fissures or other fracture of the bones of the joint, nor were there any signs of torn tendons, and the tibial arteries were intact and the foot warm.

I removed the roughened surfaces of the malleoli and anterior *edges* of the articulating surface of the tibia with bone forceps, and after cleansing the parts thoroughly with carbolic acid in solution (1 to 40), firm extension was made by Dr. Hamilton, and the bones restored to position through the wound in the skin over the site of the upper part of the outer malleolus, it being necessary in order to effect the return of the bones through the constricting edges of the skin wound, to insert a spatula under the latter and forcibly raise and stretch them. It was then seen that this wound had plainly not been made from without, but evidently by the bones from within, there being no marks of contusion on the surface, and the edges being lacerated in slight degree, presenting the appearance of thick wet paper when it is torn: it was two and a half inches in length, and from behind forward in direction. The wound was again thoroughly syringed out with carbolic solution (1 to 40), and the edges, except at the lower angle, brought together with silver sutures. A long India-rubber drainage-tube was inserted into the joint through the lower angle, and its outer end into a bottle containing carbolic solution.

The wound was dressed by Lister's method, every detail of which was observed, except that the "protective" silk and the few instruments used were not dipped in carbolic solution. The limb was laid on a splint with a foot-rest. Morphia was given, and at 9 P.M. his pulse was 120, and temperature 98.7°.

It may be well to again observe here that but a small portion of the articular cartilage was removed, and that practically the removal of bone scarcely amounted to a resection.

The next morning, October 12th, his pulse was 104, temperature 100.9; he had slept at intervals during the night. Three measured ounces of bloody serum had been discharged into the bottle through the long drainage-tube. In the afternoon his pulse had risen to 130, he was very restless and semi-delirious, and the discharge from the tube had nearly ceased. At 8 P.M. carbolic solution was injected through the tube, and much bloody discharge forced into the dressings, which were then removed, as well as the tube itself, which was found to be perfectly pervious. The wound being further syringed out with carbolized water, the tube was reinserted with difficulty, the open angle of the original wound being nearly two inches above the cavity of the joint, and Lister's dressing was applied in every detail, it being necessary to give chloroform during the time.

Oct. 13th.—The temperature this morning had risen to 103.6, and his pulse to 120; his tongue was dry, and he was very restless and talkative. There was no discharge from the tube, and it was seen that it had not been properly reinserted last night, and it was therefore wholly removed. By 8 P.M. his pulse fell to 100, and his temperature to 101.8. His bowels moved with relief to him, and his urine was drawn off by a catheter. The knee of the injured leg was hot, much swollen, and sensitive.

The following morning, October 14th, his pulse was 104, temperature, 103°. The dressings were saturated with bloody, dirty serum, which did not, however, smell badly; they were removed, and the joint found tumefied with dirty serum. It was thoroughly syringed out, the tube now reinserted accurately, and the antiseptic dressing renewed—all under chloroform.

The knee was still more swollen and tender, as well as the upper part of the leg. The speedy good effects of clearing out the joint were manifested in the evening by his pulse falling to 100, and temperature to 100.8°. Up to 8 P.M. there had been ℥ij. of bloody serum discharged into the bottle through the tube. His tongue lost its dryness, and he slept fairly this night.

Oct. 15th.—Pulse, 100; temperature, 100.8°. No soiling of dressings, and no odor; the tube discharged into the bottle readily an ounce of reddish serum, and continued to do so without obstruction,

there being an additional ounce and a half in the vial at 8 P.M. The catheter was constantly necessary.

Oct. 16th.—At four o'clock this morning he became very restless, though at 8 A.M. his pulse was but 96. Temperature, 100.1°. ℥i. of flaky serum had been discharged into the vial, it was for the first time untinged with blood. But by 10 A.M. he became delirious, and his temperature had risen to 103°. Fearing that the tube did not discharge all the fluid contents of the joint, I removed the dressing and found the joint full, but not distended, with thin ill-looking pus. Under chloroform the joint was thoroughly injected and cleansed out, the tube reinserted, and the Lister's dressings removed. Whiskey was given in milk; he continued mildly delirious, but by 9 P.M. his temperature had fallen half a degree, and the tube had discharged three drachms more of bloody pus. He slept pretty well under the use of whiskey and morphia during this night, and on the next day, Oct. 17th, his pulse at 8 A.M. was 100; temperature, 102°. A half ounce of thin pus had been discharged through the tube, and he was rational. Owing to the curved direction assumed by the tube in passing it into the joint through the original wound, it was evident that it could not freely discharge the pus now forming, and I consequently removed it and made a free incision into the joint some two inches lower down, releasing a spoonful of pure pus, and through it inserted well into the joint a drainage-tube made of an elastic catheter. His temperature fell a half degree by 9 P.M., and there was no evidence of discharge.

Oct. 18th.—Pulse, 104; temperature, 100.8°. Dressings were much soiled, and were renewed.

The following day, Oct. 19th, there was less discharge from the joint, but the knee and upper part of the leg were much swollen. On the 20th there was fluctuation along the tibia, and a free incision was made some four inches above the ankle, giving exit to ℥iv. of normal pus.

Both by probing and injection it was determined that there was no communication between this suppurating surface just incised and the joint.

The following morning, Oct. 21st, the pulse had fallen to 84, and the temperature to 99.6°. The discharge of pus from the incision made yesterday was normal in appearance and quantity, and that from the joint more moderate; and though the temperature rose to 102.2° in the evening, the pulse was but 88. I applied a Smith's anterior wire splint to the leg, which gave him great comfort and enabled the dressings to be easily applied.

The foregoing details of this critical period of the case illustrate the now oft-told story of the necessity of securing a free discharge from wounded joints and the great and serious disturbance arising from even a few hours' retention of the fluids, and I will condense as far as may be possible the rest of the history.

He had early been put upon nutritious fluid diet; attention was given to securing a movement of the bowels, as much tympanites existed; he still complained most of pain in the lumbar region where the spade-handle had been forced against him, and it was necessary to use the catheter three to five times in the twenty-four hours.

On Oct. 22d the discharge from the joint was clear, yellow and gelatinous, and about ℥i. in quantity in the twenty-four hours.

On Oct. 25th, in the evening, he had a spasm of the muscles of the face and arms, preceded by chilliness and attended by faintness and feeble, rapid pulse, which passed away within an hour or so under the use of stimulants. He had another attack of this kind on the evening of the next day. The thumbs were turned in on the palms and pupils dilated, and he was unconscious. This was also preceded by chilliness, and the pulse soon rose to 120, and temperature to 103°. For this I gave a few drops of chloroform internally and an enema of oil and turpentine, and his bowels soon after freely moved, with great and speedy relief to all the symptoms. The high temperature was evanescent, having fallen almost to 100° by next morning, and an examination showed the wounds in proper condition, the discharge being only about two drachms a day, and thin and sticky. This spasm recurred on the evening of the 28th, and I gave a few drops of chloroform by inhalation, under which he soon regained consciousness. I concluded that these attacks were due to reflex irritation from the stomach, as he now ate very heartily, and greater care was taken in limiting the amount of his food.

On Oct. 30th he had a slight chill which was not followed by any unusual elevation of temperature, and again at noon on Nov. 2d, which raised the temperature to 104° at 2 P.M., and which were precursors of inflammation external to the joint; for, on the 5th, the inner side of the foot was red and swollen, which greatly increased, so that by the morning of Nov. 7th the foot was tense, red, and œdematous in every direction, whilst the discharge through the tube from the joint had almost entirely ceased, and the surfaces heretofore drained by it appeared to be nearly healed. It seemed clear that the inflammation was confined to the exterior of the joint. Under chloroform, I made this morning a deep incision on the inner side of the joint down to the bone itself and another on the outer side near the original wound, which had nearly healed, but no pus was discharged from either incision. In the afternoon the temperature rose to 102°, and fell one degree by 8 P.M., with pulse at 96. The following day the foot was still more swollen, there was no suppuration from any of the incisions, the temperature varied from 99° in the morning of this day to 102° on the evening of the 10th; but there was no escape of pus until the evening of the 12th, when reddish pus was discharged through the opening made over the tibia on October 20th.

On Nov. 14th a deep incision two inches in length was made down to the bone on the inner side of the foot, and free communication established with the incision over the tibia, discharging some ℥iij. of ill-conditioned pus. A long probe, passed through the tube entirely across and through the joint, failed to communicate with the new incision; but when passed through the original wound and behind the tendo-Achillis it entered the suppurating surface on the inner side. It was conclusive that all this pus and inflammation was external to the joint, whose surfaces seemed apparently healed by granulation. The next day the swelling was greatly diminished, and by the 16th the discharge of pus was small, and the patient in much ease and good spirits. By the 20th of November the discharge had diminished to one drachm per day on the inner side, and a few drops of clear, gelatinous fluid issued from the tube. On the 21st the tube was removed and a small piece inserted just within the outer edge of its site to prevent too rapid closure. At this time there was a marked difference between the pulse at 6 A.M. and at 8 A.M., it being accelerated as much as twenty beats immediately after eating his breakfast. This state of the pulse existed until the 14th of the next month, and seemed to produce no

inconvenience and to be due to no cause directly dependent on the condition of the joint.

On the 24th the foot swelled on the outer side and a few drops of pus issued from the site of the tube, which I in consequence reinserted; and on the following day an ounce of pus was discharged from the original wound. The tube was removed finally on the 28th, and the opening firmly closed at once. The same condition arose just above the instep on the 29th and on the inner side of foot on Dec. 2d, and a very slight discharge of pus, not more than two drachms occurred on the 4th, through the openings already made, with speedy relief to the tenderness and swelling.

By Dec. 6th the appearance of the foot was much improved, all the openings being closed by granulation except that over the tibia, though it continued œdematous; and a flannel bandage was tightly applied to the foot, leaving the opening in lower third of the tibia free, as there was a discharge of reddish pus from it which appeared to come from below.

This discharge had nearly ceased by the 13th, and the pulse and temperature had been for some days nearly normal, but on the 19th a general swelling and shiny appearance arose over the whole foot, and on the 20th caused much pain, the pulse at 5 P.M. of this day rising to 116°, with a temperature of 100.6°. The foot and ankle were swathed in lint wet with hot water, and covered with oiled silk, which was continued until the 23d, when half a drachm of pus was discharged from the inner side, with relief and diminution of the glazed and red appearance. A few drops of pus continued to be discharged daily. On the 24th and 25th of Dec. the pulse rose to 100 and 104 respectively in the evening, and the temperature to 101° and 102°, due, it was thought, to some excess in diet. On the evenings of Jan. 2d and 3d the pulse and temperature again rose, and speedily fell to nearly the normal on the discharge of but a few drops of pus, which appeared not to be deep-seated. This was the last disturbance from this cause and the details are given to show the great irritability of his system, and the disturbing effects of even a few drops of imprisoned pus.

On Jan. 5, 1879, the Smith's anterior splint, which had given him such freedom from pains and myself such convenience in the frequent dressings, was removed, and a course of frictions, shampooing, and the use of compressing flannel bandages adopted, under which the swelling and congestion of the foot and ankle rapidly and regularly diminished, so that he was on crutches in a few days and could walk with only the aid of a cane by about Feb. 1st.

He was discharged from the hospital on March 2d, 1879, and at that time the condition of the foot was as follows: The soft tissues of the foot and ankle were almost normal in appearance; there was firm anchylosis of the ankle-joint, and its circumference was only one-eighth of an inch greater than that of its uninjured fellow. The foot preserved its natural relation to the tibia; its lateral motions were preserved as well as the movements and functions of the toes. He suffered no pain, and before his discharge from the service on April 1, 1879, he had frequently walked with only the aid of a cane to and from the city of Salt Lake, a distance of three miles, over a rough and hilly road, without great fatigue or injury to his foot.

Although a successful result was attained in this case, it was at the expense of great risk and suffering to the patient, and of greater care and attention on the part of the surgeon and attendants than I have known necessary in a surgical experience of over twenty-five years. Notwithstanding his youth and natural vigor, his condition was certainly precarious for several weeks, and I think it will be admitted that the effort to save the foot without essential resection was certainly, as Billroth regards such attempts, "a dangerous experiment."

I am confident that it would have been better to have removed cleanly the articulating surfaces of the tibia and a thin slice of both bones, and in this sustain the opinion that resection in such cases should be preferred to other modes of treatment; and I incline to believe that both patient and surgeon may well be satisfied to secure anchylosis without seeking to obtain motion in the new false joint, and thus entail the additional risk of constitutional disturbance and perhaps of an insecure joint.

I invite attention to the use of the long drainage-tube—one end being inserted into a bottle containing a disinfecting fluid, as first practised by Mr. McGill, of Leeds, England; to the fact that the peri-articular suppuration did not depend on perforations of pus from the cavity of the joint; and to the rarity of the occurrence of this dislocation without fracture of the fibula above the malleolus.

Fort Douglas, Utah, July 1, 1879.

ASTHMA FROM REFLEX CAUSES.

By WM. PORTER, A.M., M.D.,

St. Louis, Mo.

Among many causes of bronchial asthma, reflex irritation seems to play an important rôle. In not a few cases the phenomena attending the disease cannot be explained by any theory of local lesion within the lower respiratory tract—the cause is from without. The following case affirms this:

A merchant, æt. 40, asked advice on account of obstruction in the superior pharynx. For several years he had had asthma more or less constantly, and had exhausted all the ordinary measures for relief. The inhalation of compressed air had also been administered by a most experienced physician. The paroxysms gradually became more violent as the pharyngeal condition progressed. On examination of the chest only slight emphysema was found, and an occasional coarse mucous râle heard, equally on both sides. In the pharynx the whole of the vault was filled with a gelatinous mass—small polypi closely crowded together. A probe was introduced, and, so soon as this mass was touched, the patient had severe dyspnœa, lasting several minutes. Removal of the polypi was of course advised with the hope that subsequently the asthma might be relieved by proper treatment. As soon, however, as part of the polypi was removed—which was done with difficulty, owing to the recurrence of the paroxysms of dyspnœa—a diminution of the bronchial symptoms was evident. A few days after the last polypus was removed the patient was free from asthma. Two months later there was a slight return of the old trouble. Several small polypi, which had recently formed, were removed, and the pedicle of each touched with chromic acid. Since then, eight months, this patient has been free from asthma.

It will be noticed in this case that the bronchial irritation progressed *pari passu* with the growth of the polypi; that removal of the polypi relieved the asthma, which recovered when new polypi formed, and disappeared entirely when the neoplasm was

finally destroyed. It was not thought, in the first instance, that the asthma was wholly due to the presence of the polypi, as now seems evident. The impression made upon the nerves of the pharyngeal plexus was doubtless transmitted directly to the pneumogastric through the ganglion of the trunk. It has been proven that respiration may be impeded through irritation of the pneumogastric nerves, causing approximation of the cartilaginous rings of the bronchi (Bert and Traube), and in this instance the source of the irritation was in the pharynx.

Another case, in some respects similar: A gentleman, æt. 37, who suffered from severe attacks of bronchial asthma for at least a year, was found to have a greatly enlarged and painful tonsil. He also complained of pain, more or less constant, in the region of the trapezius muscle. Remembering the above case, as well as acting from general principles, I advised and effected removal of the diseased tonsil, where, deeply imbedded in the portion excised, was discovered a hard calculus, one centimetre in its greatest diameter, and very rough. The patient had several slight paroxysms of asthma during the healing of the pharyngeal wound, but since then—three months—has had no return. The pain in the shoulder has also disappeared. Referring again to the nerve-distribution, we find the tonsillar branch of the glosso-pharyngeal nerve directly connected with the pharyngeal plexus, through which, as stated, the pneumogastric may be influenced. The pain in the trapezius muscle was probably due to irritation of the spinal accessory nerve. This, by the way, is not infrequent in cases of chronic pharyngitis.

Disturbance of the pneumogastric, producing asthma, from causes located elsewhere than in the pharynx, may occur. Ovarian disease is often the source not only of apparent asthma, but of cardiac irregularity, while uterine complications are responsible for these symptoms—for here they are but symptoms —in many instances.

A case in point: A lady, æt. 46, was seen in consultation on account of rapid heart action and severe attacks of asthma. The physician in charge, after repeated and patient effort, had found no evidence of organic lesion except a well-defined local tenderness over the left ovary. Our joint examination confirmed this; the lungs were certainly free from disease, and, except that the area of cardiac dulness was somewhat enlarged, the heart seemed normal. Respiration, 24; pulse, 120; temperature, 99.6° F. The menstrual function was imperfect, but had not entirely ceased, though the patient was seemingly near the menopausis. In the absence of evidence of pulmonary or cardiac disease, the treatment was addressed to the ovarian irritation, for it was presumed that this, by reflex influence, produced both the dyspnœa and rapid heart action, the latter in turn causing the slight cardiac hypertrophy. This opinion was justified by the result. Counter-irritation was made over the ovarian region, and perfect rest enjoyed. No other treatment, except small doses of potassium bromide, was used. In a week the pulse had fallen to 100, and the attacks of dyspnœa were less, both in frequency and severity. After a month there was little, if any, reflex disturbance.

Schrutz (Allg. Zeit., 1876) and Weber believe that bronchial asthma is due to vaso-motor neurosis, while Bruner (Sovrem. Med., Warsaw, 1877), working in the same direction, declares that "asthma bronchiale is dependent upon an over-stimulation (exhaustion?) of the pneumogastric nerve." This author, in accordance with his belief, seeks to cure asthma by applying the galvanic current to the affected nerve, and with some success. Some cases there are, however, as those we have mentioned, in which there is a definite cause for the reflex stimulation. Hence we conclude that in all cases of asthma it is important to determine whether reflex influence is present, and, if so, to remove the remote cause of irritation, if possible. Where this is the prime factor it is not likely that any of the ordinary methods of treatment alone will suffice.

There are many instances, doubtless, where structural lesions of the bronchial mucous membrane follow impressions made upon the pneumogastric nerve. The vaso-motor supply may be thus so influenced that effusion and secretion result. Where such conditions have followed reflex disturbance, removal of the primary cause cannot always effect immediate relief. It is, however, a *sine quâ non*, and equilibrium of the circulation in the mucous membrane of the bronchial tubes is generally soon restored.

Progress of Medical Science.

Poisoning from the Use of Duboisin Drops.—*The Lancet*, for September 6th, reports eight cases occurring at the ophthalmic department of St. Thomas's Hospital, in which toxic symptoms were produced by the use of duboisin drops. The preparation employed was a four-grain solution of the sulphate of duboisin; two or three drops were used, and in some of the cases repeated a few times. The drug was given to assist, or as a substitute for, atropia. The prominent symptoms produced were dizziness, delirium, and inability to walk. In only a few cases was there dryness of the throat. The symptoms subsided in a few hours or a day. The cases seem to show that the drug is more powerful than atropia, and has a somewhat different constitutional effect.

Blood-poisoning and Antiseptic Surgery.—Mr. Wm. S. Savory, surgeon to St. Bartholomew's Hospital, discussed the above subject before the British Medical Association at its last meeting, taking ground against the Lister method. Blood-poisoning he defined to be the introduction into the blood of matter capable of producing putrefaction. He considered it well established that this septic matter is an organic particle, either animal or vegetable.

The system is in danger from it:

1. If it be in contact with the wound.

2. If the wound have not a healthy surface. The two great objects, therefore, in surgical operations, are to exclude all putrefying or decomposing fluids from the wound, and to keep the wound itself in the healthiest state possible, it being demonstrated that septic poison cannot pass through healthy granulations. If these two things are done, there can be no danger from blood-poisoning.

According to Mr. Savory, Mr. Lister's method aims at only one of these objects—that of the rigid exclusion and prevention of foul fluids. This aim, though theoretically good, practically is not always attained.

Besides this general objection, the following other points against Lister were made:

1. There are no statistics showing better results from Lister's than from other methods; in fact, none that are quite so good.

2. The fact that wounds often heal by first intention, or with great rapidity, when exposed to the air,

throws doubt upon the theory of the antiseptic method.

3. Mr. Savory's personal experience and observation had led him to believe that, as a rule, wounds heal more directly and quickly under simpler plans.

4. He denied that under Lister's plan operations can be performed which would not be attempted under ordinary methods.

5. Blood-poisoning does occur under the Lister plan, even in the best hands. Thus, instead of excluding septic fluids from the wound, it may imprison them there.

6. The dressing is very often irritating.

7. The fact that the dressing generally prevents the formation of pus, is of little weight. Healthy pus upon a granulating wound is a favorable sign.

8. The drainage tubes are very often a source of local and general irritation.

The principle of the Lister method is sound but narrow; and the practice has not yet shown as good results as those from other methods.

Resuscitation of Drowned Persons. A new method for the resuscitation of the drowned is described by Dr. Thos. E. Satterthwaite. It is claimed to be simpler than any of the already recognized methods; it needs but one operator; but little muscular force is called for, and the person is subjected to no rough usage. The directions are as follows: First, try and get something warm and dry to exchange for the wet clothing. Second, try and clear the air-passages of water by slightly elevating the body, while the mouth is wedged open and the tongue depressed. In half a minute or less the water will be driven out.

Third, turn the person over on the back, with the head still a little lower than the body, keeping the mouth wedged open with a bit of wood, and the tongue depressed with the finger of one hand. Then, sitting beside the person, make upward pressure with the other hand upon the bowels. Press slowly at first, then remove the hand that the air may enter the lungs. Repeat this three or four times a minute in the beginning, then increase to fifteen or eighteen times a minute.

If there is an assistant, the arms may be grasped and Sylvester's plan used in addition. Ammonia or smelling-salts may occasionally be applied to the nostrils, to stimulate the nerve-centres.—*Public Health*, July 5, 1879.

A Case of Unilateral Paralysis Agitans. Dr. Dyce Duckworth, assistant physician to St. Bartholomew's Hospital, reports the following interesting case of unilateral paralysis: The patient was a herdsman, aged sixty, well-nourished, and with no history of syphilis or intemperance. Two years previously, having been exposed to wet, he was taken with pains in the right arm; tremblings gradually supervened in the right hand; these extended up the arm, and at length obliged him to leave his work.

When presented for treatment, these tremblings had grown still worse; they diminished on movement of the arm, but began again when anything was grasped. They ceased during sleep. The flexor muscles were somewhat contracted, the power of the arm weakened; sensation was unimpared. There was much restlessness at night, and the patient was awakened two or three times with paroxysms of pain and trembling in the arm. There was no tremor in the head, and the speech was unaffected.

The patient was placed on the bromide of camphor, it being gradually increased from one to fifteen grains a day. Subsequently, the galvanic current, twenty-six cells, was given daily. He gradually improved, so that he was able to pick up things and even write. The case then remained stationary, and was finally discharged.

The case illustrates a rather unusual form of the onset of the disease; it shows also that the bromide of camphor, recommended by Charcot, is of considerable value as a palliative.—*The Lancet*, Sept. 6, 1879.

The Open Method versus Lister. To illustrate the success which may attend the treatment of surgical cases on ordinary surgical principles, the following statistics were given by Mr. Savory in his attack on the Lister dressing. At St. Bartholomew's Hospital, in 1876, the number of deaths from pyæmia, after operations, was 2, or .49 per cent. In 1877 the deaths from the same cause were 4, or .95 per cent. In 1878 the deaths were 4, or .96 per cent. During the three years there was a total of 18 deaths from blood-poisoning after 1,235 operations, this being at the rate of 1.44 per cent.

Paracentesis Pericardii a Justifiable Operation.—The above operation, which after trial has been pretty generally abandoned in New York hospitals, is urgently recommended by Dr. John B. Roberts, of Philadelphia. The operation was proposed two hundred years ago, but only seven recorded cases of the operation could be found in America. Dr. Roberts, however, collected elsewhere in all forty-nine cases, of which twenty-three recovered.

The cases requiring paracentesis especially are those where a sudden effusion occurs in acute articular rheumatism. In Bright's disease, pleuro-pneumonia, and purulent pericarditis, not so good results can be expected. The operation should be done with an aspirator; the best point for the needle or trocar being the fifth intercostal space, one and a half inches from the middle line (not the left edge) of the sternum. If the fluid reaccumulates the tapping should be repeated, and if it becomes purulent a drainage-tube may be left in the wound.—*Phila. Med. Times.*

Observations in One Hundred Cases of Carcinoma.—Some very interesting facts in regard to carcinoma, as it occurs in this country, have been collected by Dr. T. E. Satterthwaite and Dr. W. H. Porter, and presented in the form of an elaborate monograph in the *New York Medical Journal* for September. The histories of the cases have been followed up with great care, ninety-five per cent. of the cancers having been examined microscopically. There is no previous set of cases that has been studied so thoroughly and minutely.

The authors classify the carcinomata into five groups, viz.: 1. Epithelioma; 2. Scirrhus; 3. Encephaloid; 4. Colloid; 5. Cauliflower growths. This division and the descriptions given of each are much like those ordinarily accepted. Under the head of epithelioma is included rodent ulcer, and the differential diagnosis between it and lupus vulgaris is given. Rodent ulcer is considered a growing inward of the rete, which does not, however, extend as rapidly or as deeply as the ordinary epithelioma, and rarely forms the epithelial cylinders characteristic of that affection. Rodent ulcer is in fact only a low or mild form of epithelioma. The cases of each form of cancer are analyzed, and presented in tabular form, showing the age, sex, condition, occupation, date of beginning of growth, its locality, cause, the family history, enlargement of lymphatic glands, treatment

previous to operation, date of operation, condition of health previous to cancer, whether pain was relieved by the operation, whether the growth was more rapid when it recurred, date of recurrence, interval between period when first noticed and first removed, number of recurrences, number of operations, extent of operations, interval between first removal and death, duration of non-fatal cases, length of the course of the disease, date and cause of death, locality of recurrent growth, complicating diseases, variety of the disease, name of the examiner.

Under nearly all of these heads some more or less positive conclusions were deduced; and the results are compared with those of Paget, Winiwarter, and other observers. Some of the more important ones may be noted.

In regard to scirrhous cancer the disease was found to commence between the ages of forty-two and forty-six, the least age being twenty-eight, the most advanced seventy-six. External scirrhus occurs more frequently in females; internal, in males. 80 per cent. of the cases occurred in the breast, and next in frequency were the stomach, the liver, and the uterus. In 36 per cent. some form of traumatism, such as blows, abscesses, or ulcers, was assigned as the cause, this being a much larger per cent. than is usually given. About 30 per cent. had a family history of carcinoma. Such treatment as has been received previous to operation had resulted in no good; this treatment consisting of arsenic, electrolysis, etc.

The previous health had been good in 82 per cent., and it was inferred that scirrhous cancer was a disease of established health. The operation for removal caused relief from pain in 63.41 per cent. of the cases, a showing favorable to operative procedure.

On the whole, the rate of growth after removal and upon recurrence appeared to be more rapid than before, though this conclusion could not be made positively, and is at variance with that of Paget.

The average period between inception of the disease and operation was seventeen months, the average interval between first removal and death, twenty months. This does not include the non-fatal cases, which would bring up the average to over twenty-five months. The person who had lived longest was operated on four times, and the fact is emphasized that where the greatest number of operations have been performed, there is the greatest duration of life.

In regard to the reliability of the microscope in making diagnosis of these growths, it is stated that in not one case, where a good specimen was furnished, was a mistake made in assigning them to their proper class.

It is further stated that scirrhus never undergoes any change when it returns to the same site.

No positive relation of the disease to phthisis or syphilis could be made out.

Scirrhous cancer embraced forty-one of the one hundred cases. Epithelioma came next in frequency.

This occurred at an average age of fifty-four years; three-quarters of the cases being males. One-third of the cases were located on the lip. In 32 per cent. smoking a pipe was assigned as a cause, and in over half the cases there was some kind of traumatic cause given. In 13 per cent. there was a family history of cancer.

The treatment previous to operation had, in most cases, been the application of a saturated solution of terchloride of antimony, and this had often done much good. In three-fourths of the cases the general health had been good. The rate of growth after removal was, in 44 per cent., more rapid. In 70 per cent. of the cases it had not returned.

The average duration of all the cases was over forty-four months, some of the cases being still alive.

An important deduction was made on the microscopical examinations. In no case was a sarcoma seen to undergo conversion into a carcinoma, or be in any way associated with it. The converse was also true.

Some important clinical facts are also given in regard to the variety and site of carcinoma. Given cancer of the breast, and it will almost certainly be scirrhus; given cancer of the eyelid, and it will almost certainly be rodent ulcer; given cancer of the liver, and it will almost certainly be encephaloid.

The Hypophosphites in Phthisis.—The question of the value of the hypophosphites in phthisis has been revived, with varying testimony in regard to them. A writer in a California journal praises them, to the disparagement of cod-liver oil. Dr. Charteris, in *The Lancet*, some time ago, related excellent results in his experience from them. The records of a more than usually careful study of their influence have recently been published by Dr. J. G. Sinclair Coghill, of the Ventnor Hospital for Consumption, England.

The hypophosphites were prescribed in 100 cases chosen indiscriminately, 63 being cases of pneumonia, and 37 of tubercular phthisis. Eight grains each of the hypophosphite of soda and lime in an ounce of the infusion of cascarilla, were administered twice a day after meals. During this treatment the various symptoms were carefully noted.

In regard to colliquative sweating, no good was done by the hypophosphites, and the same may be said of fever cough. The appetite was improved in 52, and the weight increased in 62 cases. The physical signs improved in 43 patients.

It was considered proved by a comparison of the cases that the hypophosphites have no claim to be considered a specific remedy for phthisis. They have, however, valuable tonic properties, improving the appetite, increasing the weight, and helping digestion. They are heat-producers, and should therefore be used only in the early or arrested stages of the disease.—*Lancet*, Sept. 6, 1879.

Ovariotomy and Cold Affusion in the Woman's Hospital.—During the past ten months, from September, 1878, to July, 1879, Dr. T. G. Thomas has performed ovariotomy twenty-two times in this institution. Out of the twenty-two cases, cold affusion, by Kibbe's method, has been employed in nine, with the result of twenty-one recoveries, and one death. The death occurred in a patient sent to the hospital in a most forlorn condition, three weeks after delivery. The operation was resorted to as her only chance, as she was rapidly sinking, and she died from exhaustion. In this case cold affusion was not used. —*New York Medical Journal*, Sept., 1879.

Preparatory Schools of Medicine.—A preparatory school of medicine and pharmacy has been established at Amiens, and will be opened in February, 1880. It offers a good example to England and America, both which countries are now discussing the deficiencies of preliminary education. There is already in this country a course of study at Yale College very well adapted to those intending to study medicine. It has not, however, the surroundings which would make it popular to medical students.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 11, 1879.

THE MECHANICAL TREATMENT OF POTT'S DISEASE.

II.

To the plaster-of-Paris jacket, as used by Dr. Sayre, there belongs another factor in treatment - namely, suspension. Suspension in Pott's disease is not entirely devoid of danger; yet it has been practised many hundreds of times without any apparent injury. Its chief value, doubtless, consists in the fact that it enables the surgeon to apply the jacket properly. It is claimed that by its use the pathological curve is diminished. In every deviation of the spinal column, be it antero-posterior or lateral, secondary curves are always formed, which are called compensatory. These secondary curves form above and below the point of disease, and tend to make that portion of the spinal column appear more deformed than it really is. It is possible, by extending the spine by suspension, to obliterate these secondary curves, and thus *apparently* diminish the pathological one, but it is doubtful if any real effect is produced upon it. The fibrous tissue ligaments and muscles about the point of disease hold the bones fixed, and prevent any sudden change of their relation. It has been demonstrated that by suspension the perfectly healthy spine can be lengthened. How much of the elongation of a diseased one may be thus explained?

In disease occurring in the cervical region the jacket is useless, except as a foundation for the bar that carries the chin-piece or jury-mast. Many think that, for disease in this region, the steel support, with an apron in front, is far superior to the jacket. The advantages of the plaster-of-Paris jacket are the ease with which the materials for its application can be obtained, the little experience required in comparison with that necessary for the fitting of a steel support, and its cheapness. It requires considerable experience (notwithstanding the statements to the contrary), to apply one properly, even by those who have used plaster-of-Paris bandages for other purposes; but, to one not accustomed to prepare and apply them, the difficulties are not few, and he will find out, to his sorrow, that excoriations will occur and the patient will complain. Dexterity in this, as in any other surgical application, is indispensable. We have seen cases in which the jacket has been put on, and in which it did not the slightest good;—not from any deficiency in knowledge, but from a lack of experience. The great claim for this material for splints is its cheapness, and if the objections can be overcome it will certainly prove a useful addition to our means of treating Pott's disease—chiefly in cases in which the disease occurs below the middle dorsal region. The steel support is no doubt a difficult apparatus to adjust. It requires not only time and mechanical skill, but considerable experience, and we suspect that this is one reason why so many do not think well of it. The idea that one can send to a surgical instrument-maker for a brace that will be of any use without any further adjusting, is based on a misunderstanding of the abilities of instrument-makers. This may account for the very unsatisfactory results that have followed the use of braces by the general practitioner, and one reason why the plaster-of-Paris jacket has become so popular—we had almost said fashionable. There is no question but that an apparatus that can be removed and permit of the simple rules of cleanliness being carried out, has so much in its favor. We do not wish to be misunderstood in this connection. We have no pet brace to advocate, nor do we wish to decry one method of treating Pott's disease or unduly praise another. We know that in skilful hands excellent results have followed the use of the plaster jacket; equally good results have been obtained by the use of felt splints; and years before the use of the plaster jacket was proposed, as good a result as we have ever seen by any method of treatment was obtained by a layman using a splint of cloth and shellac.

An impression has become somewhat current that, because a brace or a jacket has been applied to a case of spinal disease, the patient should be able to go about and engage in his plays or work as though he had no trouble, and that the treatment of these cases is a mere question of support. Nothing can be more harmful to one suffering from Pott's disease. The rule is, the more quiet, the better will be his chances of recovery. The fact is, that it is impossible to render a spine absolutely immovable when a patient is going about, no matter what kind of a brace or bandage is applied; and we must insist that as much rest shall be taken by our patients as is compatible with health, at least in the more acute cases.

It is a good rule to confine our patient to his couch for a week or more, and then gradually to permit of exercise in order that he may become accustomed to

his support. It should always be remembered that out-of-door exercise is secondary to absolute rest of the parts.

There has been much said and written of late on the necessity for extension in Pott's disease. It is a question whether, by any known apparatus, the spinal column can be held in a state of permanent extension; that is, that the bodies of the vertebræ can be pulled apart. What can be done, and is done by all forms of apparatus constructed on correct principles, is to throw the body back, and thus transfer the weight, as much as possible, from the bodies to the lateral masses. Those afflicted with spinal disease try in this way to relieve the pain, and this position is one of the most prominent symptoms of the affection. It is astonishing how little support, in some cases, is necessary to afford relief, especially in those in which the lower dorsal or lumbar vertebræ are involved. Simply fixing the spine in an erect position appears to be all that is required for some, while for other cases it seems almost impossible to give enough support.

In the treatment of spinal curvature, as in all other surgical diseases, that mode of dressing with which the surgeon is most familiar, and which has yielded for him good results, is generally the one he advocates. In discussing this subject it should not be forgotten that one may obtain good results from the use of a brace with which he is familiar, while another is equally successful with one of another pattern or construction. One may have more mechanical ingenuity than another, and of course can apply a brace or jacket better. In forming a judgment in this matter, it should be taken into consideration that there is no brace, jacket, or bandage that does not have some drawback. They all will, at times, chafe, and be uncomfortable; sometimes one form of support cannot be worn, while another can, and there are some cases in which no apparatus can be applied. There is no one spinal support that is applicable to all cases. We continually hear the claim made for this or that brace that it can be applied by any one. While deeply sympathizing with this desire, we cannot shut our eyes to the fact that experience in this, as in other departments, will always be indispensable to obtaining the best results. We do not believe that the treatment of Pott's disease will ever be so simplified that good results will follow any method of management in unskilled hands; he who has managed successfully the largest number of cases will be rewarded with the uniform best results. Of course there are very many cases that cannot be sent to a specialist, and to one who is forced to treat such a case any support that will meet the indications will prove of use, whether it be made of steel, plaster-of-Paris, paper, felt, or any other material. If the surgeon fully understands the principles upon which the treatment should be conducted, and has, or can avail himself of mechanical ingenuity, he will either devise a new apparatus or modify some old one, so that he will adapt the surgical appliance to the special indications in an individual case, and will be rewarded with a commendable degree of success. If he does not possess these qualifications, his patient will suffer under his management, regardless of the plan of treatment adopted.

THE NEW HALL FOR THE ACADEMY OF MEDICINE.

The dedication of the new hall of the New York Academy of Medicine was a notable event in the medical history of this city. By the liberality of Dr. Abram Du Bois, a fellow of the Academy, this elegant, convenient, and commodious building is now placed at the disposal of the profession. Together with the Academy building, of which it is an extension, it helps to realize the oft-expressed desire of many Fellows, of a general meeting-place of which the profession shall be proud; while the library, now numbering many hundreds of rare volumes, has a fitting habitation. In congratulating the profession of this city upon the full fruition of the plans which have been fostered for so many years, we must not forget to give the credit which belongs to the extra exertions of several individual members. We do not run the risk of being invidious in mentioning the untiring zeal of a former President, Dr. S. S. Purple, in the interests of the library, and of the extensive and valuable presentations which he has made to its shelves. Many others have done likewise in proportion to their means, and their liberalities will be duly remembered. These examples are worthy of imitation for the good of the profession at large, in making available under one roof the smaller libraries of individual members. In view of the library facilities which are now offered by the Academy, it is unnecessary to urge this method of donation. In regard to this point we may say, in passing, that we are pleased to learn that the friends of some of the deceased members are already calculating the propriety of making such gifts, and of thus building up monuments to their memory. New York is very much in need of a central medical library, and we know of no better place for it than the building of the Academy. It is true that the New York Hospital Library is a large and well selected one, and it is also true that the profession is free to consult its contents; but, belonging to a close corporation, and subject to its regulation, there is no guarantee how long the present arrangement may last. Besides, the profession is placed more or less under a feeling of obligation for the benefits enjoyed, which feelings will not be experienced in any home of its own, and where a voice can be had in its general government.

The opening exercises of the new hall were eminently appropriate. The speakers were carefully selected, and their remarks were well timed and duly appreciated by the large audience present. It is impossible

to resist the conviction that the success of the occasion was due to the indefatigable zeal of the present president, Dr. Fordyce Barker, whose donations of the magnificent bust of Spencer Wells, and of the handsome desk and elegant presidential chair, will be gratefully remembered by the society. His endeavors to prove that the Academy should be not only a scientific, but a social home for the profession of this city, were practically tested by the magnificent banquet which rounded out the exercises of the evening.

It can now be safely said that the Academy has truly waked up to the necessities of the hour, and its old friends and new will stand ready to uphold the hands of its worthy president and wish it God-speed.

THE GRADED COURSE IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

THE Bellevue Hospital Medical College has signified its intention, after the regular session of 1879–80, of modifying its plan of instruction so as to apportion to each one of three sessions certain divisions of the study of medicine—in other words, to have a graded course of three years. In addition to this change, preliminary examinations, or their equivalent, will be required of all students who expect to become graduates after the close of the session of 1879–80. It is gratifying to say that this is a long step in advance, and that Bellevue, in virtually taking the initiative in this city, deserves the best wishes of not only its particular friends, but of all who favor the right sort of progress in medical education. It is unnecessary to elaborate the details of the change, as it is sufficient that they are made to accord with the general principles of preliminary education, a graded course, and virtual increase of the time of study. Although every contingency as to character of study, time for yearly and final examinations, the kind of preliminary examination required, is apparently provided for, we are glad to know that the faculty is willing to make such changes or modifications in future as experience may render necessary. It is impossible to foresee the effect of such a change upon the size of its classes, but in the possibility of the latter falling off, there is a certainty in improvement of the qualifications of its graduates, and in the increase in the reputation of the school.

A CASE OF DOUBLE UTERUS AND SUPERFŒTATION.—Dr. Sotschawar, of Moscow, reports the case of a woman, aged 26, to whom he was called on account of hemorrhage. Upon examination he found two vaginæ, each leading to a distinct uterus. The hemorrhage proceeded from both uteri, and was very considerable. After some manipulation an embryo of about one month was extracted from the left uterus, and three days later a fœtus of three months from the right uterus. The observer asserts that this is the third case of the kind known to science. It may be remembered that Dr. Fordyce Barker, of this city, has had one such case in his experience.

Reviews and Notices of Books.

MATERIA MEDICA AND THERAPEUTICS: VEGETABLE KINGDOM. By CHARLES D F. PHILLIPS, M.D., F.R.C.S.E.: Lecturer on Materia Medica, Westminster Hospital, London. Edited and adapted to the U. S. Pharmacopœia. By HENRY G PIFFARD, A.M., M.D., Professor of Dermatology, University of the City of New York, etc. New York: William Wood & Company, 27 Great Jones Street. 1879.

THIS is one of the volumes comprising Wood's Library of Standard Medical Authors. It consists of a condensation of the original work of the author, such as brings it within the range of the present series, and the editor has also made it conform to the U. S. Pharmacopœia. Besides, it is to be noticed that the editor has given a brief description of a few indigenous drugs which are in rather general use, and also a few of foreign origin, such as jaborandi, etc. These are acceptable additions, and are designated by being embraced in brackets. The regular order consists in a presentation of the active ingredients of each article, its physiological and its therapeutical action, and its preparations and dose. With one or two exceptions, the sections on preparations and dose have been rewritten, so as to substitute officinal preparations (U. S.) for those of the British Pharmacopœia; and the doses are expressed in both apothecaries' weights and measures, and in the metric system. The work of the editor forms an important part of the volume, and brings it up to the latest knowledge on the therapeutical properties of the article considered.

MEMORANDA ON POISONS. By THOMAS HAWKES TANNER, M.D., F.L.S. Fourth American from the last London Enlarged and Revised Edition. Philadelphia: Lindsay & Blakiston. 1879.

THE merits of this small book are too well recognized to require special comment. It is a convenient and comprehensive manual.

POCKET THERAPEUTICS AND DOSE-BOOK. By MORSE STEWART, JR., B.A., M.D. Second Edition. Revised and enlarged. Detroit, Mich.: Geo. D. Stewart. 1878.

THIS is a sort of an emergency book. We have heard of physicians who carry it constantly in their pocket with advantage. From this fact, and the not less important one that we have examined it and have found that it contains a good deal of practical knowledge, we commend it to the favorable consideration of medical men. It can be carried in a small pocket, and will be found to be a useful remembrancer.

THIRTY-SIXTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y. For the year 1878. Albany: Charles Van Benthuysen & Sons. 1879.

THIS report was presented to the Senate of the State of New York, Jan. 15, 1879. Considerable space is devoted to a description of the method of heating and ventilating of the institution, as given by the superintendent, Dr. Gray, for transmission to the British government. This is followed by the treasurer's report, and then we reach the superintendent's report, which consists of a general review of the operations of the asylum during the past year. The experience of the superintendent has been, that it is just and wise to have the chronic insane taken care of in their own families, when it can be accomplished; yet he does not advise the adoption of the system of providing

for this class in a general way in private houses. To this is added the pathological report, embracing the work done under the direction of Theodore Diecke, special pathologist. Considerable space is given to a description of apparatus with which every microscopist is familiar, and which could have been more profitably occupied by a description of actual post-mortem and microscopical appearances found in the brain in the various forms of insanity. The pigmentary degeneration resulting from the absorption and deposition of materials in the protoplasm of the ganglion cells, furnished by the decomposition of emigrated red blood-corpuscles, is believed to possess more pathological significance than has hitherto been admitted. If what is known as insanity is characterized by pathological lesions, there is no better place to make the necessary examination to determine what those lesions are, than in large insane asylums. The State Lunatic Asylum, according to the report, is well provided with apparatus and specimens, and the profession of the State has a right to expect more of scientific observations than it has as yet received.

MANUALS OF HEALTH: ON HEALTH AND OCCUPATION. By B. W. RICHARDSON, M.D., F.R.S., M.A., LL.D., F.S.A. London: 77 Great Queen Street, 4 Royal Exchange. New York: Pott, Young & Co. 1879.

THIS is an interesting little manual, divided into four parts. In the first is described the workers in community; in the second are indicated some of the injuries to health indirectly connected with the occupations of the different classes of workers; in the third the direct injuries to health and life are considered; and in the last part the author endeavors to point out some practical methods by which the lives of the different classes of workers may be rendered healthier and longer. It is a very readable and suggestive monograph.

VADE-MECUM OF EQUINE ANATOMY. For the Use of Advanced Students and Veterinary Surgeons. By A. LIAUTARD, M.D., V.S., Professor of Comparative Anatomy in the American Veterinary College. New York: Published at the American Veterinary College, 144 W. 54th Street. 1879.

THIS little book, containing nearly two hundred pages, is, in conformity to prescribed custom, designed to "fill a vacancy long existing." It is for the use of advanced students and veterinary surgeons, and consists of an abridgment of Chaveau's and Fleming's larger works, arranged to correspond to the professor's mode of teaching.

LABORATORY TEACHING; OR, PROGRESSIVE EXERCISES IN PRACTICAL CHEMISTRY. By CHARLES LOUDON BLOXAM, Professor of Chemistry in King's College, London. Fourth Edition, with 89 illustrations. Philadelphia: Lindsay & Blakiston. 1879.

THIS work evidently is intended for those who are beginning the study of practical chemistry in the laboratory. It has passed through three editions, and the student is now favored with the fourth, which contains some alterations; but the most important is the introduction of the formulæ representing the various chemical compounds described in the notes to the tables. The book will be found a valuable guide to the student in chemistry.

AMERICAN HEALTH PRIMERS: THE SUMMER AND ITS DISEASES. By JAMES C. WILSON, M.D. Phila.: Lindsay & Blakiston. 1879. Pp. 160.

THIS book treats of the summer, sunstroke, and heat fever, which latter is distinguished from other transient febrile states; summer diarrhœa and dysentery, cholera infantum, summer and autumnal fevers, summer colds and hay-asthma, the skin in summer and its diseases. The author writes as though he liked his subject, and has made the book a very interesting one.

L'ANNÉE MEDICALE. Résumé des progrès réalisés dans les sciences médicales. Sous la direction du DR. BOURNEVILLE, du *Progrès Médicale*. Paris: E. Plon et Cie., No. 10 Rue Garangière. Pp. 417.

THIS volume is a very clear and satisfactory abstract of new ideas and discoveries brought forward during 1878. Controversies are sifted, and their final conclusions tersely stated; verbose descriptions by enthusiastic authors are condensed, and their essential points made more conspicuous. An effort has been made to sum up whatever is new and valuable in all that has been noticed in journals, monographs, reports of societies, etc., during the year. The descriptions are full enough to give a clear idea to the ordinary reader, and a good index of authors tells those specially interested where they can look up more carefully what particularly attracts their attention. The plan of the book deserves commendation in these respects. It is impossible to adequately review in a small space a work which is itself an epitome. We shall merely endeavor to give a general idea of the class of articles, calling special attention to only a few.

Under the head of anatomy are mentioned new investigations with reference to the origins and decussations of cranial nerves (M. Math. Duval), and new ideas of nerve-terminations developed by staining with .01 solution of chloride of gold (M. Ranvier). M. G. Hayem's anatomy of normal blood, and his theories in the matter of hæmatoblasts, are quite fully noticed. Careful measurements show the following: Normally, the sum of the calibres of bronchial tubes equals that of the original tube from which they arise; hence the respiratory passages constitute a cylinder, and not a cone (M. Marc. Lée). The right hemisphere the larger in a considerable majority of 300 brains (M. Le Bon). In 200 cadavers and 120 living patients the average capacity of the male urinary bladder exceeded that of the female organ by .07 (Hoffman).

The chapter on physiology is quite full. Specially striking are: Jacobson's branch of the glosso-pharyngeal, the motor nerve of the parotid gland (Heidenhain); the secretion of this gland, normally acid and not alkaline, as hitherto supposed (M. Astaschewsky). The acid principle of the gastric juice, the chlorhydrate of a feeble base (M. Richet). The retardation of the pulse in aortic regurgitation less than normal (M. F. Franck).

M. A. Kriedmann believes that he has demonstrated the depressor nerve of the circulation in the human being. The function of the semicircular canals is to give a notion of the three dimensions of space (M. Cyon). The telephone, microphone, and some other matters are described and discussed.

Under the head of medicine are pointed out new researches with reference to the germ-theory of fevers (Pasteur); tracheotomy with the thermo-cautery (Berger, Desprès, &c.); pneumonia an herpes of the lung dependent upon a primary neuritis of the pneumogastric (M. Fermet); diseases of the heart, liver, kidneys, and nervous system.

General Surgery is amply reviewed, and special chapters are devoted to the description of advances made in the study of diseases of the eye, ear, and genito-urinary tract.

In Obstetrics, utero-ovarian amputation, cephalotripsy, gastro-elytrotomy, and the question of the fœtus being affected by medicines taken by the mother, receive special attention.

The section on therapeutics contains a long note on mineral waters, and observations upon the actions of *dracæna rotundifolia*, *dubroisia myoporoides*, grindelia robusta, phytolacca decandria, &c.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Volume eighth. Containing the Report of the Proceedings from September, 1877, to July, 1878. Edited by J. HENRY C. SIMES, M.D., Lecturer on Histology in the University of Pennsylvania; Recorder of the Society. Philadelphia: Printed for the Society by J. B. Lippincott & Co. 1879. Pp. 225.

We gladly welcome another volume of the Transactions of the Pathological Society of Philadelphia, being the eighth report of its work. Its arrangement is the same as that of former issues, and reflects great credit upon the individual members of the Society, as well as upon the editor. The volume contains the reports on sixty-three specimens, besides a valuable paper on "The Causal Lesion of Puerperal Eclampsia," by James Tyson, M.D., consisting of over fifty pages that will well repay a careful perusal.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Oct. 2, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

DEDICATION OF THE NEW LIBRARY HALL.

THE Fellows of the New York Academy of Medicine and the invited guests met in the New Library Hall, and the meeting was called to order at 8.15 P.M. by the President.

After the reading of the report of the Committee on Admissions, by DR. E. H. JANES, Chairman, DR. JOSEPH WIENER, Chairman of the *Committee on Subscriptions*, read his report, in which it was stated that sufficient money had been collected to defray all the expense of the new building and the improvements. He then read the names of all the subscribers.

DR. S. S. PURPLE, Chairman of the *Building Committee*, then read the report of that committee, in which it appeared that the receipts had been $12,573, and the disbursements $12,556. These figures included the $3,000 placed to the credit of the Library Fund by reason of an additional donation of $3,000 to the Academy by Dr. Abram Du Bois. The entire cost of the improvements had been provided for, and no debt had been created.

ADDRESS BY THE PRESIDENT.

The President then delivered the dedicatory address, in which he first referred to the reports just read, as containing a significance and depth of meaning which to thoughtful men must be more suggestive to the imagination, more comprehensive in its influence upon the younger members of our profession, who were hereafter to carry out what was only begun, than any fascination of rhetorical graces or oratory. There was in it an eloquence of results more moving and abiding than could be expressed by words. He then paid a special compliment to the Chairman of the Subscription Committee, also to the Chairman of the Building Committee, who began his functions by creating the necessity for a Library Hall by his magnificent donation of what, in some respects, constitutes a unique library, and also expressed the pleasure and the appreciation of the Academy regarding the contractor and the builder.

With the dedication of the new Library Hall, it was hoped, there began a new era in the history of the New York Academy of Medicine, and that the rooms would give a central place where the profession would work for the advancement of science and the cultivation of the social graces which bind us in the friendly ties of a common brotherhood of a useful and honorable profession.

The founders of the Academy "builded better than they knew." There was good reason to anticipate that the young men in the profession, who were soon to fill the places and carry forward the mission of the medical profession in this city, would in mental activity, and useful and creditable work, far surpass their predecessors.

"Young men, we who soon are to give place to you, salute you."

The President then referred in glowing terms to what could be done by capacity for creating circumstances, by power of compelling everybody to work for the ends set out to be obtained, by breadth and scope of influence, as illustrated by him who began as an assistant surgeon in the U. S. Army, and through whose labor one of the most remarkable medical libraries in existence had been founded. Reference was also made to the great work which the same gentleman had done in connection with the organization and efficiency of a National Board of Health, through the agency of which we might confidently hope that in the future we might be spared from those terrible epidemics which bring distress and sorrow to some portions of our country. It was not for the sake of personal compliment that such reference was made, but for the purpose of enforcing the moral that if the genius and ability of one Billings could accomplish so much, what ought not be expected for the future as the result of the active exercise of the combined talent, labor, and learning of such an organization as the New York Academy of Medicine.

The significant question was asked by the President, "May we not anticipate that we shall yet obtain the means of securing a home worthy of the city of New York, the great commercial—and, without wishing to dishonor Boston in the least, who had her worthy representative present—the great intellectual metropolis of the continent?" But to realize the hope we must demonstrate our worthiness to hold such a trust—one that would be as imposing as the noble edifices of the Royal College of Physicians and of the Royal College of Surgeons of London. Should any one, however, see fit to impose the trust upon them now, they would try and "bear the shock with manly courage."

MARBLE BUST OF MR. T. SPENCER WELLS.

The President then presented to the Academy, in the following appropriate language, a beautiful marble bust of Mr. T. Spencer Wells:

"A few months since a monument was erected in the town of Danville, Kentucky, in honor of McDowell, the surgeon who first successfully performed an operation which now must be conceded to be the greatest surgical achievement of the present century. It was a tribute due from the profession to one of its

great men. The operation is now accepted as one of the valuable additions to our means of saving many loved lives. It has been successfully performed in this country in many hundreds of cases by Atlee, Kimball, Dunlap, Peaslee, and others. Many of us can remember when it was denounced by the most prominent men in the profession, both at home and abroad, as an operation so hopeless and desperate as to seem unjustifiable, even in the face of surely impending death from ovarian disease. Yet, within a recent period, one of our number—need I mention the name of T. Gaillard Thomas—has performed the operation in twenty-two cases, with but a single death.

"The great work of our lamented Peaslee was dedicated to the memory of Ephraim McDowell, the Father of Ovariotomy, and to Thomas Spencer Wells, the greatest of ovariotomists. The latter has performed the operation 958 times, and, according to the calculations of Lord Selborne, late Lord High Chancellor of England, made in 1875, and based on five hundred operations, he must now have added to the life of woman in Great Britain but little short of 20,000 years of health, of usefulness, and happiness. His previous valuable contributions to general surgery have been comparatively forgotten in the great fame he has acquired as an ovariotomist. How it has happened, that one whose name is one of the chief glories of England as a benefactor to humanity, has not ere this received the highest honor which government ever bestows upon medical men, would be a mystery to us on this side of the Atlantic, did we not recall the fact that it has long been the custom of courts and of governments to confer the highest honors on those who are most successful in destroying life on a large scale, and not on those who save life. Feeling strongly, as I do, that it is a wise and good thing for the profession to cherish a warm admiration for those of our number who make positive contributions to our literature and to science, and who really accomplish great results, I beg leave to present to the Academy a marble bust of Mr. Spencer Wells. It was on exhibition at the last exposition of the Royal Academy of London, and received high encomiums from the critics of the artistic journals. In the number of the *British Medical Journal*, May 3, 1879, is an editorial on the Royal Academy, in which, speaking of this bust of Mr. Spencer Wells, it says: 'This will certainly strike any one who examines it as a work remarkable for its artistic feeling and great realistic power. It is in the strongest sense characteristic, and indeed, is so powerful and remarkable a likeness as at once to challenge attention by its individuality and impressive resemblance. If any fault is to be found, it is perhaps that it is wanting in the look of genial amiability which distinguishes the great surgeon whom it reproduces, and modifies the otherwise stern, forcible features, which are here depicted with great power.' While making no pretension as an art critic, I may be permitted to say it gives the expression which he wears when making a diagnosis. It must greatly add to the interest with which it is examined, when I add that it is the work of one of our profession, the artist being the eminent ophthalmologist, Richard Liebreich, who, in addition to the laurels which he has earned in ophthalmology, in science, and in medical literature, must now add those of success in sculpture, which hardly any amateur has ever attained and most professionals might envy."

In connection with this, Dr. Barker loaned for the occasion a photograph of the beautiful home of Mr. Wells, a few miles from London, with an inscription by one of our most popular authors.

He also presented a beautiful presidential chair, with a reading-desk and table for the secretary.

In closing, he expressed the hope that the New York Academy would ever regard the occasion as a memorable era in its history, and would, from that evening, take a new departure which would be followed by a glorious career of usefulness and influence that would, in all future time, remain a monumental tribute to the high purpose, the wise forethought, and the noble liberality of Abram Du Bois, whose life-work had been specially devoted to the elevation of the profession, and improvement in medical education.

REMARKS BY DR. HENRY W. ACLAND.

The President then introduced Dr. Henry W. Acland, Regius Professor of Medicine, University of Oxford, who acknowledged heartily and sincerely the courtesy which never more kindly had been extended to him than on the present occasion, by requesting a stranger to begin the regular business of the evening immediately following the President's address. One objection he had to making remarks at that period in the meeting was, that it was not quite just to the senior member of the University of Oxford, then present, Dr. Gross, the great American surgeon, that he should not have been called upon first. However, with the President, he agreed that the two reports presented at the beginning of the exercises were full of interest; further, the President's address itself was full of matter for reflection, and he ventured the thought that the occasion was one of more than usual importance. For, hazarding the last remark, he made an excuse, believing it to be a just one, consisting in a picture of contrast between what he saw in this country, especially in the way of hospitals on a visit made twenty years ago, and what he had been permitted to see during his present sojourn among the American people. To reflect upon what this country presented twenty years ago, to read of the terrible struggle through which it had passed since that date, and to see how quickly the marks of destruction had been effaced, and ruined cities had been restored, was a matter of astonishment as well as of serious reflection and criticism. He then made special reference to what had been done in this country for the sick poor, and complimented the wealthy man, whoever he might be, who, out of his abundance, provided means for the amelioration of the suffering poor of the world.

With reference to the library, although having nothing of special interest to offer, he drew attention to what was the result of his observations during the last few weeks. First, must it not move us with some enthusiasm in looking forward to what the next generation will do with all the means at their command which this generation had provided for them.

Second, the great and vast work carried on by the medical profession in the United States was overshadowed by one difficulty, more or less present in almost all countries—the difficulty of producing an adequate combination among the numerous institutions. He, however, was not indisposed to think that in the future it will be difficult to contaminate the honorable members of the profession by those who are not entitled to publicly use the name physician. Medicine was a subject, not for statesmen nor for politics, but was a subject for humanity, and the progress of medicine concerned the entire world wherever sickness and suffering existed. With the existence of politics in his country they had nothing

to do, and they were making the attempt, and he thought there was no doubt of their success, to record all those who had a good medical education, so that with those they could have to do, and nothing at all with all the others.

Dr. Acland then passed to the subject of a National Board of Health, and was not prepared to understand how there should be any difficulty regarding the diffusion of knowledge from a central authority. No such difficulty was encountered upon the other side of the water, and to them it seemed incredible that such a difficulty should exist. Assuredly it was progress and benefit for all, and the hindrance of disease was one of the great duties of the medical profession. He then referred to our most valuable medical literature, and said that this country should have professorships created expressly upon the vast subject of comparative national health.

Finally, in the name of his countrymen, he thanked Dr. Barker for the honor he had done to his friend, Mr. Spencer Wells, and the Academy for the singularly pleasant illustration which it had given by this meeting of the unanimity of result which might be obtained by those who contributed of their wealth, and those who prosecuted their profession in the saving of human life.

Mr. George W. Callender sent a telegram announcing his inability to be present, on account of sickness.

The President then introduced the senior graduate of Oxford, and Honorary Fellow of the Academy, Dr. Samuel D. Gross, of Philadelphia.

Dr. Gross congratulated the Academy of Medicine upon the progress which it had made towards a great library institution, and wished it were in his power to add to the accumulation both in books and in money, but unfortunately he was nothing but a poor physician, a poor surgeon, and in that respect sharing the honor of most of those whom he addressed. He then recalled with melancholy feelings the name of Dr. John Watson, one of the founders of the Academy, and his object in so doing was simply to call the attention of the Fellows to the fact that the writings of the fathers of the profession are too much neglected at the present time. Who of us knew what we should of the writings of Hippocrates, Celsus, Ambrose Paré, Cullen, Gooch, the classical Pott, Richard Wiseman, John Hunter, and many others. He was quite sure that the time was not distant when great pains would be taken to present, either in the form of abstracts or the original works, the writings of the fathers of the profession to the rising generation. There were many useful kernels locked up in the writings of those men. He did not come with the view of making an address, but for the purpose of mingling with the Fellows of the Academy, and of shaking hands with and greeting some of his old friends, and, above all, to shake hands with his illustrious British cousin, Dr. Acland.

The President then introduced Dr. John S. Billings, of Washington, D. C., who congratulated the Academy upon the evidences of progress by which they were surrounded. He gave a brief report concerning the Academy's other library, of which he had charge, and known as the National Medical Library at Washington. It contained about 70,000 volumes and about 100,000 titles for cataloguing. It was probably the best practical medical collection in the world, and that fact was due to the completeness of its folios of journals and periodicals. The value of a library depended very much upon the nature of its catalogue. The index catalogue of the National Medical Library would give the names of authors and subjects, and there were probably about 8,000 subjects in the classification. The work on that catalogue was so far completed that no one man was necessary to its completion.

The President then introduced Prof. Shattuck, of Boston, late Regius Professor in Medicine in Harvard University, who made a few congratulatory remarks regarding the work which had been done by the Academy.

Dr. Willard Parker, Sr., ex-President of the Academy, was next introduced. He gave a historical sketch of the origin and rise of the New York Academy of Medicine. Of the 250 Fellows forty-five years ago, only 22 were living. Its present position was such as gave it a controlling influence upon the general hygienic condition and public health of the city. At the close of his remarks Dr. Parker offered the following resolution:

"*Resolved*, That the opening of the new Library Hall on the present occasion is a demonstration of the wisdom and zeal of the founders of the New York Academy of Medicine, an institution that has for its object the elevation, the education, and the culture of the medical profession."

Dr. Austin Flint, in seconding the resolution, expressed his congratulations upon the many occasions for joyfulness which were offered. In the first place, the Academy had secured a home. In the next place, it had secured a home through the bountiful munificence of a member of the medical profession, although he should not feel like offering any opposition to a further donation of a few thousands or even millions of dollars from one who was not connected with the medical profession. He congratulated the Academy upon the presence of its distinguished guests—Acland, Gross, Billings, Shattuck, and others; and finally extended hearty congratulations upon the future, of which the present was an earnest.

The resolution was enthusiastically adopted.

The Academy then adjourned to partake of a bountiful collation provided by the President.

Correspondence.

EXOPHTHALMIC GOITRE.

To the Editor of The Medical Record.

Dear Sir:—Having under my treatment a case of exophthalmic goitre, I was naturally much interested in the article on that subject, in the number for September 20th, from the gentleman from Salt Lake City.

I should like to ask him whether he attributes his success to the monobromated camphor, quinine s., oxide of zinc, aloine, digitalis, belladonna, ipecac, phosphide of zinc, nux vomica, or the unguentum atropia, ung. iodoform, chloroform, oil of lavender, or the application of tinc. capsicum (B. P.)—or, after all, was it the emplastrum belladonnæ three by six inches? Or did *vis medicatrix naturæ* have anything to do with it? I am very sorry he did not try galvanism, for with that addition the treatment would have been complete.

As I said before, I am much interested, and would like to cure my patient, if possible, without the expense of sampling the entire materia medica.

Edwin Walker, M.D.

Evansville, Ind., Sept. 22, 1879.

EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

III.

For some reason, my young friend, Dr. White, has the reputation among the people of being not over-busy. This is somewhat unfortunate for him, as most patients believe that a doctor who has not much business is good for nothing. But I tell all such that it is well for every youngster that he has abundance of time for study, as he will be so much the more capable in future. They all know how hard I studied when I was young, and how much I benefited by it.

It is astonishing how few can appreciate the necessity for this state of things. Not long since I had occasion to discuss the matter with the editor of our leading newspaper. He commenced the conversation by intimating that White was a rising man. I was delighted to hear this, as I saw my opportunity for doing a good turn. I told him that White was one of the most promising young men I had ever met. He was, in truth, a genius; otherwise, with the small opportunities he had for self-improvement and early education, he could never have amounted to anything. Still, I believe that there was a good deal in hard study, for Dr. White had really done more in that line since he put out his shingle than ever before. He was just commencing to see what he did not know, and now, not being bothered with outside business, he was with his books constantly.

As I always like to illustrate a point with a story, I told the editor some of my earlier experiences in practice when I relied entirely upon my books. This caused him much amusement, and with a twinkle in his eye, he remarked that I had not proved to him that White was a very safe practitioner, and that this studying business without practice was like learning to swim without going near the water. I saw the mistake I had made, and passed it off as best I could. I said to him, however, that there was no one's book knowledge that I would trust in preference to White's.

We then fell to talking about White's prospects, and, as two friends would naturally do, became quite confidential. In the course of the conversation I told him that I intended to do all I could for White, and that I would, irrespective of helping him, be glad to relieve myself of some of my large business. It is true no one helped me, and it was to hard study and hard work, with not even genius to help me, that I owed my success; still, I took a fancy to White, and I believed him to be too modest and too timid to help himself. As an illustration of White's timidity, or rather his want of self-reliance, I gave a detailed account of his first obstetric case. These cases I find are always interesting to a married man with an increasing family.

The case was one of ordinary labor in a primipara. The examinations were frequent, and the anxiety great. White took his Bedford's Obstetrics by the bedside and studied as he waited. Finally, before he knew it, the waters broke and the head came down. Here I drew a diagram to illustrate the anatomy of the parts. Finally, after waiting twenty-four hours, to the great neglect of his other patients (and here we both smiled), the child was born. With a sigh of relief, Dr. White said the trouble was over. In hurriedly cutting the cord, the end of the prepuce was severed; but as there was an hereditary tendency to club feet in the family, this was accidentally of some prospective benefit. The editor remarked incidentally that he had witnessed operations of that sort, and had already written up the subject in his paper. But I must go on with my story. In due time the placenta was expected. The cord was presenting, and the mother-in-law was waiting. Soon Dr. W. imagined something wrong, and, as usual, sent for me. I was a hundred and forty miles away in consultation, and it was not until the next day that I returned, to find White still waiting for the placenta. When I arrived I made an examination, and found the afterbirth perfectly loose and ready to drop out. Of course it was delivered in a moment, but I remarked that I never could understand why W. could allow his patient to be in danger of bleeding, and not have self-reliance enough to do what every medical student should have done under the circumstances. And yet White knew, I continued, as well what to do as I did, because he had often quizzed me in advance concerning not only all the probable, but improbable features of that case. As it was, the woman died of puerperal fever, without any apparent cause for it. Of course my former partner, who is a trifle jealous of White, said the result was owing to bungling treatment; but I assured the editor that this was not the case. He smiled; and I, out of politeness, reciprocated.

Just then White dropped in, looking tired, and feeling so, as he said, having been studying all day. I introduced him to the editor, and joked him concerning his extensive practice. This part of the conversation ended by my promise to send him five patients on the morrow morning. These, the editor facetiously said, W. could nurse for a month at least.

I believe I have not said anything of a new instrument of precision which I invented. Its description will come in very well here, as it had a great bearing upon my success in practice, and as I remember that I exhibited it on that evening to both the doctor and the editor. Of course I told the latter that it was not considered exactly professional to parade our wares before laymen, but inasmuch as he was a friend I knew he would keep matters to himself. The great difficulty with me was to give the instrument such a name as would convey an idea of its extended and varied usefulness. In fact, it would appear that nothing more was desired either by specialist or general practitioner. I remarked that in my experience with every "ill that flesh is heir to," I had felt the want of this instrument, and that for the sake of my profession and suffering humanity I was very glad that I had succeeded at least in adding my poor mite to the general stock. Here I discovered the editor taking short-hand notes, but he stopped as soon as I looked towards him, and I went on to say that the only impediment to the universal use of the instrument was the fact that no one understood how to adjust it but myself. However, it was my intention to do all I could to explain it to my brethren, so that they might profit accordingly.

The instrument is constructed of several parts, and extends, when the latter are adjusted, from the anus to the base of the skull. After I had taken the requisite time to put it together, I gave a detailed description of it to Dr. White, the editor being merely an accidental guest. I thought that the shortest way to a description of the apparatus was to give a history of its construction from the beginning. Accordingly I related to Dr. White a curious and obscure case of disease in a female, which commenced with an abrasion of the os and ended with leucorrhœa. It became quite necessary to examine the os, and so I thought

about inventing an instrument for the purpose. I saw "my instrument-maker," and he suggested that a new vaginal speculum might do the business. To make this part of the story short, he constructed for me my back-action, self-retaining pessarized speculum. This was in the course of the following description shown to Dr. White and several other acquaintances, who from time to time dropped in. It consisted of a tubular arrangement, expanded at the bottom, trumpet-shaped, and so split as to open when required. It differed from all other instruments of its kind, from the fact that the rim of the trumpet extremity was colored red. Several gentlemen to whom I showed the instrument were very much pleased, and I accordingly offered it to the MEDICAL RECORD for publication.

When I found what a good thing I had, I commenced to make improvements. By the way, I forgot to say that the woman, by the use of this instrument, entirely recovered.

I further stated that I found, by attaching an ophthalmoscopic mirror to the extremity of the speculum, I could direct the light to the internal os. By this additional appliance, I discovered that a very large majority of obscure cases of female disease are traceable to a slight abrasion of the mucous membrane at this point. By the use of a magnifying glass attached to the end of the mirror, these abrasions could readily be seen, as well as the extremity of the Fallopian tube. I related five cases in point, by way of illustrating the necessity of diagnosticating this condition. So satisfactory were these examinations, that I was encouraged to increase the adaptability of my instrument. I found, in attempting with my catheter attachment to explore the Fallopian tubes, that as soon as I reached the fimbriated extremity, and was ready to grasp the ovum, the sphincter vaginæ relaxed and the speculum was no longer kept in place. I then explained the reason for this by referring to the wonderful sympathies of the vaso-motor system.

I accordingly devised an apparatus which extended behind, around the buttocks, and into the hollow of the back. This being accomplished, and the instrument being steadied, I could succeed, not only in getting the view I desired, but in securing spermatozoa in any part of the Fallopian tube. By this means I had been enabled, by examining the spermatozoa microscopically, to determine whether or no the patient's husband was predisposed to cancer, phthisis, impotency, neuro-asthenia, or insanity. In nine hundred and thirty-six cases which I had the opportunity of examining for suspected cancer I had found that eighty-five per cent. had a granular degeneration of the tail of the spermatozoa, corresponding in position to the fourth dorsal vertebra. In eleven hundred and two cases of suspected phthisis there was a fatty degeneration of the cervical portion of the tail; and in twelve thousand five hundred and seventy-nine cases of confirmed impotency there was a marked shrinking of the basilar portion of the head. The editor became very much interested at this point, but soon after lapsed into day-dreaming.

The results of these cases were so surprising that I was forced to attach a microscope to the mirror. This attachment, when advantage is taken of the hydraulic pressure of the bladder, can be so operated in connection with mirrors that the tissue of the ovary can be examined *in situ*. I then alluded to forty-three cases of prospective ovarian tumor which I had diagnosticated by that means. I intend to report these cases at some future time, showing the advantage of an early diagnosis and the use of my instrument.

At the risk of being considered too enthusiastic in my claims for this instrument, I described some other uses to which it was adapted. Its dilating powers were almost past belief. By the way, I stated that it, with slight modifications, could be used for the rectum, urethra, ear, throat, and with the Fallopian attachment had been employed in exploring the Eustachian tube and viewing the tympanum from the inside. I took occasion at this stage of the proceedings to say that I knew Roosa would be keenly alive to the advantages of this improvement. I may remark in passing, that since I sent him this part of my apparatus he has recommended all his ear cases to me. But this is only by the way. I further remarked that in a number of cases of stone, I had dilated the urethra so that I could introduce my hand into the bladder. This was an improvement on any method of procedure heretofore devised, inasmuch as when this could be done no crushing was needed. I explained, of course, how necessary it was to be careful in the manipulation, and to understand the anatomy of the parts, but in proper hands I thought the operation eminently safe. Willing to give White a chance to say something for himself, I asked him if he had ever done such an operation. To my surprise, however, he answered in the negative. Impressing him with the fact that the disease was a very common one, and sometimes not suspected by the patient, I alluded to my forty-ninth successful case.

I find that I am so much interested with this part of my subject that I cannot resist the temptation of continuing my description. The upper section of the apparatus extended from the lumbar region to the occiput, and supported an ear-speculum with ophthalmoscopic and thermo-electric attachments. Here, too, were a series of mirrors which corresponded in axes with those of the speculum, and which enabled the acute observer to examine the base of the brain and take the temperature of the pituitary body; at the same time he might be exploring the hitherto hidden recesses of the Fallopian tubes, or watching the progress of a calculus through the ureter. The latter could, however, never be done, unless the urethra was suitably dilated. I here exhibited a number of polished gas-pipes of different sizes which I used for the latter purpose.

By this time, although my audience was much interested, I confess that I was a little tired, but I concluded what I had to say by referring to the advantages of the back attachment as a spinal brace. I explained how all other braces were worse than useless, that plaster-Paris was likely to interfere with the secretion of pancreatic juice, and that my appliance was the only one founded on the correct principle of hydraulic pressure. I illustrated this on a hump-backed friend of the editor who happened to be present. As the evening was getting late, I only related one typical case of the many hundreds treated by me. This was a young man who had spinal disease and had not walked for many years. He was so feeble than when moved from one house to the other it was necessary to let him down through the roof. He was seen by several specialists, and all sorts of apparatus applied. In despair he sent for me, and after wearing my apparatus for a day he became so much improved that he joined a travelling circus. To prove this I read a very affecting letter from the patient, describing his great champion act upon the trapeze. The company then dispersed, and White and I were left to talk over professional prospects. * * *

PINK RIDGE ON THE HUDSON

THE NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

To the Editor of The Medical Record.

In your issue of August 9th, "G." leaves the main point at issue in the beginning of this argument, and branches out rather extensively into the merits or demerits of the homœopathic school of medicine. I am sorry to see that he shows such a sectarian spirit; it is simply against this, and for *true* and *honest liberality* in medicine that I am contending. To answer "G." properly, I should necessarily have to enter into detail, and the question is such a voluminous one, that I fear it would take up too much of your valuable space. I should be very happy to correspond with "G." upon these points or any other, however, and if he will send me his address privately, through your hands, I will do my best to answer him. "B."

DETERMINATION OF SEX IN UTERO.

To the Editor of The Medical Record.

Dear Sir:—In looking over some of the back numbers of The Medical Record, I noticed an article headed, "The Determination of Sex in Utero," in your issue of Nov. 23, 1878, in which Dr. Joseph Mudd speaks of Dr. J. W. Swift and his theory of "conception preceding menstruation," and says that in this case the product will be female and *vice versa*, while Dr. Napheys has an entirely opposite opinion. Further on, Dr. Mudd says that he has experimented in all twenty-nine times, and in all cases has succeeded in the production of what he looked for—male or female. Now I have just one question to ask the learned doctors, and I think it will knock their theories into infinitesimal atoms: At what period did copulation or conception take place when the product was twins—one of them male and the other female? Awaiting an answer, I remain

Your obedient servant,

T. C. Waite.

Pittsburg, Pa.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 28th to October 4th, 1879.

Clements, B. A., Major and Surgeon. Granted leave of absence for four months. S. O. 228, A. G. O., October 2, 1879.

Brown, H. E., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to leave the Department and apply for one month's extension. S. O. 205, Dept. of Texas, September 29, 1879.

O'Reilly, R. M., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to leave limits of Department. S. O. 145, Dept. of the South, September 26, 1879.

Gray, W. W., 1st Lieut. and Asst. Surgeon. When relieved from duty at Ft. Colville, W. T., to proceed to Vancouver B'ks, W. T., and report to the commanding officer for duty. S. O. 123, Dept. of the Columbia, September 15, 1879.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, July 1st to September 30th, 1879.

Ellinwood, C. N., Surgeon, granted leave of absence for thirty days from August 12, 1879. August 5, 1879. Ordered to rejoin his station. Sept. 10, 1879.

Bailhache, P. H., Surgeon, relieved from duty at the port of Baltimore, and ordered to New York to relieve Surgeon Ellinwood, granted leave of absence. August 6, 1879. Detailed as Chairman Board of Survey, to examine damaged property at the New York Marine Hospital. September 23, 1879.

Doering, E. J., Surgeon, detailed as Chairman Medical Board of Survey, to examine into the physical condition of an officer of the Revenue Marine Service. September 22, 1879.

Gassaway, J. M., Asst. Surgeon, detailed as member of a Board to report upon the advisability of establishing a marine hospital at Port Townsend, Wash. Ter. September 18, 1879.

Fisher, J. C., Asst. Surgeon, relieved from duty at Cairo, Ill., upon the arrival of Asst. Surgeon Carter, and ordered to report for duty to the Surgeon-General, M. H. S. August 25, 1879.

Brown, F. H., Asst. Surgeon, granted leave of absence for fifteen days from July 12, 1879. July 7, 1879.

Goldsborough, C. B., Asst. Surgeon, assigned to temporary duty in charge of the Service at the port of Baltimore, Md. August 6, 1879. Granted leave of absence for twenty days from September 22, 1879, by reason of physical disability. September 19, 1879.

Irwin, Fairfax, Asst. Surgeon, granted leave of absence for thirty days from October 7, 1879. Sept. 18, 1879.

Glazier, W. C. W., Asst. Surgeon, to proceed to Georgetown, S. C., as inspector. July 17, 1879.

Dana, C. L., Asst. Surgeon, detailed as member Board of Survey to examine damaged property at the New York Marine Hospital. September 23, 1879.

Carter, H. R., Asst. Surgeon, relieved from temporary duty at the port of Boston, Mass., and ordered to proceed to Cairo, Ill., and assume charge of the Service, relieving Asst. Surgeon Fisher. Aug. 25, 1879.

Heath, W. H., Asst. Surgeon, to proceed to New York for temporary duty. July 15, 1879. Relieved from duty, port of Georgetown, D. C., and ordered to report to Surgeon Ellinwood, port of New York. July 26, 1879. Detailed as Recorder, Board of Survey, to examine damaged property at the New York Marine Hospital. September 23, 1879.

The following condidates having passed the required examination, were appointed Assistant Surgeons, July 21, 1879:

O'Connor, Francis J., of the District of Columbia, (assigned to temporary duty, port of Georgetown, D. C., July 26, 1878. Ordered to Baltimore, Md., for temporary duty during the absence of Asst. Surgeon Goldsborough, September 20, 1879), and

Porter, Frederick D., of Michigan, (assigned to temporary duty at the port of Detroit, Mich., July 25, 1879. Granted leave of absence for fifteen days from September 6, 1879. September 1, 1879.)

Treatment of Phlyctenular Keratitis with the Galvanic Cautery.—The galvanic cautery is enjoying great prominence now in surgical therapeutics. It has been pushed to the fundus of the uterus, thrust into the trachea, and has touched upon nearly every anatomical point between. One of the last and most delicate of its uses is that to ulcers of the cornea. M. Legroux, of Paris, has employed it with much success for such affections. He has a very fine platinum wire which can be made red-hot almost instantaneously. With this he touches the ulcer and then drops on a little warm water. There is very little pain, and the results are promptly favorable.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 27, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 27, 1879.	0	31	31	3	18	35	0	0
Oct. 4, 1879.	0	11	34	1	14	20	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 1st to October 7th, inclusive, was 52, and the number of deaths that occurred was 29. The total number of new cases for this year to October 8th is 1,403, and the total number of deaths, 480.

CRUDE PETROLEUM IN CONSUMPTION.—M. M. Griffith, M.D., Bradford, Pa., writes: "A great many 'new remedies' and 'new preparations' are now before the public for consideration and sale. I would call attention to an old one, and cheap one. It is a well-known fact that consumption is almost unknown in the oil regions of Pennsylvania—and that it is never developed here. The only reason for it is, that we are daily consuming more or less of it in the water we drink and use in cooking purposes. The water obtained from the best wells and other sources, if left to stand over-night in an ordinary vessel will be covered in the morning with a scum of oil. It is evident that most of us consume more or less of it. Consumptive persons coming here from a distance soon find speedy relief from their lung difficulties, and rapidly gain flesh and strength. The climate of Bradford is the most unfavorable; the days in summer very warm, the nights cold and damp, and the weather very changeable, and also much wet and disagreeable weather—so it cannot be the climate that effects the change. The crude petroleum, no doubt, would long ago have become a popular remedy in lung difficulties, if it had not been for its very nauseating properties. I have sent a supply of the crude oil of a semi-solid consistency, that accumulates on the sucker-rods and casings of the wells, which is readily prepared into pills by incorporating it with any inert vegetable powder, to a number of physicians and hospitals, with a request to give it a trial in their cases of consumption. Sufficient time has not elapsed to give a full report, but thus far the report has been very satisfactory. About fifty per cent. of cures are reported of acute phthisis. It afforded much relief in all cases, and the report in most cases is that it effected cures in all curable cases. I do not claim that it is a specific, but that it will do more good in chronic lung troubles than anything yet suggested.

"The crude is rich in hydrocarbons, and seems to have a special action toward the lungs, relieving cough, hectic, night-sweats, and flesh and strength is rapidly gained. I have had it under trial now during the last twelve months, and I can state that my faith in it grows stronger the oftener I prescribe it. The pills are made of the usual size, three to five grains. Three to five pills daily, or when the cough is troublesome, or as the case seems to require; relief is apparent from the first. The curable cases were, to all intents and purposes, as well as usual in less than three months; many much sooner."

Petroleum has been known from a very ancient period. Herodotus refers to wells existing in Persia from time immemorial. It was known by the Seneca Indians of our own country as Seneca oil, etc.

The United States Dispensatory refers to it as a stimulating, anti-spasmodic expectorant and diaphoretic. It stands high as a domestic remedy in the oil-fields. It is to be hoped that the profession will thoroughly investigate the matter, and give their experience of this cheap and valuable medicine.

OPENING OF THE WINTER SESSIONS AT THE PHILADELPHIA SCHOOLS OF MEDICINE, DENTISTRY, AND PHARMACY.—In the University of Pennsylvania, Theodore G. Wormley, M.D., LL.D., Professor of Chemistry, made a general address introductory to the one hundred and fourteenth course of lectures in the medical department, and the second course in the dental department, on Wednesday, October 1st, in the hall of the medical department. A large number of the college alumni, as well as the faculty, were present.

On the same day, in the Pennsylvania College of Dental Surgery, Twelfth and Filbert Streets, Dr. Henry C. Chapman, Professor of Physiology, delivered the opening lecture of the course, and the Seventeenth Annual Session of the Philadelphia Dental College was opened by Prof. J. Foster Flagg, D.D.S.

Roberts Bartholow, M.D., LL.D., late of the University of Ohio, Cincinnati, and Professor of Materia Medica and Therapeutics in Jefferson College, delivered, on Wednesday evening October 1st, in the amphitheatre of the College Hospital, Sansom Street, above Tenth, the introductory lecture to the fifty-fifth session. He was introduced by Ellerslie Wallace, M.D., Dean of the Faculty. After paying a tribute to the memory of his predecessor, Dr. Jno. Biddle, as a teacher, a writer, and a President of the American Medical College Association, Dr. Bartholow spoke at some length upon "The Present State of Therapeutics" (printed under head of "Original Lectures" in this number).

Upon the conclusion of his remarks, Professor Bartholow, who began, on that evening, his official connection as a member of the College Faculty, was warmly welcomed by the students, and presented by them with a handsome floral design and a service of crystal.

On the afternoon of the same day, Mr. Charles Bullock, Vice-President of the Philadelphia College of Pharmacy, Tenth Street, above Arch, briefly introduced to the students and faculty, Samuel Philip Sadtler, M.D., whose address reviewing the field of pharmacy and treating practically of the various chemicals, etc., opened the fifty-ninth annual session of the institution. This is Prof. Sadtler's first year as a member of the College Faculty, and the students, as a mark of their appreciation of his worth, presented him with a beautiful floral design. The college opens this session with a large class, which has been increased by 175 matriculates, who passed their examination yesterday.

B. B. Wilson, M.D., Professor of Principles and Practice of Surgery, delivered, on Thursday afternoon, October 2d, the general introductory lecture to the session of 1879-80 in the Women's Medical College of Pennsylvania.

The medical class at Jefferson College this year numbers over 600 students, and the matriculating

class at the Medical School of the University of Pennsylvania has thus far 125 members.)

THE NORRISTOWN, PA., STATE HOSPITAL FOR THE INSANE.—Work upon the new State Hospital for the Insane, at Norristown, is progressing satisfactorily. All the buildings are under roof except the Administration Building, which has had the second story recently put on. Five of the ward buildings are virtually completed, including the steam-heating apparatus. The six boilers are nearly ready to be placed in position, and it is expected that steam can be turned on in another month. The floors of the wash-house and kitchen are to be of stone, instead of lithogen, with which the corridors have been paved. It has been thought advisable to secure gas from the Norristown Works, instead of building gas-works, and a contract has been entered into with the Norristown Works for a supply at two dollars per thousand feet. In view of the probable completion of the buildings by the 1st of December, the Secretary of State has been requested to notify the Governor that the time has arrived for the appointment of the trustees authorized by law.

THE NEWLY APPOINTED QUARANTINE IN THE DELAWARE RIVER.—At the weekly meeting of the Philadelphia Board of Health on Tuesday, September 16th, the joint committee, composed of the Lazaretto Committee, in conjunction with the officers of the Board, to whom was referred the proposition of the National Board of Health for the establishment of a quarantine station at the Delaware breakwater, presented their report. After reciting the facts that the proposition grew out of an application for a remedy to prevent boarding-house runners from getting aboard vessels coming up to the city, and after reciting the order itself, the report proceeds as follows:

"This order may be looked upon in three aspects. First. Does it meet the difficulties complained of by our Board? Second. Are there any grave objections to its methods? Third. If the latter is the case, have we any substitute to recommend?"

In regard to the first point, it is to be said that it entirely meets the difficulties complained of, so that vessels possibly infected would be completely isolated on the passage up the river to the vicinity of the present quarantine station, as desired.

"But, to come to the second point, the order provides for a new boarding station, and this appears to us an objectionable feature. According to the text quoted above, this is 'to be established at the mouth of the Delaware River, in the vicinity of the Breakwater, or at a point to be approved by the National Board of Health.' In the vicinity of the Breakwater, we are informed, there is no good anchorage for large vessels, ocean steamers for instance, and should such arrive there after sunset they would be obliged to cruise about all night, to their great danger, if the wind was easterly, and to the very great annoyance of the passengers under any circumstances. Farther up the bay the channel runs at some distance from the shore, giving no point where vessels could lay to as conveniently as higher up the river. No eligible site presents itself until within thirty miles of the Lazaretto, and when such is found, a new objection arises, namely, it would be burdensome to the commerce of the port to subject vessels to the delays and inconveniences of an additional boarding station. To learn the sense of those most directly interested in the commerce and trade of the city on this important question, we addressed notes to the Maritime Exchange, Commerce Exchange and Board of Trade, calling their attention to the matter, and hoped to lay their views before the Board with this report, but, as yet, have not received them. The press has, however, spoken strongly against the project."

With reference to the third point, we would recommend, instead of the enforcement of the order, that the National Board of Health place a patrol boat on the river to run between Fort Delaware and the Lazaretto, the officer in command of which shall arrest any persons found communicating with inbound vessels subject to quarantine and bring them and their boats to the quarantine station, or simply to place an officer with the same powers on the revenue cutter doing duty on the river.

In conclusion, we offer the following:

Resolved, That a copy of this report be sent to the National Board of Health and that the honorable Board be respectfully requested to adopt either of the two measures above suggested as a substitute for their order establishing a quarantine of observation upon the Delaware.

The report was adopted and the Board adjourned.

NEW YORK AND NEW JERSEY QUARANTINED.—Portugal has issued a decree establishing quarantine against the States of New York and New Jersey. The decree is based, of course, upon erroneous information, and is very injurious to our commerce there, as well as being extremely absurd.

TREATMENT OF METRORRHAGIA BY PLUGGING THE CERVICAL CANAL.—Dr. Henry Bennett, in the *British Medical Journal*, describes the above method of treating metrorrhagia, it being one that he proposed nearly twenty years ago, and has frequently used since. He brings the cervix into view, and passes into it two or three small pieces of cotton tied by a thread, and then covers the whole cervix with two or three larger pieces, which are left in close contact with the os upon withdrawal of the instrument. In this way he rarely fails to stop the bleeding. The cotton is not treated with any styptic, as that is unnecessary. The cases which indicate this method of procedure are those in which hæmorrhage persists after the entire removal of local disease, in enlargement of the uterus, or where small polypi or polypoid granulations exist, or in the hæmorrhagic habit. The superiority of this method over that of distending the vagina with tampons is claimed to be very great.

FREE COURSE OF LECTURES ON DISEASES OF THE SKIN.—Dr. Bulkley will give a third course of lectures on diseases of the skin in the Pathological Amphitheatre of the New York Hospital, 7 West 15th Street, Wednesday afternoons, from 2.30 to 3.30 o'clock, commencing Wednesday, October 8, 1879.

BOOKS RECEIVED.

MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION. Part II. Medical Volume, first issue. Surgeon-General's Office, Washington, D. C. 1879.

THE NATIONAL DISPENSATORY, by ALFRED STILLÉ, M.D., LL.D., and JOHN M. MAISCH, Phar. D. Second edition. Philadelphia: H. C. Lea. 1879.

STUDENTS' POCKET MEDICAL LEXICON, by ELIAS LONGLEY. Philadelphia: Lindsay & Blakiston. 1879.

HISTORY OF MEDICINE IN NEW JERSEY, AND ITS MEDICAL MEN, FROM THE SETTLEMENT OF THE PROVINCE TO A.D. 1800, by STEPHEN WICKES, A.M., M.D. Newark, N. J.: Martin R. Dennis & Co. 1879.

Original Lectures.

CLINICAL LECTURE

ON A

TRANSVERSE LESION OF THE SPINAL CORD IN THE DORSAL REGION.

DELIVERED AT THE PHILADELPHIA HOSPITAL,

By CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

THE patient, R. M——, is a mulatto forty-one years old. On two occasions, more than twenty years ago, he had chancres, but he has never had any of the usual manifestations of secondary or tertiary syphilis. He claims that he was not a hard drinker and was not addicted to sexual excesses of any kind. He has no history of an injury. He comes from a long-lived family, and his general health was good until eighteen months ago, when, without any known exciting cause, he was taken with a feeling of soreness and weakness of the left foot, which soon extended as high as the left knee. In two weeks the right leg below the knee was similarly affected, and within a month he began to experience pain in the lower part of the back. For a few weeks before the paretic symptoms set in, the left foot would now and then feel numb and cold. Gradually the loss of power in his lower extremities and the unpleasant sensations in both legs and back grew worse. Occasionally he had involuntary twitching of the legs. Four months after the first positive paretic symptoms, he began to have the sensation of a band or girdle around the waist.

In six months from the first appearance of the sensori-motor symptoms in his left foot he was compelled to take to his bed. His legs were now quite helpless; he had constant dull pain in his back; the girdle sensation and a feeling of dragging in the abdomen were constantly present, and very annoying; passages from bladder and bowels were involuntary; and he had marked symptoms of abnormal reflex activity, such as a curious jerking of the knees, and retraction of the feet on slight irritation. He does not think that he had fever; he had no mental manifestations; no facial or ocular troubles; no symptoms whatever referred to the upper half of his body. No bed-sores made their appearance.

He remained in bed several months and took large quantities of iodide of potassium, from which he seemed to derive considerable benefit. Severe cauterization of his back was resorted to twice, and also apparently did great good. Under its influence the girdle sensation disappeared, the pains in his back improved, he partially regained control of his bladder and bowels, reflex excitement largely subsided, and his legs recovered some of their strength.

During the last six months he has made some improvement under the use of specific and tonic treatment.

Let us examine him as he sits in his invalid chair, for he is unable to stand or to bear any weight on either leg. His general appearance is good; his face not expressing any special care or suffering, and his body and limbs not showing any marked wasting. Nothing wrong can be detected about the head; his sight, hearing, and other senses are unaffected. The only symptoms which he has had in the parts of the body above the waist have been feelings of numbness or stinging in the little and ring fingers of the left hand; several months since he had sensations of this kind which would last two or three hours and then pass off, to return again after the lapse of hours or days.

In answer to my questions, he says he has no longer the sensation of a cord around the waist. When it was present—a point of some interest in locating the level of his myelitic lesion—it was immediately below the umbilicus. Examination of the spine by pressure, percussion, heat, and cold, and electrical tests, elicits no response—no shrinking or other manifestations of pain. He now has fair control over his bowels and bladder.

With him, as with many other similar cases, I find considerable difficulty in making quantitative determinations in regard to sensation. Touching his feet or legs gently at any part with the points of the æsthesiometer, twitchings are produced, as if both sensation and reflex action were exalted; at the same time his answers in regard to the distance apart of the two points of the instrument are very irregular and confusing. He declares, however, that he feels the impressions very acutely. Sensibility in the right leg and foot appears to be slightly better than in the left. No retardation of conduction for pain, touch, tickling, pressure, or temperature, can be determined by the ordinary tests.

Both lower extremities are almost absolutely paralyzed, a little power being retained in the left limb. As helpless as are his legs, however, they do not show any marked trophic or vaso-motor changes; wasting is comparatively slight, and no ischæmia, eruptions or bed-sores are present.

Electro-contractility is retained; active quiverings and contractions are produced with a faradic current of moderate strength. I am also able to demonstrate on this patient the so-called "diplegic contractions." Applying one moistened rheophore to the spine in the dorsal region, and the other along a nerve-trunk in the leg, contractions are caused not only in the muscles on which the electricity is directly acting, but also in those of the other limb; sometimes a strong current applied to one thigh will cause contractions in the corresponding muscles of the other side. These electrical phenomena, as also the reflex manifestations to be next considered, probably indicate some vascular excitement at the seat of lesion, and also point to a nearly complete transverse destruction of the cord.

This patient has already furnished us with several studies of much interest, but his most striking symptoms have reference to reflex action. In cases of spinal disease, the reflex activity of the cord may be normal; or, what is more likely, it may be either diminished or increased. Reflex action may be studied clinically in several ways. Irritation of the skin is an old and common method of investigation; we can resort to tickling, or to pricking with a needle or the compass-points. The soles of the feet are favorite areas for these experiments; but the palms of the hands, the belly, the thighs, and, indeed, in pathological cases, almost any part of the body affected by the spinal lesion will answer. Annoying reflex actions sometimes take place during the performance of such operations as catheterization, but I would hardly recommend the use of the catheter for studying reflex phenomena. Within a few years the so-called tendon reflexes, or tendinous reflexions, have been attracting a large share of attention. These reflexes are certain responsive movements which are called forth by mechanical irritation of tendons; by striking, for instance, the patellar ligament, the tendon of the quad

riceps extensor, the tendo-Achillis, etc. They have been carefully studied by Westphal, Erb, Gowers, Hamilton, Gray, and others.

Touching the sole of either foot of this patient causes the foot and leg at once to be drawn up somewhat violently; and gently pricking the skin with the compasses at almost any point on the legs causes active but irregular muscular twitchings or jerking of the entire limb. The skin reflexes are exalted.

Taking up the tendinous reflexions, I will first direct your attention to the patellar ligament, the most convenient point for investigating these phenomena. One leg can be thrown over the other so as to elevate the foot from the floor, or, what is better, the patient can be seated on a table, or the side of a bed, so as to allow his legs to dangle freely. The limb should be perfectly relaxed, and if the individual has any will-power over it, he should be directed to not exercise this volition, but to keep his mind as nearly as possible in a negative condition.

I lightly tap the ligamentum patellæ, first of one side and then of the other, with a single finger, and a quick forward propulsion of the foot and leg results; repeating the tap again and again, the movement is rendered more violent and tends to become a continuous but irregular vibration. With the ulnar edge of the hand I next strike the tendon of the quadriceps extensor cruris, and, with a jerk, the leg is again extended upon the thigh. Percussion of the tendons of the adductors, of the gracilis, and of the tibial muscles, etc., causes a motor response, although not of as violent a character as that elicited from the patellar and quadriceps tendons. A curious reflex in this case is one which I bring out by tapping the testicle, and along the line of the spermatic cord near the pubis, a slight retraction of the testicle takes place, probably due to the action of the remaining fibres of the cremaster muscle. Percussion along the spine of the tibia, you also observe, calls out the reflex action of the quadriceps almost as well as striking upon its own tendon.

Placing my hand under the ball of the patient's foot, I suddenly press the foot upward. The result is remarkable. At first the foot is affected with a general tremor which passes upward; a moment later it begins a sort of waggling movement; soon the entire leg is involved, and is tossed about in the most fantastic manner. Performing the same experiment upon the other foot, both limbs are now the victims of this irregular shaking, jerking, and swinging, better than chorea conveying the idea of a true "insanity of motion."

The act of forcing the fore-part of the foot upwards, in the manner which I have just shown, is what is known as "passive dorsal flexion." The movement which results is the foot- or ankle-clonus, or "foot-phenomenon" of Westphal. You could not have a better example of it. The tendo-Achillis is put upon the stretch; it is irritated by the state of tension into which its fibres are thrown; exaggerated reflex actions are called forth, and these cause alternate flexions and extensions, due to successive contractions and relaxations of antagonistic muscles. The phenomenon is similar in many respects to that described by Brown-Séquard and Charcot as spinal epilepsy. In order to call out the movement, it is sometimes necessary, in addition to forcibly flexing the foot, to strike upon the tense tendo-Achillis with some object, but here this is not required; mere flexion of the foot starts it on its convulsive round.

The symptoms presented by this case would seem to point, with scarcely a doubt, to a transverse lesion of the spinal cord above the lumbar enlargement, probably in the mid-dorsal region. The history of the case is that of a gradually supervening paralysis of both legs, with the cincture sensation, pain in the back, paralysis of bladder and bowels which partially passed off, and abnormal reflex activity. The lower extremities, although paralyzed, are not markedly wasted; they exhibit neither vaso-motor or trophic changes of any moment, and their muscles respond well to electricity, showing that the lumbar enlargement of the cord—the region in which originate the important nerve-trunks of the lower limbs—remains comparatively intact. The position of the cincture or girdle feeling, at or just below the umbilicus, would also indicate a lesion in the middle, or from the middle toward the lower end of the dorsal region. A careful study of this symptom alone will sometimes enable us to arrive at a tolerably accurate idea of the seat of a spinal lesion; it probably indicates the highest sensory nerves involved in the lesion. In cases of dorsal lesion, also, partial control of the bladder and bowels is not infrequently regained, as in this patient. The slight numbness or stinging experienced for a short time in the left little and ring fingers was probably caused by a temporary extension upwards of congestion or inflammatory action from the main lesion to the lower cervical region. The impossibility of any permanent injury to the cervical cord having taken place is clearly shown by the absence of symptoms which would indicate involvement of the brachial plexus, and also by the fact that respiratory, circulatory, and oculo-pupillary manifestations are wanting.

A theoretical explanation of the abnormal reflex actions exhibited in this case is not hard to give. Reflex centres are probably situated in the gray matter of the spinal cord, and these are dominated by the brain. Excessive reflex may be due to unnatural excitability of these, or to a calling off of the restraining or inhibitory influence of the cerebrum. The apparently spontaneous movements experienced early were probably indications of an acute or subacute inflammatory condition. At present the same cause may be partly operative; but mainly the reflex actions are wayward and excessive, because a limited but destructive lesion has separated the lower reflex spinal centres from the inhibitory apparatus of the brain.

It is much easier in this case to locate the lesion than it is to arrive at a positive conclusion as to its nature. The man has a clear history of syphilitic infection; specific treatment has been of service, and it is altogether likely, therefore, that you have here some form of syphilitic disease affecting the spinal cord. It is not necessary to the explanation of the symptoms for the disease to be intramedullary. Any pathological condition or process that would cause limited compression and secondary myelitis of the mid-dorsal cord might give rise to the phenomena here manifest. A careful study of the history of the case leads to the idea of a gradual compression or destruction of the cord from its anterior surface. Vertical sclerosis, atrophy of the gray matter, vertebral periostitis or exostosis, caries, meningitis, and tumors of the dura- or pia-mater, or of the cord, are among the spinal affections which may owe their origin to syphilis. An intra-meningeal growth would account pretty satisfactorily for all the symptoms.

The treatment so far instituted in this case has been chiefly anti-syphilitic in character. A year ago he took iodide of potassium with advantage. Since coming into my hands mercurial inunction has been pushed until constitutional effects were produced, and more recently he has been again taking iodide of

potassium. The actual cautery has also been used on several occasions with apparent benefit. The method of cauterization which I prefer, as you well know, is the superficial burning with a white-hot iron. I have found in this, as in very many cases of chronic spinal disease, occasional dry or wet cupping of the spine to be of service. Galvanization of the spine has also been tried, but does not appear to have done any perceptible good. Faradization was used for a short time with advantage, but ceased to be of service after a few applications. Tonics have also been given. The patient is undoubtedly in a better condition now than he was several months since. Then he was confined to his back, he suffered from rachialgia, his passages were involuntary, etc. Now he is able to be up in a chair, and all of his symptoms have abated in intensity.

Original Communications.

INTERNAL URETHROTOMY AND LITHOTRIPSY

AT THE SAME SITTING, IN A PATIENT 79 YEARS OF AGE; WITH REMARKS ON RAPID LITHOTRIPSY, AND ON THE EVACUATION OF DETRITUS FROM THE BLADDER.

By J. W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK, SURGEON TO BELLEVUE HOSPITAL, ETC.

For the facts connected with the previous history of the case detailed below, I am indebted to Dr. Ramon L. Miranda, who obtained them from the patient. I take great pleasure here in making my acknowledgments to Dr. Miranda for his valuable aid in the management of the case.

Doctor ——, an eminent surgeon of Havana, Cuba, seventy-nine years of age, of spare build, but of great energy, has of late years become invalided on account of dysury and of vesical irritation; but he has nevertheless been able to perform his usual labors, and his general health has suffered but little. Without antecedent urethritis, he has had symptoms of urethral stricture ever since 1836, when J. Cloquet, of Paris, detected a narrowing in the pendulous portion of the urethra, for which, however, nothing was done, and he seldom suffered more than ardor in urination, principally during the night, or after having taken more than his wonted exercise.

On the 30th of June, 1878, after an obstinate constipation of four days, he was seized with complete retention of urine, from which, in twenty-four hours, he was relieved by the introduction of a gum catheter No. 3 (French scale), which was kept in for three days. Its removal caused much pain, owing to alteration of its surface by the urine. It was replaced by another catheter, which was renewed every day, but retained only from four to eight hours. This was continued eighteen days, and the bladder regularly irrigated with sundry solutions—of acetate of lead, phenic acid, etc. Baths, cataplasms, leeches to the perinæum, etc., were also employed. From that time he began to experience, during each act of urination—which was unduly frequent and difficult—much pain at the anus and in the urethra, especially in the fossa navicularis, and the urine became purulent. These symptoms have ever since persisted with more or less severity. He has never had pain in consequence of riding on rough pavements, and twice he rode one mile in a carriage to see me, without suffering the least inconvenience. He had consulted many surgeons, most of whom were of opinion that his troubles were caused by prostatic enlargement and urethral strictures. About a year before I saw him, gradual dilatation was suggested, and then internal urethrotomy, which was done in September, 1878, with Maisonneuve's urethrotome. The incision made was very superficial ("nothing more than a scarification"), and a "straight metallic sound, No. 11 (French), was introduced with much force—causing intense pain—without entering the bladder." In the course of an hour the extravasated blood in the surrounding connective tissue formed a tumor on the right side of the body of the penis, extending to the pubes; this hæmatoma gradually disappeared, but left at the base of the penis an induration which has remained very tender to the touch, and which has seemed to the patient to be the starting-point of the great pain he has suffered while urinating.

Continuous dilatation was afterwards tried with Benique's catheters, from No. 6 to No. 1, changing the instrument every twenty-four hours. During this course of treatment of twenty-one days there was the most profuse suppuration, and finally on the twenty-first day a free hæmorrhage. From that time until July, 1879, a sound was introduced every second day, but without the slightest benefit. The only relief he experienced was from frequent vesical irrigations with tepid water. Meanwhile the bladder was several times explored, but no calculi were detected; still the patient himself thought that there might be stones. Once the bladder was injected with a strong solution of nitrate of silver on account of "recto-vesical neuralgia." This he thinks made him much worse. He finally concluded to come to New York to be treated, and on July 21, 1879, called upon me at the suggestion of, and with, Dr. Ramon L. Miranda. I detected, with a soft bulbous bougie, three urethral strictures—one in the fossa navicularis, the second at two inches and a half, and the third at four inches from the meatus; this last admitted No. 6 (Eng.). I made dilatation to No. 8 steel sound, and, wishing to ascertain whether he could empty his bladder, I passed a No. 6 (Eng.) Mercier soft catheter, and as soon as it entered the bladder grated against a hard body, which I thought was a stone; very little urine flowed—not more than an ounce—and no bleeding ensued. Rectal exploration revealed hypertrophy of the prostate to double its normal size. There was no median prostatic hypertrophy, as afterwards ascertained. My mind was made up as to what should be done, but as the patient was very nervous and timid from his previous sufferings, and as, besides, he required preparatory treatment, I said nothing of the necessity of a cutting operation, but simply advised daily vesical irrigations, and the introduction of sounds partly to dilate the strictures, partly to blunt the extreme sensitiveness of the urethra, and enable me the better to explore the bladder. Full doses of quinine were prescribed. On the following day I passed a No. 8 sound, and as it entered the bladder its point came in contact with a calculus. Dr. Miranda took the sound, and also felt the stone. I then introduced a Mercier catheter and irrigated the urethra and bladder with a solution of biborate of soda. This was repeated daily until August 5th. Twice during that time I was obliged to push back with the sound a calculus which was engaged in the urethro-vesical orifice, where it had been creating much irritation for several hours.

Nos. 9, 10, and 11 sounds caused much pain, which was, however, well enough tolerated, and no rigor, no hæmorrhage, at any time followed the use of these instruments.

He rested each day, but was able to call at my house to be catheterized. I thought further attempts to dilate the strictures out of the question, as they were extremely resilient, and advised internal urethrotomy and lithotripsy at the same sitting, and the 7th of August was appointed for the day of operation. A cathartic on the 6th, and an enema on the morning of the 7th were ordered. Assisted by Drs. Miranda, Lewis, Roberts, Sayre, Jr., and Goodwillie, who administered nitrous oxyde, I made free division of each of the three strictures, from behind forward, with Civiale's urethrotome, and was able to introduce a steel sound ten millimetres in diameter; then, with a flat-bladed lithotribe, seized and crushed four phosphatic calculi, one of half an inch, and three of three-eighths of an inch in diameter. I also caught and crushed seven fragments (some of these may have been small stones) each of a quarter of an inch in diameter, and four of one eighth of an inch—fifteen seizures in all, including the four stones. The lithotripsy proper occupied less than five minutes, during which time the lithotribe was twice introduced, and brought out charged with detritus. I noticed, while passing the instrument, that its point became engaged in the mouth of an old false route on the right side in the sinus of the bulb, but by altering its direction it went in without further impediment, and in the subsequent introductions of all instruments I always succeeded in avoiding this cul-de-sac. There were columns in the bladder, from hypertrophy of the muscular coat. Aspiration with Bigelow's elastic pear was then made, but very little detritus was brought out. The entire operation—that is to say, the exploration, the urethrotomy, the catheterism, the aspiration of detritus, etc., lasted twenty-eight minutes. There was very little loss of blood, and the immediate effects of the anæsthetic passed away rapidly. In two hours the bladder was emptied by means of a catheter, and in three hours after, catheterism was again done with a No. 14 (Eng.) Mercier gum catheter, which was then plugged and retained for seventeen hours. Every three hours the plug was removed, and the urine which flowed was at first fetid and tinged with blood, but soon became clear. The catheter was replaced by another, which was retained only seven hours. There was some tumefaction of the penis, which on the fourth day entirely disappeared. He was up on the seventh day. Nine grains of detritus had been obtained, partly from the beak of the instrument, partly by aspiration, and in the first two or three days eight grains came away through the catheter. Probably an equal quantity was lost, as he urinated spontaneously several times. Free doses of quinine were administered during the whole treatment, and the bladder was frequently irrigated with a solution of biborate of soda. As on the day he got up (Aug. 14th) he had a considerable amount of irritation at the urethro-vesical orifice, and the old ardor at the anus and in the fossa navicularis, I made an exploration of the bladder with a flat-bladed lithotribe, and seized and crushed three fragments (or small stones) of a quarter of an inch in diameter, brought out a beak full of detritus, and, with what was passed through the catheter, obtained in all eight more grains (the detritus was never weighed until it was quite dry); at the end of two days no more detritus came away. On August 19th I sent him to take a ride of four miles on rough pavements; when he returned the urine was slightly tinged with blood, and he felt the old pains in the perinæum and urethra. On the 20th I made a third exploration of three and a half minutes, and could find only two fragments, one of a quarter, the other of one-eighth of an inch, and brought out a beakful of detritus, which, when dry, weighed three grains. The total amount of detritus collected weighed, when dry, twenty-eight grains. After this he had no more symptoms of stone. Still, in two days I made another exploration, and in two more days a final and most thorough examination with the lithotribe, without finding any trace of calculous concretions. Steel sound No. 15 (nine millimetres in diameter) had been introduced every second day, and he was soon able to pass it himself. During the whole of this time he never had a rigor, nor indeed any other untoward symptom. On account of some remaining urethro-cystitis, I several times irrigated the whole urethra and bladder with a very weak solution of nitrate of silver, which produced the desired effect.

Before his departure he was able to urinate in a large jet, which was well propelled for a man with a large prostate, and on several occasions, immediately after urination, I passed a catheter, and only two or three drachms of urine came away. The patient sailed for Havana on Sept. 5th, in better condition than he had been for a year at least, promising to empty his bladder twice daily, and to make an irrigation with the biborate solution, and in case the urine should become alkaline, to use acetate of lead, as the principal means of preventing the recurrence of phosphatic calculi. Once a week he is to introduce his No. 15 steel sound, to prevent recontraction of the strictures.

COMMENTS ON THE CASE.

I have selected for comments a few from the many points of clinical interest which this case possesses.

The patient was known to have an ancient urethral stricture, which had contracted so slowly as to give rise to but slight dysury at the end of forty-two years, and when at last (in June, 1878,) retention of urine occurred, it was caused not by the stricture, but very distinctly by acute engorgement of the already hypertrophied prostate, resulting from the obstinate constipation of four days.

The two courses within a year of continuous dilatation had the effect of making the strictures worse, more resilient, though a certain amount of dilatation was maintained by frequent catheterism. Nevertheless, in the end of July I found it impossible to dilate them beyond No. 11 (English scale). This, with the great sensitiveness of the canal, rendered ordinary lithotripsy impracticable. It does not appear that cystitis existed prior to June, 1878; this complication was provoked by the presence of the catheter, which was retained three days, and from that time date the vesical symptoms which became so distressing in 1879.

I have every reason to think that the age of the stones which I crushed in August, 1879, was thirteen months, and firmly believe that their nuclei were the concretions which fell from the retained catheter at the moment of its withdrawal. But it is known that such phosphatic calculi grow rapidly, and it might be asked whether in a year's time they would not have attained a greater size? Without intervention, most decidedly yes; they would have been each at least one inch in diameter but for the fact that the urine was drawn off and the bladder for a long time irrigated every day, and occasionally too with a solu-

tion of acetate of lead, than which there is no better reagent for the disintegration of phosphatic calculi. This, it seems to me, is a sufficient explanation of the diminutive size of the stones.

Two symptoms of stone were wanting in this case, frequent hæmaturias, and pain while riding in a carriage; but these symptoms are often absent in the aged. Two operations were indicated: internal urethrotomy and lithotripsy. Thinking that lithotripsy would be impracticable without the urethrotomy, principally on account of the great urethral irritability, I decided to combine the two operations, and, with the aid of an anæsthetic and of aspiration, hoped to be able to do them both at a single sitting of not more than twenty minutes, but succeeded in extracting only a very small amount of detritus, and two additional sittings were necessary to complete the operation. These sittings were, however, very short and well borne, though it was difficult to seize the last fragments owing to the bladder being hypertrophied and columnar, and neither anæsthetic nor aspiration was used. The aspiration was here a failure, but I am sure that if I had persisted and made another introduction of the lithotribe I would have succeeded in removing the entire detritus; but I did not wish to prolong the sitting.

In another case I also failed to extract the detritus by aspiration, but it was because there existed a false route in the deep urethra which absolutely prevented the passage of any of the catheters belonging to Bigelow's aspirator. The lithotribe was, however, always introduced with ease and all the detritus evacuated through one of Tiemann's India-rubber catheters. Six sittings were required, and the patient made an excellent recovery without having suffered the slightest untoward symptom.

In a third case, on account of a small oxalate of lime calculus which had caused inordinate vesical and urethral irritation, I employed anæsthesia, and aspiration with Bigelow's bag, and at one short sitting completely relieved the bladder of the detritus made by several crushings of the hard concretion.

Long sittings are justifiable in many cases, but I would not be willing to resort to them in aged persons, such as the patient of seventy-nine years who is the subject of these remarks; in like cases I believe that several (three, four, or five) sessions of one or two minutes, without anæsthesia, are safer than a single long one of an hour or more, with the aid of an anæsthetic.

RAPID LITHOTRIPSY.

Among the requisites for the successful performance of lithotripsy is an ample urethra, or one that can be safely and easily rendered so, that the detritus may be expelled or extracted without inflicting serious injury to the canal. This operation was for a long time believed to be contra-indicated in cases of narrow or resilient strictures of the deep urethra; but since Heurteloup gave the first impulse to rapid lithotripsy and showed its applicability to such cases after dilatation or internal incision, a change of opinion has gradually come about, so that at present it may be considered good surgery, in case of obstinate stricture complicating a calculous affection, to make divulsion or internal urethrotomy, and at the same sitting to introduce a lithotribe, to crush the stone, and forthwith to extract all the detritus or the greater part of it, without molesting the wounded urethra by gravelly matter or by urine.

I beg leave to take this opportunity to state a few facts bearing upon the history of rapid lithotripsy, and also of the aspiration of detritus from the bladder, as they are now both attracting the attention of lithotriptists. In tracing back the history of the sundry methods of lithotripsy carried out as they were at first by ponderous engines—so to speak—with drills, saws, scrapers, and many other devices to reduce vesical stones to dust and small fragments, at a time, too, when anæsthetics were not used, it has seemed to me marvellous that this operation should have so formidably rivalled lithotomy, and should be what it is, and no longer militant. The truce between the two ended in its becoming firmly established as a surgical procedure of the greatest value, equal to lithotomy and often combined with it.

To bring lithotripsy to its present state has required the best thoughts and labors of many. No one man has accomplished the task. Civiale, Amussat, Leroy, Brodie, Jacobsen, Heurteloup, Mercier, Fergusson, and others of the same period, have performed the bulk of the work, and have established the great principles by which we are now guided. Minor details, but no new principles, have since been given, and from time to time modifications and improvements of existing instruments have been made by faithful students of lithotripsy. From an early period of the age of lithotripsy, nearly all of those surgeons above named began their endeavors to simplify the operation and the instruments necessary for its execution, and to reduce it to one sitting. Prominent among these men was Heurteloup who, having recognized that angular fragments made by his percussor "often caused grave accidents, wished to make it possible to extract them without danger." He experimented to that end for a number of years with a spoon lithotribe, which he had invented in 1832, and published in 1846 the result of his labors in a work bearing the title of "Lithotripsie sans fragments, au moyen de deux procédés de l'extraction immédiate ou de la pulvérisation immédiate des pierres vésicales par les voies naturelles." In his memoir of 1832, on the destruction of vesical stones by percussion, he says: "Lithotripsy is the art of crushing stones in the human bladder, in order that the powder and fragments may be expelled with the urine, or that their exit may be provoked by artificial means." To these artificial means he gave the name of lithocenosis, which signifies evacuation of the stone, from λιθος, stone, χενωσις, evacuation. In this same work he cites Meyrieux as having been the first to attempt to make an instrument capable of reducing a stone entirely to powder, but says that this was without success. He also speaks of Tanchou's unsuccessful effort in the same direction, and of that of Vidal and of Amussat. These instruments were designed to grind or rasp the stone from the surface. Our countryman, Dr. E. M. Moore, has for many years been laboring to perfect an instrument designed to reduce vesical stones of considerable size to powder by attacking the surface. The object of all these procedures was to reduce lithotripsy to one sitting, but of half an hour or even much more, and it is very evident that each of these inventors was aware that the bladder containing a stone was often capable of tolerating for a considerable time the presence of instruments; but this tolerance of instruments had been fully demonstrated from the very beginning of the life of lithotripsy. The first operation of Civiale (1824), gave evidence of the greatest tolerance of the bladder to instruments and to angular fragments. This operation required four sittings; two of twenty minutes each, one of thirty-five minutes, and a fourth short sitting whose precise time is not stated. After each of the first three sittings the patient had fever, but suffered

no other serious complication; the treatment having lasted one month. Civiale naively says that, this being his first trial, he had not determined the length that could be given to each sitting. He afterwards, in many cases, shortened the sittings to ten, eight, five, and later, even to three minutes.

Heurteloup labored hard, but in vain, to generalize his operation of lithocenosis. No such operations can, or ever will be, generalized, for the exceptional cases will too often be more numerous than those which come within the rule. However, this operation of Heurteloup's with the spoon lithotribe is too good to have been set aside. With slight modifications I believe it can now be applied to a large class of cases. This very ingenious surgeon says, in his work on lithotripsy without fragments, that he has succeeded at one sitting of less than twenty-five minutes in extracting the entire detritus of a stone thirteen centimetres in circumference, weighing twenty-eight grammes; and that though, to accomplish this, he was obliged to introduce the instrument many times, the patient bore the operation well. He further says that larger stones have required two such sittings and sometimes more. In the work in question, he gives a summary of one hundred and twenty-four cases of stone treated by rapid lithotripsy with immediate extraction of the detritus, and I here reproduce the figures. Of these 124 patients, 69 required one sitting; 28 two sittings; 17 three sittings; 5, four sittings; 4, five sittings; and 1 six sittings.

With the spoon lithotribe, and with the aid of an anæsthetic, I believe it possible, in half an hour, to extract the greater part, if not the whole, of the detritus of a calculus one inch in mean diameter. Very recently I felt justified in trying what I could do with a flat-bladed instrument, as I had no spoon lithotribe. Accordingly, on the 3d of October, 1879, I operated, somewhat after Heurteloup's plan, upon a patient sixty-one years of age, and here give the result. The man had, for two years, been under treatment for cystitis and was finally brought to me by a student of medicine. In ten minutes, after five introductions of the flat-bladed lithotribe, I had extracted thirty-two grains of the detritus of a stone five-eighths of an inch broad, half an inch thick, and one inch long. No anæsthetic was used, and the operation was well borne. The patient, who before had always been able to empty his bladder, did not suffer a single bad symptom, except that the sitting of ten minutes had caused enough shock to the bladder, and so disturbed its innervation, as to give rise to temporary paralysis of its muscular coat. I had foreseen this, and directed that he be catheterized at regular intervals. A few hours after the operation he passed a couple of ounces of urine, but this was evidently by the aid of his abdominal muscles and not by vesical contraction. The urine was drawn off four times each twenty-four hours. At the end of the third day he could urinate better, but was not able to empty his bladder. On the fifth day he emptied the bladder spontaneously. On the seventh day I crushed a remaining fragment three-eighths of an inch in diameter. He had passed, partly through the catheter, partly spontaneously, twenty-five grains of well pulverized detritus, and the detritus resulting from the last fragment weighed six grains. The total amount of detritus obtained was sixty-three grains.

I have known sittings of two minutes, in elderly men, to produce this paralysis, and now make it a rule to catheterize such patients every few hours after each sitting, even if they soon urinate spontaneously, and do this to prevent over-distention of the bladder, which is so apt to cause atony. This precaution should always be taken after prolonged sittings, especially when aspiration of the fragments has been made; for this must surely cause more shock than simple lithotripsy.

ASPIRATION OF GRAVELLY MATTER FROM THE BLADDER, AND OF DETRITUS AFTER LITHOTRIPSY.

Repeated introductions of the scoop lithotribe which was brought out full of detritus were the only means that Heurteloup employed in his operation of lithocenosis; he says nothing of aspiration, though Cornay, of Rochefort, had in 1845 published his essay, "De la lithérétie ou extraction des concrétions urinaires," in which are figured several aspirators and large catheters, straight and curved, some of them open at the vesical extremity, some with lateral eyes, others with a single large eye on the convex or on the concave portion of the curved instruments, always within a fourth of an inch of the extremity. Some of these catheters are similar to those at present in use for the aspiration of detritus after lithotripsy. Cornay attempted to apply his methods of aspiration to lithotripsy, but was not successful. It might be urged that aspiration as applied to the extraction of small vesical concretions was known in Europe more than a hundred years ago, that Sanctorius used a syringe for making aspiration of the contents of the bladder, that aspiration of vesical calculi was centuries ago employed by the Egyptians and Arabs; nevertheless, the man who really deserves the credit for suggesting its use in combination with lithotripsy is Joseph Emile Cornay of Rochefort. One year after Cornay's publication, Sir Phillip Crampton's aspirating bottle for extracting calculous detritus became known. Later, Mercier, of Paris, used for the same purpose an India-rubber balloon, with thick walls, at one end of which is a short glass cylinder, the recipient for calculous detritus, and at the other the necessary fittings for the distal end of a large catheter. I have in my possession the original instrument made more than twenty years ago by Charrière. This elastic balloon is described and figured by Mercier in his work, "Traitement préservatif et curatif des sédiments de la gravelle, de la pierre," etc., Paris, 1872, p. 373. After Mercier came Clover, whose apparatus was modified by Robert & Colin, and after Clover, Bigelow of Boston, who has given us an excellent aspirating elastic bag or balloon, which is constructed on a plan similar to that of Mercier. With Bigelow's apparatus more has been accomplished than with any of the others.

For the evacuation of calculous detritus Dr. Bigelow seems to prefer straight catheters. Rectilinear catheterism here, without doubt, has its advantages, but it is, in many instances, very objectionable, and the Doctor tacitly acknowledges this by also employing curved catheters, whose incurvation is not, however well adapted to certain cases complicated with urethro-vesical valvules. The eye in these curved instruments is near the point, so that the detritus has to follow the curve, a defect which, for aspiration, renders them inferior to the straight tubes. On this account I have had catheters made by Tiemann & Co. which combine Mercier's rectangular catheter with Bigelow's large-eyed straight tube. In other words, I have added the beak of Mercier's catheter, slightly modified, to the straight tube of Bigelow, and think I have thus obtained a better instrument than either. The form of an ordinary lithotribe's beak may be given to the vesical end of this catheter.

These various contrivances have caused surgeons to

think more about the possibilities of lithotripsy, and have induced many to attempt the operation with their aid in cases where, without them, lithotripsy would have been absolutely contra-indicated. While I think very well of the combination of aspiration with lithotripsy, with the improved aspirators, I believe that it can never supersede simple lithotripsy, lithotomy, or perineal lithotrity, which three operations will be in use as long as men have stones in their bladders. The indications and contra-indications of these various operations seem to me perfectly clear.

A few more words there are which I feel bound to say before dismissing this subject. *The combination of aspiration with lithotripsy is a more difficult and delicate operation than simple lithotripsy, and should never be undertaken except by a good lithotriptist. It is as safe in good hands as it is dangerous when improperly performed. Any surgeon who is not already an experienced lithotriptist and undertakes this operation is guilty of a great wrong.* I have uttered these expressions because some surgeons seem to have thought that anæsthesia and aspiration made the operation easy, and the consequence has been that death has resulted soon after the operation, and from the operation badly done.

THE TREATMENT OF HERNIA BY INJECTION.

By JOSEPH H. WARREN, M.D.,

BOSTON, MASS.

This article was prepared for the Suffolk District Medical Society, but, owing to a lack of time, was not read at the last meeting on September 27th. As a month would elapse before another meeting, and as much interest is shown by the profession, I send this paper, imperfect as it is, and without those comments which would have accompanied the reading, having prepared another paper for the next meeting. My experimental, and as yet incomplete instrument was shown at the meeting, and caused no little interest.

The new and perfected instrument will be made by George Tiemann & Co., of New York City, and will be engraved, and with a minute description be furnished for publication as soon as completed. Allow me to add that if the profession will be a little indulgent, I will give all the information that I can concerning the operation as soon as possible.

I desire to correct the statement in THE MEDICAL RECORD of July 26th, in that rather laudatory article of myself, which says that I induced Dr. Heaton to give his operation to the world during his last illness. It should say that I advised and urged him to do so a number of years before the publication of the work on hernia. That which I have done in the matter will be more highly appreciated when it is known that a committee of men, whom the profession highly honors, sent by the American Medical Association a number of years ago, failed to induce Dr. Heaton to make known his method of operation.

I began operating for the radical cure of rupture soon after the death of Dr. Heaton.

The first patient was Mr. G——, aged 23, with double direct inguinal hernia. I was assisted by Dr. Wm. Emery, of Boston, who was his physician at the time of the operation. The hernial ring on the right side had become dilated to the extent of about one and a quarter inches in diameter by the protrusion of the hernial sac and intestine. The hernia on this side had existed for over two years, and the tumor formed by the hernial protrusion was about the size of a goose-egg. The hernia upon the left side had existed for about a year and a half, was about one inch in diameter while the hernial protrusion was about one-half the size of the one on the right side. These hernia being at times very painful, and almost impossible to be retained with the ordinary truss during the patient's daily labor, it was thought best to perform the Heatonian operation for hernia, which was done in the following manner. With the old instrument of Dr. Heaton, I injected on the right side about twenty minims of the fluid extract of quercus alba, which had been evaporated to the consistency of glycerine, and united with an eighth of a grain of morphine; on the left side about fifteen drops were injected.

In about six hours after the injection the patient began to grow feverish and restless; pulse running to about ninety, temperature to about one hundred. This condition continued for about three days, when it began gradually to subside. The urine was passed naturally, and a natural passage of the bowels took place on the sixth day. There was some swelling and redness over the hernial ring, extending up over the abdomen obliquely to the crest of the ilium. Dr. Emery attended the case, I seeing the patient occasionally. He administered one-eighth of a grain of morphine at bedtime to secure rest, and cold water was constantly applied over the seat of operation by means of a compress. A rapid and successful recovery took place, with a perfect cure of the ruptures, and on the twenty-third day of July the patient came to my office, when a temporary truss was ordered. This he was to wear for several months until we should conclude that the tissues had gained sufficient strength for him to dispense with it.

It will be seen from the nature of the case that I here felt obliged to use a much larger quantity of the extract of quercus alba than is recommended by the late Dr. Heaton in his work on the cure of rupture. The instrument too, with which he performed his operations, I found very much worn from constant use in his practice for the last thirty years, and very unfit for the purpose for which it was designed, since great manipulation was required to exclude the air from the barrel of the syringe, because of the loose and worn packing. The needle was pierced for the exit of the fluid with two small holes about one-fourth of an inch from its point. In order, therefore, to apply the mixture thoroughly to all the circumference of the ring, internal and external, it was necessary to twist the needle around during the injection. The fact is, however, that this method of operating caused a very unequal distribution of the fluids upon the parts, and much pain and needless suffering to the patient.

I examined also the needle devised by Dr. Davenport, and found his likewise had but two openings, with what I consider a very dangerous point, it being lancet-shaped, and liable to pierce the pubic and branches of the epigastric arteries, together with other vessels. It thus had not even the merits of Dr. Heaton's old needle, which was in shape not unlike a brad-awl at its point, and which, because not very sharp, easily glanced by any vessels it might meet in its passage through the integuments.

Accordingly, in my next case I had a needle made for me and pierced with four holes, the first two much nearer the point of the needle than in the old instrument. This new needle, I found, worked very much better, distributing the fluid more equally upon the internal and external ring, together with less turning

of the needle in the integuments, and consequently much less pain in the operation. With this needle, as I had improved it, I continued to perform several operations with much better success than with the needle devised by Dr. Heaton. Still, when I came to operate for a very large double inguinal hernia, one direct and the other oblique, the distance through the integuments being greatly increased by adipose deposit, I found there was still a great amount of pain which I thought unnecessary, produced by the instrument—since, being rather blunt at the point, it therefore met with considerable resistance in penetration.

When I came to make a second injection, which was necessary on the left side of this hernia, since the first injection did not succeed in causing the adventitious tissue to be thrown out so as to fully close the ring, I found much greater resistance in the integuments than before, they having become more firmly consolidated from the effect of the oak bark. The operation thus caused considerable pain, although no more than most patients could endure without etherization.

I next turned my attention to find some means of penetrating the tissue into the hernial ring with less pain, and for this purpose devised a new instrument which I now take pleasure in showing you. It consists, as will be seen, of a glass barrel inclosed in silver, through whose fenestrated openings the fluid can be seen and the presence of air-bubbles detected. The number of minims is also plainly indicated on the engraved glass barrel, so that we can measure the exact number of drops injected in any given operation. It has two semicircular handles on the lower end for holding the instrument conveniently and firm during the operation.

If we next examine the needle or beak, we shall see that it is hollow, about one and three-quarter inches long, and that throughout its whole length it partakes of a spiral twist, so that it will, of necessity, revolve as it enters the tissue, and by such revolving penetrate the skin and other integuments much more readily than is possible with a straight, bluntly-pointed instrument. We can readily illustrate this by passing the improved needle through a piece of parchment, and then by performing a similar operation with a straight needle pointed like a brad-awl.

The ease with which the first needle penetrates compared with the resistance which the other meets, proves conclusively that the former instrument must do its work with much less pain than the latter. The secret of this is, that with the straight needle we get constant friction and bearing on the entire length of the needle during the whole operation, whereas with the spiral form of the needle the friction and pressure are on but a small portion of the body of the instrument at any one time, and are thus reduced to the minimum.

Then, again, it is to be observed that the needle, instead of being round, is of a flat, oval shape, and makes a wound of the same form. In this way there is a more ready coaptation of the wounded tissue than would be possible with a round puncture. The needle is pierced with ten openings upon its sides, which causes a more free and equal distribution of the fluid ejected. The difference between this and the hypodermic needle which I shall speak of later on, is that instead of the direct terminal flow of the fluid, we have it spread at right angles to the needle, and therefore gain a better distribution upon the hernial rings, internal and external, at the same time avoiding the application of the fluid to the peritoneum, which we wish to irritate as little as possible.

With the hypodermic syringe, however, the principal flow of the fluid would be upon the peritoneum, and not upon the parts intended to receive it, thus making the operation, in view of the small amount of fluid recommended, of limited and doubtful success. If we examine the attachment of this needle to the barrel of the syringe, we shall see, moreover, that the needle is held in place by a coupling and collar which allows it to revolve while on its passage through the integuments. The head of the needle within this collar is rounded something like the smaller end of an egg and on its bearings is in contact with a diamond or other hard stone which is concaved to fit accurately the convexity of the needle. In this way we avoid almost entirely the friction which would, if metal met metal, prevent the free revolution of the needle; and at the same time we render the joint sufficiently tight to prevent all leakage of the fluid as it passes from the chamber of the instrument into the needle. A bulbar opening at lower part of this chamber, opening and closing by simply pressing on a lever, allows as much or little fluid to escape, and just when you wish it to, at any stage of the operation.

In addition to this it should be stated that in my method of performing the operation, instead of applying the fluid to the internal hernial ring first, as in Dr. Heaton's operation, I reverse the process and do this last; for as soon as my needle has penetrated the tissues, I immediately begin to eject the fluid upon the external ring and its surrounding parts, and so continue until I reach the internal ring. After sufficiently bathing the latter with the fluid I withdraw the instrument, still continuing to eject.

In performing in this manner we complete the operation in one-half the time employed by Dr. Heaton, and, comparatively speaking, with an absence of pain. At the same time we entirely avoid the sweeping motion of the needle described in Dr. Heaton's treatise, a process which I consider very much endangers the wounding or irritation of the muscular fibres and blood-vessels composing the rings.

Furthermore, the tissues being less likely to be serrated or irritated with my needle than with his, there is much less tendency to the formation of abscesses from such irritation than in the old operation.

I find, too, that the extract of oak bark employed by Dr. Heaton is not well held in solution, being liable to much sediment, the powder forming granulations which do not readily pass through the syringe, and which, if ejected, form a considerable irritation, and therefore a great tendency to abscesses. A better and safer formula is to evaporate the fluid extract of oak to about the consistency of glycerine, add sufficient absolute alcohol to reduce it about one-half, and then add about one-half a drachm of sulphuric ether to the half ounce of fluid. To this mixture I also add about two grains of sulphate of morphia, thus making one of the most perfect injecting fluids that I have thus far been able by numerous experiments to devise, combining the astringent effect of Dr. Heaton's extract of quercus alba, together with that of the German method of using alcohol alone, and producing the most favorable results in this operation of injecting the hernial rings for the radical cure.

The use of an ordinary hypodermic syringe would be, I consider, an operation attended with much danger, not only from the liability of penetrating a portion of the pubic and epigastric arteries, but also because the instrument would be a poor and feeble one for thorough and successful operations on hernia, since it is well known that the needle has to act in

some degree as a staff and guide in slightly lifting up, as it were, the integuments, which are often thick and supplemented by excessive adipose tissue.

Although it is high time that this operation should be better understood, still a thorough comprehension will neither lessen our great esteem for the more formal surgical operation for strangulated hernia, as now performed by all modern surgeons, nor will it be less essential for all practical surgeons thoroughly to understand this latter operation.

So long, however, as thousands upon thousands are ruptured with reducible herniæ, which have heretofore required all the ingenuity of mechanical art to support and retain within the abdominal cavity by bands of iron and steel, elastic fabrics, bone and ivory, thereby endangering life by their liability to become strangulated, and often abruptly terminating existence by the strangulated intestines becoming spatulous and gangrenous, before relief can be obtained by the surgeon's knife or the more gentle operation of taxis; so long as this is the case, the discovery of a permanent cure seems a most wonderful blessing for mankind.

At a future time I hope to be able to describe more in detail the method of radical cure, as I perform it, and illustrate it by such cases worthy of peculiar mention as may come under my observation, as well as the number I have operated on.

Should I ever be disappointed in the success of this operation for the relief and cure of rupture, I should be the first to acknowledge it.

Allow me to add, I know of no operation in the annals of surgery that requires a more delicate touch, and finer manipulation in all of its details, or a more steady and firmer hand in the operator, not even excepting the fine and graceful operation of cataract on the eye. What operation demands more care than passing a sharp-pointed instrument through the living tissue into the hernial ring, among numerous tissues, vessels, nerves, and surrounded by the peritoneal membrane? I know of no operation more simple and painless, or that brings forth such rich results in relief, comfort, and almost certain cure in almost every case when performed by a skilful operator, than this one for the radical cure of rupture. But when awkwardly and indifferently performed by one deficient in the anatomical and surgical knowledge proper for the undertaking of the operation, I know of no operation so fraught with danger to human life, and one so barren in results, and therefore disappointing to both physician and patient.

Finally, I wish to add a word of caution and advice to those who may have to do with this operation. Should the patient get up too soon after being operated upon, or make any undue exercise or exertions before the parts have acquired sufficient union, consolidation, and firmness, they will very readily become separated, and of course let the hernia escape again; or, should there be union in the parts sufficient even to retain the hernia within the abdominal rings, yet a secondary swelling may again appear in the track of the first swelling and inflammation which usually attends the primary operation.

This secondary swelling, more particularly if it follows after we have made two or three injections, which are often found necessary to fully close the hernial rings, will appear in any form of inguinal hernia very prominent over the seat of the injected parts, not unlike an inverted common saucer in size and appearance, extending along the oblique to the crest of the ilium, and will assume a dark maroon color. If we now examine it, it will appear to the touch as though fluid or pus were present.

This is not, however, the case; but it is only a slight effusion and exudation of plasmatic serum, together with some mingling with the discoloration produced by the extract of oak injected. If now we cut freely down, exposing these parts to view, we see that the tannin in the mixture injected has united with the exudation, causing the appearance of the tannate of albumen. This will show itself by the striated, shroudy, and granulated substance resembling dry blood when moistened again. If we should now constantly apply compresses of cold water and allow the patient to remain in bed, on his back, this redness and swelling will generally, in the course of two weeks, entirely disappear.

Such cases, when fully over all inflammatory attacks, will be found to be stronger in the hernial rings than those which had only the primary inflammation following the injection, because this secondary inflammation more fully unites the parts inflamed by thickening an additional deposit of organized lymph over the seat of the operation. But we should not be misled by this inflammation and proceed at once to open this large swelling, as we thereby very greatly endanger the result of the primary operation for the relief of the rupture, and put the patient's life in great and needless danger.

We should therefore patiently wait, and after a sufficient time, it will, if it be an abscess, converge, in the course of ten or twelve days, to about the size of a Sickel pear, and something like it in shape and appearance. Then, and not until then, we should proceed to open the swelling, and even then we should first be able to feel the fluctuation of the pus through the thinned walls of the abscess. And if still in doubt, from our diagnosis, whether it be an abscess or not, we should, before opening, pass into the swelling one of the finest needles of the aspirator.

Cold water is the best dressing, and all through the treatment, from the very beginning to the perfect recovery to the normal condition of the inflamed parts, neither lotions nor ointments are required.

Now, sometimes when we discharge a patient after this operation, he is commended to wear a truss or bandage, not to lift or jump either from the cars or any other height, and to be very careful about any violent exercise whatever; all of which he promises to do. But the person so dismissed, cured to all appearances, will possibly feel so mighty and proud in his recovery that, although he may for a time follow the instructions, he will some fine morning cough, perhaps, and force the abdominal parts down in order to see how strong he is in this region; or taking a peculiar delight now in examining what previous to the operation was so repulsive, he will try to lift a heavy weight, pull a hand-cart if he takes a notion, or see how high he can reach.

From these self-examinations he may feel satisfied that he is perfectly cured, and yet, in the very acts in the time of his unusual exertions, he has started and opened the adhesions formed in the hernial ring, and in the end his state will be nearly as bad as before; for upon the least yielding of these new adhesions the peritoneum and intestines will insinuate themselves through the most minute opening, and act like a wedge in forcing the parts asunder.

Had he been more cautious in following explicit directions, and waited a year or two before making violent exertions, he would never have had to bear a return of his rupture. Should a return of his hernia unfortunately take place, another operation and injec-

tion will generally effect even a firmer closing of the rings than the first operation did, because of a decidedly greater condensation and stronger cohesion of the parts treated. But I am assured that he never again, in his joy, will experiment to see how perfectly he is cured.

Sometimes, after the hernial rings are closed, as Dr. Heaton says in his work, and as I myself have seen, portions of the hernial sac, particularly in cases of long standing, are fastened down in the folds of the rings and surrounding parts, after the operation for radical cure has been successfully applied, and this may lead the patient—nay, even the physician, to think that the hernia has not been in reality cured. If, however, as I have already said, the rupture remains closed for a year or so, the cure may be looked upon as certainly a permanent one.

Suppose, however, that this hernial sac can be passed readily through the hernial rings; then a very slight amount of the injection will close the parts efficiently, leaving the patient much strengthened by the operation.

I wish to call attention again, and especially to the fact that although this operation is generally successful upon its first performance, yet it has sometimes to be repeated several times before we get a full and strong occlusion of the rings, particularly in herniæ of large and long standing. If, after we have once operated and have succeeded in partly closing the opening, we find we have not done it so as fully to effect a permanent cure, we must, after the lapse of eight or ten days, repeat the operation, and continue so to do until we have entirely closed the parts beyond danger of opening. Thus, by perseverance, and thus only, we shall in the end be delighted and rewarded by the perfect cure of almost every case we undertake.

Even after the patient has returned to his usual occupations, and has seemed, both to himself and the operator, cured, upon the slightest indication of the return of his troubles he should at once present himself for examination, and, if necessary, another operation. Indeed, not only in this operation, but in all others in surgery that may be presented to me for treatment, I could not positively, and under all circumstances, warrant a permanent cure any more than if I performed ovariotomy or the amputation of a limb, for it is well known that from some unforeseen circumstance in the operation, or in the conduct of the patient submitted, success may not always and with certainty follow a good and legitimate attempt at relief.

THREE CASES OF GLAUCOMA.

By DAVID WEBSTER, M.D.,

NEW YORK.

Wells says: "The persons attacked by glaucoma are mostly beyond forty-five or fifty years of age."

Carter says: "The patient is commonly past the middle period of life."

Schweigger says: "It occurs very rarely before the thirtieth year."

Charles Higgens says: "It, as a rule, attacks persons beyond middle age."

Spencer Watson says: "There are recorded cases of glaucoma occurring even in infancy." But out of forty-six cases reported by him the youngest patient with uncomplicated glaucoma was twenty-eight years of age.

The extreme rarity, then, of glaucoma in children is my excuse for publishing Case I. It is the only case of uncomplicated glaucoma in childhood, or even in youth, that I have ever met with.

Judging from what the books say, cases of hydrophthalmus, or kerato-globus, with glaucoma, occurring in the young, are not quite so uncommon.

In the cases that I have seen, however, there has usually been so much opacity of the cornea as to obscure the fundus, prevent an inspection of the optic disc, and reduce the vision to little more than perception of light. In such cases, of course, the glaucomatous condition can be determined only by the hardness of the eyeball, and, perhaps, the dilatation of the pupil.

In the case here reported the cupping of the disk could be so distinctly seen that its depth was measured. The amount of vision retained by the eye ($\frac{20}{80}$) was also considerable.

Case III. is the only case I have seen where strychnine injections improved the sight of an eye affected with glaucoma, and I have seen the remedy tried in several cases. I still have my doubts whether the improvement in vision was not due as much to the cutting off of the patient's tobacco and beer, and thus avoiding their poisonous influence upon his nervous system, as to any curative effect it exercised upon the glaucoma.

Case I.—*Glaucoma Simplex in a Child Ten Years of Age.*

Ida S——, æt. 10, was brought by her father to consult Dr. C. R. Agnew on April 5, 1876. The following history was noted:

The child saw perfectly well up to four months ago, and could read ordinary print up to one month ago, since which she became rapidly blind in both eyes.

The first thing that called attention to her eyes was that on attempting to fix she looked cross-eyed. Her parents, on observing this deviation of her optical axes, took her to their family physician, who gave her medicine and ordered a solution of atropine to be dropped into her eyes daily. This treatment was continued for about two weeks.

She has never complained of pain in or about her eyes, and has not suffered from headaches, but has lately complained of dizziness.

No eye-drops have been used in either eye for more than three weeks, and yet both pupils are widely dilated.

The tension is very much increased in both eyes, but more markedly so in the left.

Neither eye retains preception of light, the patient being unable to appreciate the light from an argand burner when concentrated upon the pupil by means of a two-inch lens.

Ophthalmoscopic examination shows both eyes to be emmetropic. The media are perfectly transparent. The right optic disk is excavated to a depth of 1.8 mm. ($-\frac{1}{6}$); the left, 2.14 mm. ($-\frac{1}{6}$). There is a narrow ring of choroidal atrophy around the margin of the excavation.

There is marked pulsation of the retinal arteries in both eyes. In the left the arteries seem to spring forward from the bottom of the cup with each beat of the heart.

A discouraging prognosis was given, and iridectomy upon both eyes was advised, but declined.

Case II.—*Glaucoma with Kerato-globus.*

Mary L——, æt. 10, came under observation Feb. 27, 1878. Her parents stated that she was born with the right eye larger than the left, but in so far as they

were able to judge, she saw as well with it as with the left until she was eight years of age. The child says she never could see to read with the right eye. The mother has lately observed frequent involuntary rolling of both eyes, with other symptoms of chorea, as twitching of the face and jerking up of the shoulders.

The right eye is from one-third to one-fourth larger than the left, and the sclera is so thinned that the dark choroid shines through it, giving the whole "white of the eye" a bluish appearance. The cornea seems about a third larger than the cornea of the other eye, and the anterior chamber correspondingly deep. Tension normal.

R. V. = $\frac{2}{70}$ without a glass, but raised to $\frac{2}{20}$ with $\frac{1}{12}$. L. V. = $\frac{2}{70}$; Hm. $\frac{1}{12}$.

Ophthalmoscopic examination of the buphthalmic eye shows some diffuse opacity of the cornea. The fundus is best seen through $-\frac{1}{18}$, and is streaked and mottled with pigment. There is cupping of the entire optic disc to a depth of about 0.91 mm. ($-\frac{1}{3}$). There is no visible pulsation of the retinal vessels, and no very marked ring of atrophy about the disk.

The field of vision is contracted to about half its normal size, and rather more upon the nasal side than in other directions.

Non-interference was advised.

CASE III.—*Glaucoma Simplex, with old Corneal Opacities of both Eyes, benefited by Strychnine Injections.*

A. K——, æt. 41, German, lager bier saloon-keeper, came to see me at the Manhattan Eye and Ear Hospital on March 19, 1877. He said that his eyesight had been very poor for many years, but had lately been growing much worse. He has had no pain, photopsiæ, or chromopsiæ. He has been in the habit, for years, of smoking and chewing tobacco, and of drinking lager bier excessively.

R. V. $\frac{20}{70}$, L. V. $\frac{20}{200}$; neither improved by glasses. Both visual fields concentrically contracted, left more so. Tension slightly increased in both eyes, and pupils of both eyes sluggish.

Examination with the ophthalmoscope and with lenses showed the existence, in both eyes, of such corneal opacities as usually follow phlyctenular keratitis, and complete excavation of both optic disks.

The depth of the cupping could not be accurately measured by reason of the corneal opacities, but all who examined the eyes agreed that the excavation was unquestionably glaucomatous.

Mr. K. was directed to stop the use of tobacco and bier, and was placed upon hypodermic injections of nitrate of strychnia, commencing with gr. $\frac{1}{10}$ and adding gr. $\frac{1}{120}$ to the dose daily.

April 10th.—R. V. $\frac{20}{50}$, L. V. $\frac{12}{200}$.

April 14th.—R. V. $\frac{1}{2}$, L. V. [illegible].

May 1st.—Mr. K.'s vision remains as at last date. He can read his German newspaper, and declines further treatment.

THE METRIC SYSTEM IN ENGLAND.—Dr. E. Seguin read an address on the subject of the metric system at the recent meeting of the British Medical Association in Cork. Subsequently, on motion of Mr. Ernest Hart, editor of the *British Medical Journal*, a committee was appointed to report on the means of introducing the metric system in medicine in Great Britain. Among the members of the committee are Dr. Lauder Brunton, Dr. Quain, and Mr. Hart.—*Medical and Surg. Reporter.*

Progress of Medical Science.

TREATMENT OF WHITE SWELLING BY INJECTIONS OF SULPHATE OF ZINC.—M. Léon Le Fort described to the *Société de Chirurgie* a new method of treating white swelling, which he had tried on a patient who had suffered from fungous disease of the knee-joint for four years. All the classical treatments had failed to give relief, and on May 12th, M. Le Fort injected into the cavity of the joint a ten per cent. solution of sulphate of zinc, one quarter alcohol being added. No inflammatory reaction followed the injection, with the exception of a slight amount of induration at the point of puncture. This was repeated once a week, but before injecting the caustic liquid, he always removed with the aspirator the pus contained in the joint. This pus never exceeded thirty grammes in quantity, and diminished gradually with each succeeding puncture. The patient is now in good condition, his knee has diminished in size, and it has become possible to move the articulation. The patient has not completely recovered, but as he is charmed with the progress already made and wishes to leave the hospital, M. Le Fort desired to present him before the adjournment of the society.—*Moniteur de la Policlinique*, August 17, 1879.

THE ACTION OF THE DIGESTIVE FERMENTS EMPLOYED IN THE TREATMENT OF DYSPEPSIA.—At a recent meeting of the *Académie de Médecine*, M. Vulpian laid before the society the results of his investigations into the action of pepsin, pancreatin, and diastase. The different preparations of pepsin were found to be of very variable strength, many of them so feeble as to be absolutely useless as remedial agents. The addition of alcohol to an acidified solution of pepsin or to natural gastric juice, retards digestion when the proportion of alcohol in the solution exceeds that of claret or burgundy wine. From this the conclusion is drawn that wines and elixirs of pepsin should not be used. Some of the elixirs examined contained but very small proportions of the principle, the rest having been precipitated by the alcohol during the manufacture. Pancreatin and diastase, when mixed with artificial or natural gastric juice, have not as energetic an action on starchy matters as when pure water is used for their solution. M. Mourrut, who continued the investigations under the direction of M. Vulpian, found that the effect of acid was to retard the action of diastase, and to destroy that of pancreatin. The effect of alcohol, he found, was to retard the action of all the ferments, an effect, perhaps, most marked in the case of pepsin.—*Gazette Médicale de Paris*, August 16, 1879.

LYMPHADENOMA OF THE TESTICLE.—The investigation of this subject is of recent date, Dr. Malassez, in 1874, having been the first to call attention to the distinction of this disease from sarcoma. Five cases have been collected by Drs. Monod and Terrillon, who had an opportunity of examining the specimen taken from the last. In their very interesting report on these cases they advance the following conclusions:

1. Lymphadenoma of the testicle is a tissue of new formation, having a structure similar to that of the lymphatic glands.

2. It constitutes an anatomically distinct variety of sarcocele, the diagnosis of which is not impossible during life.

3. It seems to confine itself to the gland itself, sparing the epididymis.

4. The whole gland is affected from the first. The lesions appear to begin in the intertubular tissue, and to attack secondarily the walls of the seminal tubes, which gradually disappear as the neoplasm increases.

5. Lymphadenoma of the testicle may affect, at the same time or successively, both testicles—a characteristic of this variety of neoplasm.

6. The infection of the general system is early and rapid. The disease is frequently found in the viscera, in the bones, and in the cutaneous and subcutaneous tissues at great distances from the original focus.

This character, like the preceding, is of great help in the diagnosis:

7. This systemic infection can exist for a comparatively long period, without inducing any appreciable cachexia.

8. Lymphadenoma of the testicle is not apparently accompanied by leukemia.

9. The prognosis is fatal, and up to this time surgical intervention has been of no avail.—*Archives Générales de Médecine*, July, 1879.

On the Therapeutic Uses of the Benzoate of Soda.—Buchholtz discovered that the benzoate of soda possesses in a high degree the power of preventing the development of bacteria in putrescible fluids. Brown found that a previous hypodermic injection of the drug will prevent, to a certain extent, the development of diphtheria from innoculation in an animal. Dr. Schüller, of Greifswald, used it as an antiseptic dressing, but did not find that it possessed any advantages over carbolic or salicylic acid. Given internally, however, he found it very beneficial in several cases of extensive phlegmonous processes in the hand and forearm, and of erysipelas, and in one case of diphtheritic inflammation of the bladder. In all of these cases the fever disappeared entirely, and the local symptoms improved, after from 10 to 20 grammes had been taken. The effect was particularly striking in a case of violent traumatic erysipelas with chill and high fever, in which 25 grammes were taken within 24 hours. The fever began to sink after a few doses had been administered. The remedy also proved useful in some cases of scrofulous articular affections with simultaneous catarrh of the pulmonary apices and persistent hectic. Schüller's formula of administration was: benzoate of soda, 10 grammes; syrup, 20 grammes; water, 200 grammes (℥ ijss.— ℥ v.— ℥ vjss.). Dose, a tablespoonful four or five times daily, when its use was continued for a long time, and every hour in acute febrile affections.

Prof. Klebs believes that the drug is absorbed very slowly by the intestines when fever is present, and hence recommends its direct injection into the blood. Experimentally it seems to be demonstrated that immense quantities can be injected into the blood without danger; as much as 5 grammes would have to be injected in the case of a man of ordinary size, to prevent the development of bacteria in the blood. The only danger to be feared would be paralysis of the heart, an effect which would be due to the soda rather than to the benzoic acid. Klebs suggests that this danger might be avoided by the use of the less soluble *benzoate of magnesia*. This salt may also be given internally in powder or pills in place of the benzoate of soda, when the latter causes nausea. The *benzoate of lithia* is said to be more soluble than the magnesia salt, and like it to have no action on the pneumogastric.

Letzerich gave the benzoate of soda in eight cases of severe diphtheria in children, and states that no other remedy has produced in his hands such rapid and lasting effects. The temperature usually fell in from 24 to 36 hours. Only one of the patients died—a badly nourished child, who had just recovered from an attack of croup. Besides the internal administration of the drug, it was employed locally by insufflation or gargles. Hoffman, of Berlin, treated 12 cases of diphtheria with the drug; all of them recovered. He believes that the medicine essentially shortened the course of the disease. On the other hand, Widerhofer, of Vienna, treated 17 cases of diphtheria in children with the benzoate of soda, and lost eight of the patients. He does not regard it as a reliable remedy in this disease.

Letzerich also recommends the benzoate of soda in gastric catarrh, particularly in infants, and in this he is seconded by Kapuscinski, of Posen, who administered it in 63 cases of gastro-intestinal catarrh in children under five years of age, with the most striking results. The vomiting was controlled very rapidly, but the drug had no power over the diarrhœa, which yielded, however, to bismuth and soda after the vomiting ceased. He gave one or two teaspoonfuls of a 5 per cent. solution of the salt every two hours. Finally the benzoate of soda has been given with good effects in two cases of morbus Brightii, one of which had already presented uræmic symptoms. Five grammes of the salt were given three times a day, and under this treatment the albumen in the urine rapidly diminished, and soon only traces of it were left.—*Allg. med. Cent.-Zeit.*, July, 16, 1879; *Deutsche med. Wochen.*, August 9, 1879, and *Schmidt's Jahrbücher*, 1879, No. 5.

Local Treatment of Palmar Syphilides.—Those syphilitic affections of the hand, described as *psoriasis palmaris*, are remarkable for their great rebelliousness to internal treatment. It is necessary that local applications should be combined with the internal administration of remedies. These should consist in frictions with soft-soap, and enveloping the hands in flannels soaked in the same remedy. Under this treatment the epidermis will soften and peel off, and the affected parts may then be painted with tinct. iodine, or touched with nitrate of silver, when the lesions will quickly disappear.—*Journal de Médecine*, August, 1879.

Treatment of the Ephelides of Pregnancy by Chrysophanic Acid.—Chrysophanic acid has been used with considerable success by Neumann and Braun in those pigmentary patches which appear on the skin during pregnancy. The acid has an irritant action on the skin similar to that of nitrate of silver and other topical remedies, under the influence of which the epithelial and subepithelial layers are destroyed, and the pigmentation disappears and does not return. The irritation excited should only be sufficient to cause the disappearance of the spots, but it is sometimes difficult to limit it to this, owing to the very variable susceptibility of the skin to the action of the acid. The parts should be well washed with soap and water, and the following ointment applied without friction: ℞.—Acid chrysophanic, 1 grm.; lard, 40 grms. The salve is spread on a rag and applied to the affected part, care being taken not to allow it to spread further than the discolored spot. Ordinarily, friction may be used three or four times at two days' interval, but it is necessary to watch the skin, and if much swelling appear the frictions should be stopped. The application of the ointment is followed by swelling and moderate burning, the parts become red, and then black, then desquamation takes place and the spots disappear.—*Journal de Médecine*, August, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 18, 1879.

A NEW MALARIAL GERM.

NEXT to the North Pole it is probable that specific germs have been the most prominent object of recent scientific inquiry. And it has happened that, since the malarial germ is the most common and the least noxious of these hypothetical organisms, there have been especially numerous efforts to capture it. We have the pleasure of chronicling the last, and we believe the seventh announcement of its authentic discovery. It has been found amongst the Pontine marshes. It was here that Balestra several years ago found a species of alga, which appeared to be the poison. Here, also, M. Lanzi and G. Terrigi, in 1875, found certain dark-colored granules developing in decomposing slime, and identical, as it seemed, with the melanine granules in malarial spleens and livers.

The present researches have been made by Professor Klebs and Signor Tommasi-Crudeli, and have been conducted with a scientific precision which makes their claims of success worthy of more attention, perhaps, than those of any of their predecessors. Their method of procedure was as follows:

They gathered from the earth, air, and water of malarious regions infectious solutions, which they proved to be malarial by the peculiar paroxysmal temperature waves and the enlarged spleens which were produced when portions were injected into the subcutaneous cellular tissue of rabbits. They then separated the solid parts of the infecting solutions from the liquid by filtration, generally through plaster-of-Paris. In this way they discovered that the poison was a solid, for the filtrate scarcely ever produced any rise of temperature, while the residue always had the specific effect.

The organisms in this residue, which are thought by the observers to be the true causes of malaria, are minute spores, .95 micromillimetres in diameter, oval in shape, and belong to the genus *bacillus*. The name given them is *bacillus malaria*. They do not develop in water—indeed, a large quantity renders them inactive—but require free oxygen and substances rich in nitrogen. In the body they develop to the greatest extent in the spleen and medulla, a fact noted as important, since it is here that the most characteristic anatomical changes are found in those suffering from grave malarious fevers. The organism multiplies by transverse fission, thus converting itself into a chain. In the interior of the links spores appear and eventually fill it.

A writer in *The Practitioner*, assuming that either the *bacillus*, ar some other vegetable organism, is the cause of malaria, applies to it the observations of Lussana, and thus makes a very complete and, so to speak, rotund hypothesis. Lussana found that some poisons, particularly curare, when taken into the stomach, do not at once enter the general circulation, but pass to the liver, are excreted with the bile, and absorbed by the intestinal vessels again. If the poison is small in amount it may continue this round indefinitely. Now, the *bacillus malariæ*, it is thought, lodges in the mouth and pharynx, is swallowed with the saliva, and taken into the portal circulation. If the quantity is great some pass into the general circulation, produce alterations in the quality of the blood, which affect the nerve-centres and cause the ague fit. A few continue in the portal circulation, but soon multiply there and discharge their surplus into the general blood current again. Thus the morbid process goes on.

We have presented these observations and theories somewhat at length, because they have been made with great care, and are endorsed by men whose scientific attainments are unquestionable. The experimenters appear confident that they have demonstrated their point, but the profession will hardly accept their conclusions without a good deal more evidence. We have had the same claims from other observers, and made with equal confidence, though not, it must be confessed, supported by an equal array of facts. But the *bacillus malariæ* must be found in some other place than the Pontine Marshes, and we wish to know, also, how it manages to exist on the slopes of the Andes, 6,000 feet or more above the sea, with no swamps anywhere about.

It will be a great triumph for the believers in the germ theory if the observations of Klebs and Tommasi-Crudeli are confirmed, and it will be an advantage to science, in any event, that further experiments, conducted in the same precise methods, are likely to be inaugurated.

THE AMERICAN GYNECOLOGICAL SOCIETY.

WE furnish our readers, in this number, a somewhat extended report of the transactions of the American Gynecological Society, at its annual meeting held in Baltimore, September last. Upon the important sub-

ject of intra-uterine medication we are able to give interesting points additional to those already presented in a previous number, and, under the head of puerperal septicæmia, immediately following, are additional considerations bearing upon the same subject. The address by the President, Dr. T. Gaillard Thomas, was not only a highly accomplished production, but one which contained much food for thought. With his position regarding medical literature we are especially pleased, and believe that if a more thorough, impartial, and scrutinizing review, sacrificial if needs be, was given to the volumes which are poured out yearly, a great and lasting good would be accomplished.

A few papers are worthy of special mention because they are upon either new subjects, or upon subjects which have not received the attention which their importance demands.

The paper presented by Dr. A. J. C. Skene, of Brooklyn, contains original observations among a class of patients hitherto unstudied from this special point of view. Only the conclusions reached by Dr. Paul F. Mundé, of this city, in his paper, are given, yet they embrace important points in the diagnosis and treatment of an affection which has not received due consideration in the text-books on diseases of women.

The paper by Dr. Isaac E. Taylor, coming from such a skilled operator, is entitled to careful consideration, and is especially interesting in the light of the recent discussion on the use of the obstetric forceps, held in the London Obstetrical Society, with an abstract of which our readers have been already supplied. To use the forceps in the first stage of a natural labor, merely to assist nature, nothing more, although a doctrine advocated for many years by Dr. Taylor, has not been brought so prominently before the profession as in the present instance.

Dr. J. Taber Johnson, of Washington, read a paper which has a practical bearing upon preventive medicine in a most important department. We fear it will not receive the study to which it is entitled, simply because it strikes so deep at the root of the culpable practice of too many careless practitioners.

A large number of papers were presented which were not read. Those which were read, in general possessed notable value, and the discussions which followed enhanced their worth to a marked extent. Of course there was much dross with the gold exhibited, but unfortunately this is one of the characteristics of all medical societies carried on upon the open plan which of necessity governs the working of all such organizations. The fourth annual meeting of this society, however, was a success, and none of its members or invited guests have reason to regret that it was held in Baltimore, where they were received with open arms, open hearts, and open houses, by the medical profession of the city.

CONSERVATIVE JOURNALISM.

Several months ago the *Philadelphia Medical and Surgical Reporter*, in discussing the subject of licensed prostitution, took occasion to praise the workings of the British Contagious Diseases Acts; it also complimented very highly the medical press of England for its stand in favor of these laws, and lamented the dulness and conservatism of American medical journals in not advocating the regulation of prostitution in this country, and thus taking equally broad views with their English brethren. Subsequently a special reference was made to The Medical Record for its very ridiculous backwardness in this direction.

Now the facts are, as we have shown, that the Contagious Diseases Acts have only a limited and peculiar application. A journal might consistently defend them and yet deny the utility of the general adoption of regulation measures. The fact, therefore, that English medical journals are in favor of these acts, while American journals do not advocate any of the present systems of regulating prostitution, furnishes no evidence that the latter are unenlightened and unprogressive. The melancholy of the *Reporter* over the blindness of its exchanges would seem to be quite illogical.

There are times, however, when an apparent shallowness of reasoning is not so much an evidence of insufficient intellect as of inadequate information; and we are glad to think that this is the case with our esteemed contemporary. We recommend to it a more extensive perusal of the literature of the subjects which it discusses.

Reports of Societies.

THE AMERICAN GYNECOLOGICAL SOCIETY.

Fourth Annual Meeting, held in Baltimore, September 17, 18, and 19, 1879.

Wednesday September 17th—First Day—Morning Session.

The Society met in the Johns Hopkins University, and was called to order at 9.30 A.M. by the President, Dr. T. Gaillard Thomas, of New York.

Thirty Fellows responded to the roll-call.

The address of welcome was given by Dr. W. T. Howard, of Baltimore.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Dr. W. H. Baker and Dr. W. C. B. Fifield, of Boston; Dr. J. S. D. Cullen, of Richmond, Va.; Dr. W. A. B. Norcom, of Edenton, N. C.; Dr. C. W. Franzoni, of Washington, D. C.; Dr. H. H. Battey, of Rome, Ga.; Dr. N. D. Baker, of Martinsburg, Va.; Dr. Henry Carpenter, of Lancaster, Pa.; Dr. W. Selden, of Norfolk, Va.; and President D. C. Gilman, Dr. J. Carey Thomas, Dr. G. Lane Taneyhill, Prof. G. W. Miltenberger, Prof. Alan P. Smith, Prof. S. S.

Chew, Prof. A. F. Erich, Dr. B. B. Browne, Dr. Thomas H. Buckler, Prof. Christopher Johnston, Dr. J. J. Chisolm, Prof. F. Donaldson, of Baltimore.

PRESIDENT GILMAN then made a brief allusion to the work of the University, and welcomed the Society in behalf of the two foundations bearing the name of Johns Hopkins.

The first paper was read by DR. JAMES P. WHITE, of Buffalo, N. Y., on the subject of

INTRA-UTERINE MEDICATION,

and in it he passed over pathological conditions and the therapeutics of those conditions, and simply gave some hints regarding the means which had been found available in the proper application of remedies to the mucous membrane of the neck and body of the uterus. Although intra-uterine injections were advised by some, they were rarely resorted to by the experienced practitioner. He spoke of the necessity of enlarging the cervical canal before resorting to this method of treatment. He recommended shallow incisions into the mucous membrane of the neck of the uterus, to facilitate in certain cases the introduction of sponge-tents. If properly made, no harm followed the incisions. After removing the catarrhal discharge from the cervix, he very commonly used the following as a local application:

℞. Iodine..... 3 i.
Iodide of potassium..... 3 ss.
Tannin..... 3 i.
Glycerine.....q. s. to dissolve.
M.

Dr. White then exhibited several instruments to be used in carrying out intra-uterine medication.

INTRA-UTERINE MEDICATION BY IODIZED PHENOL.

DR. ROBERT BATTEY, of Rome, Ga., read a paper on the above subject, which consisted essentially in results obtained in a series of cases by the use of this agent, which he first brought to the notice of the profession in February, 1877. For ordinary purposes he recommended a solution of iodine in liquefied carbolic acid, in the proportion of 2 to 8. The energy of the solution was limited by the quantity used and the time it was allowed to remain in contact with the surface to which it was applied. It was rapidly absorbed and gave but little pain. The cervical glands were not destroyed by its use, and in no case within his knowledge had it produced stenosis.

The President called upon DR. J. MARION SIMS, of New York, to open the discussion on the papers by Drs. White and Battey.

DR. SIMS remarked, with reference to Dr. White's paper, that he was sorry the author had not mentioned the diseases in which he employed intra-uterine medication; and, with reference to Dr. Battey's paper, he was sorry the author did not continue to read the histories of the cases with which he illustrated his method of practice. The cases seemed to justify the means employed; yet, to him, it did not seem to be the best and quickest method of dealing with them. He thought, from his recollection of the histories as read, that in some of them the symptoms depended on the presence of fungoid granulations in the cavity of the uterus, and that any one of them might have been cured within four weeks simply by using the curette without intra-uterine medication. Certainly, with regard to time, treatment by the use of the curette would have been the most valuable, and, with regard to safety, he was not prepared to say that it was not quite as safe as intra-uterine medication by the use of the remedy recommended. Carbolized preparations, in disagreeable odor, were second only to iodoform, which, on that account, he did not employ.

He had treated successfully several cases of uterine catarrh, in which there was present an albuminous secretion that persisted, despite ordinary treatment, by dilating the cervical canal, scraping the fungoid granulations completely away, and afterwards cauterizing the cervix up to the os internum by means of Paquelin's cautery.

DR. ISAAC E. TAYLOR, of New York, remarked that the course of treatment just mentioned by Dr. Sims was one which he had pursued for several years, and that he had given up all other methods. He used an iron heated a little above the dark color, and applied it rapidly to the part.

DR. WILLIAM T. HOWARD, of Baltimore, spoke of the importance of making a correct diagnosis, and the first thing he endeavored to do was to ascertain how far flexion, which was almost always present, extended. If it extended only to the os internum, the case was more easily controlled than when it extended beyond. He had not been able to effect a cure of the catarrh when there was present much flexion, especially of the body; but the first step in the treatment was to endeavor to correct the flexion, and then retain the uterus in position by means of a pessary. He had used Battey's preparation of iodized phenol, and in a large proportion of cases he had found it to be an efficient agent.

DR. FORDYCE BARKER, of New York, remarked, with regard to injecting the cavity of the uterus, that the use of the most bland fluid in that manner often produced the most intense pain in cases in which the size of the canal was normal, but not so in a uterus enlarged as in pregnancy. Therefore, in the treatment of hemorrhage after labor at full term or after abortion, there was perfect toleration of the injection into the uterine cavity; consequently in that class of cases intra-uterine injections were sometimes of great service. With reference to the value of the curette and intra-uterine medication, he thought they were not to be compared with each other as being applicable to the same class of cases. For example, metrorrhagia dependent on fungoid degeneration of the lining of the uterus, at the climacteric period as an illustration, could be best treated probably by the use of the curette; but metrorrhagia occurring at that period did not always depend upon that cause, and in that class the curette was of no service whatever, while intra-uterine medication might be employed with very great benefit.

Again there was a class of cases in which the uterus was flabby, as the result of impaired nutrition frequently associated with subinvolution, and in those cases he has been more successful in the use of intra-uterine medication than by the use of the curette.

He then related three cases of membranous dysmenorrhea which he had cured by means of intra-uterine applications of iodoform in the form of cones. First dilate the cervix, then introduce cones, one every other day. He showed a syringe to be used as an applicator.

DR. JOHN BYRNE, of Brooklyn, N. Y., remarked that success in intra-uterine medication depended entirely upon accuracy in diagnosis, not only with regard to the condition of the uterus, but more especially as to the question of etiology. The uterus in a normal or nearly approaching a normal condition would not tolerate with impunity any foreign substance in liquid form in its cavity, however bland it might be. The conclusion which he had reached was

that, if great accuracy in diagnosis was observed, intra-uterine medication, judiciously resorted to, was of immense value, and might be employed with perfect safety; that the farther the departure of the uterus from the normal to the pathological standard, the more tolerant it became of all medication and all interference; that liquid injections he had long since abandoned, with a single exception, namely, chloride of sodium water, after the use of the curette, securing a full, free return for the fluid.

The use of the curette was a successful method of treatment, but there were cases of uterine catarrh in which the cautery would succeed when the curette failed.

Dr. Paul F. Mundé, of New York, remarked that, in the light of an experience in intra-uterine medication of various kinds in more than two thousand gynecological cases, he had long since discontinued the use of intra-uterine injections. He recommended Buttles' hard-rubber uterine syringe, which operated in precisely the same manner as the instrument described by Dr. Barker. Even from that, the most effectual, and also the most harmless manner of making intra-uterine applications through an undilated os, he had seen three cases of uterine colic with moderate shock, one (in which a solution of nitrate of silver ʒi. to ʒi. was used) so severe as to keep the patient in his office for several hours and necessitate a hypodermic injection of morphine.

Dr. Wm. Goodell, of Philadelphia, objected to making incisions in the mucous membranes of the cervix before using the sponge-tent; the danger was from subsequent absorption of septic material.

With reference to intra-uterine medication, he had within the last three or four years been using it with a great deal more effect than formerly. He rarely uses the syringe by means of expression, but by injecting carefully and slowly the solution employed—four to eight drops of Calvert's No. 4 solution of carbolic acid, or Dr. Battey's solution with hydrate of chloral added. With reference to injections, if the womb was positively diseased, there was no harm from using fluid in its cavity, because the os was patulous; but if, as in a hysterical subject, it was difficult to determine whether or not the endometrium was diseased, they should be avoided. There was a class of cases in which he believed that the pain was due to fissure at the internal os, and such cases he had cured by forced dilatation of the cervical canal, and making a local application at that point.

Dr. Nathan Bozeman, of New York, thought sufficient estimate had not been placed upon displacements of the uterus as a factor in the etiology of uterine catarrh. His method of treatment was to first correct the displacement, and when that was done, although not entirely opposed to intra-uterine medication, he thought almost any kind of application might yield satisfactory results.

Dr. H. P. C. Wilson, of Baltimore, believed that, when properly and gently administered, intra-uterine medication might be expected to yield good results, the same as were obtained by the local application of remedies to other mucous membranes, as to the throat, the urethra, etc. He thought one reason why we were not so successful as we might be in the use of intra-uterine medication was because of the imperfect manner in which the applications were made, improper manipulations, etc., and too much such medication was often a reason why we were not more successful. He had abandoned injections into the uterine cavity. He uniformly employed Sims's speculum and applicator.

Dr. Thaddeus A. Reamy, of Cincinnati, remarked that he had used Dr. Battey's preparation, but had abandoned it in consequence of its unpleasant odor. He thought that, in many cases of catarrh in which the uterus was enlarged and the disease had become chronic, great benefit was derived from dilating the cervix, independent of any consideration of being able to reach the cavity of the uterus, or of any consideration connected with medication of the cervical walls. In cases of what is commonly called incurable cervical catarrh, he had for many years dilated the cervix thoroughly with sea-tangle tents, and then applied Churchill's tincture of iodine, or some such preparation, and he had been pleased with the results obtained. The plan was, to dilate at different times, and make the local application. For villous degeneration, the use of the curette alone was not sufficient; the pressure from thorough dilatation should be added. He also disapproved of incising the mucous membrane of the cervix.

His treatment for membranous dysmenorrhœa was to use the wire curette only moderately sharp, when the first symptoms of menstruation manifest themselves, curetting the entire endometrium. He disapproved of injecting the cavity of the non-puerperal uterus.

The President took the position that intra-uterine medication, carried above the os internum, should be given up as very hazardous, in many cases as very useless, and as a means of treatment which yielded disappointing results. He believed that, when uterine catarrh extended above the internal os, there was, as a rule, some special cause for it, such as flexure or version, and very commonly uterine congestion induced by only a slight degree of uterine descent. Treat the cause, and the secondary manifestation disappeared. In cases of fungoid degeneration following abortion or labor at full term, intra-uterine medication was so far inferior to the curette that it should not be adopted. The point of his argument was, that in all these cases there was generally something which gave rise to the symptoms, and when it was removed the symptoms would disappear.

The discussion was closed by Drs. White and Battey.

NOMINATING COMMITTEE.

The President appointed Drs. Fordyce Barker, Isaac E. Taylor, and W. L. Richardson as Committee on Nominations. He also appointed Drs. A. J. C. Skene and N. Bozeman as

AUDITING COMMITTEE.

The Society then adjourned to meet at 3 P.M.

FIRST DAY—AFTERNOON SESSION.

The Society was called to order by the President at 3 P.M.

The first paper was one on

THE TREATMENT OF PUERPERAL SEPTICÆMIA BY INTRA-UTERINE INJECTIONS,

presented by Dr. E. W. Jenks, of Chicago, and read by the Secretary.

The paper contained an extended reference to the literature of the subject, the varying views which from time to time had been held, together with the author's conclusions.

Dr. James R. Chadwick, of Boston, then read a paper entitled

IDIOPATHIC SEPTICÆMIA IN GYNECOLOGICAL PRACTICE.

In the term "gynecological practice" he included obstetrical, and defined septicæmia as a constitutional

disorder of limited duration, caused by the entrance into the circulation of a certain quantity of septic material [Burdon Sanderson]. As illustrating the character and symptoms of the disease, he gave the histories of five cases which had the following features in common: a denuded surface in the uterine cavity and chill; there was no pain, vomiting, or other sign of inflammation, but high fever, and the special symptom mentioned as belonging to most of that class of cases was an abnormal insensibility to pain, taken in conjunction with high fever.

He preferred to use permanganate of potash as a disinfectant, making a solution of a deep claret color. One special advantage of that agent was the change in color produced by the presence of putrid matter, the change being from deep claret color to deep yellow so long as putrid material was present. Injections into the uterus should be discontinued if chills followed. Danger from air entering into the sinuses was due to the amount entering, the entrance of a considerable quantity being required to do harm.

PUERPERAL SEPTICÆMIA.

Dr. A. D. Sinclair, of Boston, then reported twenty-one consecutive cases of puerperal septicæmia which occurred in the Boston Lying-in Hospital. Of those nine died and twelve recovered. The cases illustrated direct contagion, and the *conditions favoring the invasion* were: prolonged and severe labors; 2, torn perineum or lacerated cervix; 3, retention of the foreign matter in the uterus; 4, nervous condition.

The treatment was: 1, quinine to cinchonism; 2, brandy to alcoholism; 3, nutriment, all that could be borne, in the shape of milk, beef-tea, eggnog, etc.; 4, uterine douches of permanganate of potash and carbolic acid; 5, sponge-baths.

The douches were given every three hours. The brandy was given, in one case, ℥ss. every half-hour without inebriation, and beef-juice and tea of six pounds of meat in one day.

The subject of puerperal septicæmia being before the Society, the President called upon

Dr. Gilman Kimball, of Lowell, Mass., to open the discussion. He remarked that, although he had seen a great deal of septicæmia following ovariotomy, he was yet ignorant of its nature, and of what to do for the patient when it occurred. One thing had struck him as remarkable, and that was, that some of the worst cases he had ever had—cases in which the discharges incident to ovariotomy had been of the worst character and most persistent, had really done the best; while in many other instances, in which there was no discharge at all, septicæmia or symptoms like those of septicæmia had developed, and fatal poisoning had gone on very rapidly. When it did occur, his chief reliance was on stimulants and nutriment.

Dr. A. J. C. Skene, of Brooklyn, believed that when we employed antiseptic management in puerperal cases, as was antiseptic surgery, we should improve in our results the same as had the general surgeons in theirs. He was inclined to think that the use of intra uterine injections would become, if it had not already, very circumscribed indeed, and that in the future the authors of the papers would not use them so much as they had in the past. He also thought that intra-uterine injections were a means which could not be employed without danger; and, more than that, the use of the vaginal and uterine douche did not always guard against the occurrence of septicæmia after the uterus had been injured.

The discussion was continued by Drs. G. J. Engelmann, of St. Louis; Fordyce Barker, of New York; Paul F. Mundé, of New York; H. P. C. Wilson, of Baltimore; W. Goodell, of Philadelphia; W. T. Howard, of Baltimore; James D. Trask, of Astoria, N. Y.; A. T. Erich, of Baltimore, the President, and Dr. Chadwick.

The Society then adjourned to meet at 9.30 A.M. on Thursday.

Thursday, September 18th. Second Day Morning Session.

The Society was called to order by the President at 9.30 A.M.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Dr. E. A. Atkinson, Dr. Thomas F. Murdoch, and Dr. John Dickson, of Baltimore; Dr. A. F. King, Dr. W. W. Johnson, and Dr. T. Hansmann, of Washington, D. C.; Dr. W. H. Geddings, of Aiken, S. C.; Dr. D. W. Lassiter, of Petersburg, Va.; Dr. F. Wilhoft, of New Orleans, and Dr. W. W. Baird, of Washington, N. J.

The first paper was read by Dr. S. C. Busey, of Washington, D. C., and entitled

A CONTRIBUTION TO THE PATHOLOGY OF THE CICATRICES OF PREGNANCY.

The author of the paper began with a review of the literature of the subject, in which were presented the views of Credé, Schultze, and Hecker, which relate especially to the value of these scar-like streaks and spots, as a sign of existing or previous pregnancies. Then followed a discussion of the anatomy of the striæ, and the nature of the lesion giving rise to those appearances. Dr. Busey reached the conclusion that the striæ were not caused by rupture of the Malpighian layer, as generally believed, nor separation of the fibres of any of the layers of the skin. In conclusion, he maintained that the striæ of pregnancy were localized atrophies of all the constituent layers of the integument, with compression and partial obliteration of the lymph-spaces.

On motion made by Dr. Barker, the discussion of the paper, which its high scientific character rendered impossible without special preparation, was omitted.

PROLAPSE OF THE OVARIES.

Dr. Paul F. Mundé, of New York, read a valuable paper on the above subject, restricting his remarks to intrapelvic dislocation of the normal or but slightly enlarged ovaries. He reached the following conclusions, based upon observations made in 1,600 unselected gynecological cases:

1. The subject of prolapse of the ovaries had not received, in the text-books and periodicals, the attention which its importance as a separate affection demanded.

2. Ovarian prolapse, owing to the normal mobility of the organs, was a very common affection, frequently accompanying retro-displacement of the uterus, and in by far the greater number of cases the displacement was backwards into Douglas's pouch.

3. The normal, not markedly enlarged ovaries, frequently prolapsed, either in consequence of retrodisplacement of the uterus, sudden jarring of the body, puerperal subinvolution, or menstrual congestion. More frequently still did prolapse occur in consequence of moderate enlargement of the ovaries through engorgement or inflammatory hyperplasia.

4. Their prolapsed conditions caused even normal ovaries, in time, to become hyperæmic, hyperplastic, and hyperæsthetic, partly through vascular obstruction and partly through the injuries to which they were subjected during defecation and coition. Already enlarged and degenerated ovaries, for similar reasons underwent a more rapid pathological change in consequence of their displacements.

5. In rare instances displaced ovaries had been found to become spontaneously replaced; thus, after the cessation of menstrual engorgement and through accidental favorable positions of the patient. As a rule, however, a displaced ovary required replacement by artificial means.

6. The symptoms caused by displacement of the normal ovaries, while more or less vague, were sufficiently severe to attract the attention both of the patient and the physician.

7. The diagnosis of ovarian prolapse was exceedingly easy to the practised touch *per vaginam*, rectum, or by conjoined manipulation.

8. The treatment consisted in replacing the organs manually, or by position, or by replacing the uterus, if displaced, which was readily possible if the ovaries were not adherent, and then retaining them in position by tampons or properly constructed pessaries adapted and moulded according to the needs of each individual case. If feasible, it was advisable in every case, to endeavor, first, to relieve the hyperæmia and hyperplasia so long as the organs were readily accessible.

9. Much ingenuity and patience might be required to devise proper means for supporting the inflamed and tender ovaries, which, once replaced, should be treated by the well-known remedies for chronic ovaritis.

10. If the ovaries were adherent the treatment resolved itself into antiphlogistic and narcotic measures. In cases of great local or constitutional disturbance, the last resort, their removal, might be suggested and adopted.

ANNUAL ADDRESS BY THE PRESIDENT.

The President, Dr. T. Gaillard Thomas, of New York, then delivered the annual address on the subject—

THE GYNECOLOGY OF THE FUTURE AND ITS RELATION TO SURGERY.

The introductory portion of the address consisted of words of welcome on the pleasant reunion, reference to the influence of such societies, a tribute of respect to the late Marmaduke B. Wright, M.D., of Cincinnati, Honorary Fellow, and a return of sincere thanks to the Society for the honor conferred upon him by electing him their presiding officer. He then passed to certain general considerations in reference to the department to which the members were especially devoting themselves, and followed with a notice of some of the chief influences which retarded gynecological and obstetric progress. Chief of the latter was the lack of facilities for demonstration of special views and operations. The result was, regarding clinical midwifery and gynecology, that a spirit of dogmatism had been creeping into our literature, that weakened them and gave strength to their opponents. It was the spirit of dogmatism that created so many diversities of opinion among pathologists with reference to points upon which all should agree, and gave to remedial measures such exaggerated prominence for short periods.

A few of the once popular remedial measures were mentioned, such as sponge-tents, cervical section, etc., but which to-day stood upon their proper basis as valuable diagnostic and surgical resources. No one familiar with Emmet's operation for trachelorraphy could doubt its beneficent results, and yet even that seemed destined to do a certain amount of evil before it stood upon reasonable middle ground. The proper use of such procedures as mentioned he did not criticise, but he censured all who adopted those, or any others, as cure-alls and overcame the doubts of the inexperienced by exaggerated and dogmatic assumptions.

Another great need, not only in the department of gynecology and obstetrics, but in general medical literature, was proper reviewing of books and pamphlets. The ringing tones of just and honest criticism, were rarely heard. He suggested that a standing committee on reviews be established, which should, as a body, pronounce judgment on current literature in their department. The opinion was still to a too considerable extent prevalent, that nearly all of the operations in obstetrics and gynecology could be as well performed by the general as by the special surgeon. Passing to the theme of his discourse, he remarked, that until 1850 gynecological surgery, justly speaking, had no existence; that all was uncertain as to principles. During the following decade it received a very great impulse. In 1846 anæsthesia was given to man, and, Minerva-like, gynecological surgery sprang into renewed life at the hands of Simpson in Scotland, Baker Brown in England, Marion Sims in America, and Gustav Simon in Germany. It became subject to abuse, however, and to prevent the pendulum from swinging too far in an opposite direction, should it not be boldly asserted to the profession at large that gynecological and obstetric surgery stands to-day upon tenable, reasonable middle ground? He assumed that an enlightened conservative surgery was the pivot around which was to revolve the gynecology of the future. But he did not urge the claims of surgery at the expense of those of constitutional treatment in gynecology: the two should work together, if the greatest good was to be obtained; the one, however, never being substituted for the other. Medical and surgical gynecology were united by what the mechanic called dovetailing. The speaker then referred in severe terms to the body of men whose peculiar function was to decry every advance, to depreciate every effort at progress, and, under the fraudulent guise of conservation, to smother every attempt at improvement by abuse and misrepresentation. A wise conservatism was like a compass to the mariner, but its "counterfeit presentment" was what he denounced. Recognizing and fully appreciating that the gynecological surgeons of our times were steadily advancing upon the road of progress, and assured that those procedures which had been most abused now stood upon the safest foundation, the Fellows were urged to strive without ceasing to bring more and more completely the pathology of their department under the domain of their senses and the control of their hands.

On motion made by Dr. White, of Buffalo, the thanks of the Society were extended to the President for his able address.

After the President's address, a paper presented by Mr. T. Spencer Wells, of London, England, was read by the Secretary. It was entitled

A REPORT OF A SUCCESSFUL CASE OF BATTEY'S OPERATION.

The patient was aged 50 years, both ovaries were removed, and she recovered. The terrible pain from

which she suffered before the operation was not entirely removed, but sufficiently so to cause the woman to say that she had been paid for undergoing the operation.

Discussion upon Dr. Mundé's paper being next in order.

Dr. Robert Battey, of Rome, Ga., remarked that he had not been able to connect prolapse of the ovary with disease of the organ in the relation of cause and effect. In by far the greater majority of cases, prolapsed ovaries were diseased, but on the other hand he called to mind numerous cases of diseased ovaries entirely unassociated with prolapse of the organ.

For the relief of ovarian and uterine pain he had employed "Mrs. Betts's utero-abdominal supporter" with great benefit.

The discussion was continued by Drs. Skene, Goodell, Bozeman, and Reamy; and on motion made by Dr. Albert H. Smith, of Philadelphia, was postponed until the afternoon session.

The Society then adjourned to meet at 2 o'clock P.M.

SECOND DAY.—AFTERNOON SESSION.

The Society was called to order at 2 P.M. by First Vice-President Dr. H. P. C. Wilson, of Baltimore.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Drs. James E. Morgan, F. Howard, S. O. Ritchie, of Washington, D. C.; and Dr. Hunter, of Martinsburg, Va.

The next business in order being the discussion of Dr. Mundé's paper.

Dr. Fordyce Barker, of New York, remarked that in treatment the thing to be accomplished was to restore the organ, as far as possible, to its normal position, to keep it there, and to obviate or remove all the causes which developed or perpetuated that pathological condition.

Attempts at replacing the prolapsed organ were not always successful, yet it is always worth while to make the attempt; and for overcoming plastic exudation, he suggested hot-water injections and the use of mercury in the form of minute doses of the protoxide continued for some time

To retain the organ in position he recommended the cotton tampon, aided by a solution of tannic acid, equal parts with water.

To correct the habit of constipation, he was accustomed to give a laxative composed of equal parts of sulphate of magnesia, carbonate of magnesia, tartrate of potassa, and sulphur.

Dr. S. C. Busey, of Washington, D. C., remarked that his experience corroborated almost entirely that expressed by the author of the paper. From his experience he would say, however, that structural changes in the ovaries were secondary, and usually secondary to displacement of the uterus. He thought that external abdominal support acted by restoring the equilibrium of pressure which the superincumbent viscera exerted on the pelvic organs.

Dr. Albert H. Smith, of Philadelphia, thought that if the subject of prolapse of the ovaries received more attention than it did, if its importance were more fully recognized, and more careful examination made with regard to that condition, there would be a lesser number of cases in which the patient went about from one physician to another, and submitted to one and another form of treatment. He thought that, in most cases of prolonged pelvic trouble, painful in character, and in which various methods of treatment had been adopted without benefit, prolapse of the ovaries was the pathological condition present. He had not seen good results from the treatment of prolapsed ovaries by means of pessaries. He had obtained the best results from the use of a simple bag of tarlatan stuffed with tannic acid. There were many cases, doubtless, which could not be relieved unless it was by means of Dr. Battey's operation.

The discussion was continued by Drs. Chadwick and Battey, and was closed by Dr. Mundé.

Dr. John Byrne, of Brooklyn, read the next paper, which had for its title

KOLPO-CYSTOTOMY BY GALVANO CAUTERY.

Kolpo-cystotomy as a means of restoring continuous artificial drainage of the bladder was an American operation. The author then gave a history of the the operation, and exhibited his instrument by means of which it could be performed without the destruction of tissue beyond the outline of its blades. He had not used the thermo-cautery, believing it to be dangerous and unsuitable for operations in cavities among delicate structures, even when guarded by Wilson's jacket.

The paper being before the Society for discussion,

Dr. Henry J. Garrigues, of New York, remarked that he could not entirely endorse the criticism offered by Dr. Byrne regarding the thermo-cautery. From personal experience he was not aware that the radiating heat was less from the galvano-cautery than from the thermo-cautery. That, however, could be determined by physical experimentation.

The paper was also discussed by Dr. White, and the discussion was closed by Dr. Byrne.

The next paper was one presented by Dr. Isaac E. Taylor, of New York, but, on account of lack of time, was not read. Its title was

COMPLETE CONGENITAL AND ACCIDENTAL ABSENCE, OR ATRESIA OF THE VAGINA IN THE PREGNANT AND NON-PREGNANT FEMALE; TREATED BY THE TEARING OR LACERATING PROCESS,

and the following is a brief abstract.

The treatment of this class of cases had always been regarded by surgeons as difficult, and as liable to give rise to serious, if not fatal results. Whatever the exact nature of the defect might be, it was conceded that the accidents which caused death when the operation was performed were nearly identical.

The vagina might be totally or only partially absent. In some instances the vagina had an opening into the rectum, the anus, or the urethra, and pregnancy occurred.

Dr. Taylor then related a case of complete congenital atresia of the vagina, with pregnancy and safe delivery of a living child. It was treated by the tearing process with the finger-nail. The mother made a good recovery. In that connection he presented the case reported by Dr. R. P. Simmons in the St. Louis *Medical Examiner*, in February, 1847. In that instance the knife was used, and the child was safely delivered. Dr. Simmons asked the question, and Dr. Taylor joined in the query, How did the menstrual fluid find its exit in either case from the uterus, and by what law of the animal economy did conception take place? Was there a vicarious secretion from the inner surfaces of the labia pudenda or contiguous parts, or did the menstrual fluid permeate the fibrous structure blocking up the whole of the vagina? These were cases of atresia not traceable to either disease or accident, in which the vagina was almost closed, the most careful examination, however, failing to detect the minutest opening.

Dr. Taylor did not adopt the opinion that a vicarious discharge or transudation of menstrual fluid occurred through the dense fibrous structure, or through the anus, or through the bladder. The opening was sometimes so small that it was recognized, if recognized at all, only with the greatest difficulty.

For this class of cases, Dr. Taylor recommended operative procedure, which consisted in tearing the tissues. His first operation was in 1866, in the pregnant, and in 1867 in the non-pregnant. Dr. Emmet had published, in 1866, three cases in which the opening was made by the tearing process, but of these cases Dr. Taylor did not know when he operated. Amussat's case was published in 1835, and the operation was performed by the tearing process in 1832. M. Debrou treated a case in the same manner in February, 1847, and published it in March, 1851, but he was anticipated by Simmons in this country, who operated in November, 1846.

He disapproved entirely of operating through the rectum in either class of cases. If the obstruction was epithelial or connective tissue, the tearing or lacerating process by the finger-nail, or a convenient instrument, would succeed. If the structure was dense, recourse must be had to the knife, trocar, or scissors. Dr. Taylor preferred to operate when the uterus was quiescent, and pressure on the uterus for evacuating accumulated menstrual fluid should be avoided. Forcible injection of the uterus with warm water should be avoided. He believed that in such cases, after an operation, marriage was permissible. In cases in which the atresia existed in the pregnant, he believed it would be safer to defer the operation until the labor began, than to operate earlier.

MEASUREMENTS OF THE UTERINE CAVITY IN CHILDBED

was the name of a paper then read by DR. A. D. SINCLAIR, of Boston. It contained an analysis of 108 cases, and was mostly statistical. The average length of the uterine cavity in the 108 cases was 3.02 inches. The average length of the uterine cavity in 75 primiparæ was 2.94 inches. The average length of the uterine cavity in the 33 multiparæ was 3.21 inches.

The Society then adjourned to meet on Friday, at 11.30 A.M.

FRIDAY, SEPTEMBER 19TH. THIRD DAY—MORNING SESSION.

The Society was called to order at 10.30 A.M., by the President.

THE EARLY APPLICATION OF THE FORCEPS IN THE FIRST STAGE OF NATURAL LABOR.

DR. ISAAC E. TAYLOR, of New York, read a suggestive paper on the above subject, which embraced the following views: He distinguished natural from lingering or protracted labor. In natural labor the soft structures yielded kindly and without injury, while in tedious and prolonged labor they became irritable, congested, and œdematous, and there was imminent danger of injury being produced. Interference in the process of labor, when it was going on well, was unjust and reprehensible. The views entertained by Naegele, Ramsbotham, Collins, and Schroeder, regarding interference in the *second* stage of labor, Dr. Taylor regarded as extravagant fears of mischief, and he thought no intelligent practitioner of the present day would yield to such doctrines. Those writers, however, had ignored the *first* stage of labor, and believed that no harm followed its continuance for from 60 to 160 hours, so long as the membranes were entire and the liquor amnii not escaped. From that view Dr. Taylor dissented, and asked, "*Are the structures of the powerful and hard-taxed uterus, body, and cervix of no value? Is the pressure of the child's head on the lower part of the body of the uterus or the superior part of the cervix, when the head is capped by the cervix itself, the pains active and steady, and no advance made for some hours, of no moment? When is nature to cease pegging away?*"

The practice in such cases, which he had followed for nearly eighteen years, if the uterus did not relax, and the head of the child did not adapt itself properly to the os, membranes ruptured or unruptured, even though the os was not open more than one or one and a half inches, and no unfavorable symptoms, except the fact that the labor did not progress, was not to place his patient under "the ban of time," but proceed to abbreviate the *first* stage the same as he would a prolonged *second* stage of labor, and he did it in the following manner: he introduced his *thin, narrow bladed* forceps (the ordinary forceps being too wide), and brought the head of the child properly in contact with the *undilated cervix and lower part of the body of the uterus* without using any forcible traction whatever. The obstruction was at the *upper part* of the cervix. The os might be dilatable or not, but unaided nature could not overcome the difficulty in the cervix, and sometimes sought relief by rupture of the uterus at that point. To deliver such cases safely sometimes required one or two hours, or even more, but yet the whole length of the labor was very much shortened. The *object* of the forceps was simply to *retain* the head of the child in contact with the os uteri *during* and *after* a pain, and in some cases to aid in flexing the head so that the occiput might become the *natural dilator* of the cervix. After fifteen or twenty minutes, if the os uteri was found to be more dilated, the forceps were removed at the *beginning* of a pain, and the head sometimes effected the dilatation sufficiently to escape through the os, and then the labor progressed, and was completed, naturally or otherwise, according to circumstances. The forceps might be reapplied a few minutes after their removal, and so the relay treatment might go on, and the forceps be applied and reapplied three or four times. The inexperienced in the management of these cases should not resort to the forceps unless they had had some practical experience in their use in the *second* stage of labor. It was equally important to know when to cease traction.

The "*novelty*" of the propositions had passed away, the "*revolutionary*" change had taken place, and the "*innovation*" had existed since 1863, although Dr. Johnston, without giving due credit to its originator, had adopted the method in 1871, and had been convinced of its great value in saving the life of both mother and child in 113 such cases. In experienced hands, the operation, if carefully and skilfully performed, was a safe procedure, and illustrated the "*scientific frontive.*" Every obstetrician should know *why*, *when*, and *how* to interfere in the parturient process.

The paper was discussed by Drs. White of Buffalo, Howard of Baltimore, Reamy of Cincinnati, and Dr. Taylor.

DR. WILLIAM GOODELL, of Philadelphia, then read a paper entitled

CLINICAL NOTES ON THE ELONGATIONS OF THE CERVIX UTERI.

In this paper, the author gave his views with regard to the etiology and pathology of the two forms of

prolapsus of the womb, viz., the elongation of the supravaginal portion of the cervix, and that of its infravaginal portion. The former he regarded as due to the traction of a prolapsing bladder and vagina upon a womb made ductile either by subinvolution or by chronic congestion. He believed that that form of elongation was not congenital, but acquired. The author had, however, seen it once in a sterile married woman, and twice in virgins who had passed the climacteric.

In view of the very unsatisfactory results from the usual operative treatment of that very frequent form of prolapse, the author gave the history of twelve of his cases, these being the only ones of which he could keep track for any length of time. Each one had the vaginal portion of the cervix cut off, either by the cold wire or by the hot wire, and in each one the vulvo-vaginal outlet was narrowed by the operation of colpo perineorrhaphy. The wire was used because, in the author's opinion, some suppurative action was needed to bring on retrogressive metamorphosis in the redundant portion of the cervix. The results were as follows:

Three women, since the operation, had been under observation for from five to six years, and had remained cured. Four women had thus far kept well for from two and a half to four years. Three women had not, up to the present time, exhibited the slightest symptoms of relapse, for six months, for one year, and for one year and a half respectively.

One woman, after staying well for four years following the operation, became pregnant and gave birth to a living child. Her perineum was again torn, and the bladder and vagina were beginning again to prolapse. One woman was cured of the cervical prolapse, but not of her cystocele or of her rectocele.

In the amputation of the cervix, the author preferred the cold wire to the hot one, because the danger from secondary hemorrhage was much less, and because the surrounding mucosa could be slid over and stitched to the stump, to which it would unite by granulations, and thus lessen the area of cicatricial contraction.

Elongation of the infravaginal portion of the cervix the author deemed either a congenital affection or an exaggeration of a congenital affection. True longitudinal hypertrophy he considered as essentially an affection of virgins or of sterile women. Of this variety he has seen seven cases in which the cervix either appeared at the vulva or protruded from it. Under the form of conical cervix, it was, however, very frequently met with, but the elongation was then limited.

With regard to the indications for the treatment of this elongation there could be no question. Since suppurative action was not needed, the redundant portion ought to be cut off by a sharp instrument, and not by the cold or the hot wire. The surrounding mucosa was then sewed to the mucosa of the os uteri by radiating stitches, which will prevent cicatricial contraction.

Dr. J. C. Reeve, of Dayton, Ohio, opened the discussion by remarking that there were two points to which he wished to call attention:

1. The paper presented cases from actual practice upon a subject concerning which there was a great diversity of opinion.

2. If he correctly understood the subject, it was the prevailing doctrine that all the evil effects which followed laceration of the cervix were mechanical. To that doctrine, however, he did not subscribe, but believed that the evil results were due to such conditions as subinvolution, and others produced by the injury to the cervix. To the preparatory treatment required he was inclined to give the credit of cure fully as much as to the surgical operation.

Dr. Alexander Dunlap, of Springfield, O., remarked that he had never met with a case of supravaginal elongation of the cervix. He had met with cases in which there was infravaginal elongation of the cervix, and in one the projection was nearly two and a half inches, produced sterility, and had very much the feel and appearance of the male organ. In that case he gave directions regarding sexual congress, so that the semen might be brought in direct contact with the mouth of the elongated cervix. Pregnancy occurred, and the woman subsequently bore children without hindrance. He would not, therefore, recommend amputation in all cases, certainly in married women.

Dr. A. J. C. Skene, of Brooklyn, remarked with regard to treatment, that he had followed that recommended by Dr. J. Marion Sims, and that he was fully satisfied with the results obtained. He was confident, so far as his own experience went, that Dr. Reeve was perfectly right regarding mechanical irritation. He did not believe that the good result depended entirely upon the suppuration that followed the operation, for oftentimes the hypertrophy rapidly disappeared when only a very small portion had been removed and there was only a trifling amount of suppuration.

The discussion was continued by Dr. Isaac E. Taylor, of New York, and closed by Dr. Goodell.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY AS RELATED TO INSANITY IN WOMEN.

Dr. A. J. C. Skene, of Brooklyn, presented a valuable paper on the above subject, which would have been read had time permitted. The following is an abstract.

In making observations in gynecological practice in the Brooklyn Insane Asylum he had met with an entirely new phase of practice, in which the ordinary methods of investigation were of little value. He was obliged to devise a new method of examining patients, and the system of investigation adopted and the phenomena observed, together with the deductions drawn from them, formed the subject-matter of his paper. He restricted his discussion to the relations which gynecology bore to insanity.

With reference to the way in which diseases of the sexual organs caused insanity, the rule has been to attribute insanity, when developed during the existence of uterine or ovarian disease, to reflex action. No doubt that was an important factor in the cause of mental derangement, but it was far from covering the whole ground. There were many cases of insanity that could be traced to the sexual organs, but in which reflex action took no part.

One of the most marked and important causes of insanity in women was clearly traceable to frequent child-bearing and lactation among the poorer classes. That he had proved by clinical observations. There was too little in our literature on the subject of mania caused by the exhaustion of the nervous system from child-bearing and nursing. Our books told us of anæmia from prolonged lactation, but said little of the nervous exhaustion which might or might not accompany the anæmia.

From cases in his own practice he was satisfied that occasionally the normal functional activity of the reproductive organs tended to undermine the brain and nervous system to an extent sufficient to lead to insanity.

He was also satisfied that the prevailing opinion

that insanity, as the result of reflex action, occurred very frequently at puberty and the menopause, was not always true. The point which the author of the paper made was that a clear distinction should be drawn etiologically between insanity caused by existing active disease of the sexual organs and insanity arising from brain-exhaustion produced by prolonged or excessive functional activity of those organs while free from disease, and he inclined to the opinion that as many or even more cases could be traced to the latter as to the former.

To the question, "What is the effect of insanity upon the function of the reproductive system?" Dr. Skene gave the formulated answer, that well-developed insanity with impaired general nutrition caused suppression of the functions of the sexual organs; that deranged innervation tended to produce the same result; that, in mild forms of insanity, menstruation might continue normal; that excessive menstruation among the insane was usually caused by uterine disease, and should be accepted as evidence of such.

To the question, "What effect did insanity exert upon diseases of the sexual organs?" he gave the answer that insanity tended to cure *functional* diseases of the uterus, but that such a conclusion could not be applied to other forms of local disease of an *organic* character. Organic diseases of the sexual organs tended to retard the recovery, but very much relief could be afforded in such cases by the art of gynecology.

To the question, "What are the ascertained effects upon the insane, of curative treatment regarding coexisting diseases of the sexual organs?" the doctor gave the following answer: that the acute affections of the brain and nervous system, wholly due originally to disease of the sexual organs, would be relieved in a large majority of cases by curing the primary affection, and the general condition of insane women would be improved by restoring the sexual organs to health.

Dr. Skene then directed attention to the question of *diagnosis* among the insane, and spoke of the difficulties of obtaining requisite clinical information. Physical examination had been beset with difficulties. Ether as an anæsthetic had been practically unsatisfactory. He used nitrous oxide gas, and had found that it answered the purpose admirably. The physical signs of disease varied but little from those found in ordinary cases. There was marked absence of tenderness, the vagina and cervix in cases of some standing were found to present the appearance seen after the menopause, and the rectum was, as a rule, impacted.

The diseases which occurred were not peculiar or worthy of special notice, and the treatment of diseases of the reproductive organs among insane women was based upon the general principles which guided us in ordinary practice, with such modifications as the peculiarities of this class of cases might demand.

Dr. J. Taber Johnson, of Washington, D. C., then read a paper on

MISMANAGED LABOR THE SOURCE OF MUCH GYNECOLOGICAL PRACTICE.

He referred to the wonderful achievements and rapid growth of gynecology. Diseases were now completely relieved which a generation ago were considered incurable. The diseases of women have greatly multiplied, until it was nearly as difficult in this day to find a perfectly healthy woman as it was for Diogenes, in his age, aided by his lantern, to find a perfectly honest man. The doctor thought that there was a tendency in the minds of the profession to the study of gynecology, to the neglect of the more important department of obstetrics, and illustrated his statement by referring to the fact that, of the seventy-one papers in the three volumes of the Society's transactions, only sixteen of them related to obstetrics, and that of the sixty-one articles and discussions in the July numbers of the American and British obstetrical journals only twenty of those were devoted to obstetrical subjects. He referred to midwifery as the more important branch, "because, while in the former (gynecology) we render our patients much more comfortable, and at times prolong life; in the latter (midwifery), by our operations and skill we not only save maternal and fœtal life at the same time, but prevent the necessity of our patients calling upon the gynecologist in the future at all, by preventing the *occurrence* of those conditions requiring their aid."

The object of the paper was stated to be to draw attention to the fact that gynecology derived much of its prominence and importance from the mismanagement of obstetrical cases and faulty treatment during the puerperal month. There was a growing tendency among general practitioners in the direction of assuming the responsibility of severe obstetrical operations and treatment without skilled counsel, which was not apparent in the field of gynecology. If the experienced accoucheur is not always able to avert danger, damage, or death, how much less could those who only occasionally attend cases of confinement, and are not acquainted with recent obstetrical text-books and literature.

A lengthy reference was made to the faulty management of abortion and its subsequent treatment, in allowing the placenta and secundines to remain undelivered in cases requiring manipulation for their removal.

The doctor declared that a patient was entitled, while undergoing the agony and enduring the exhaustion of lingering or difficult labor, to the best of skill and the most improved instruments, and that the physician who attempted the performance of the capital operations in obstetrics without those necessary factors of success, when they were within his reach, assumed a very grave responsibility.

The paper closed with an appeal for a greater study of obstetrics and its clinical teaching in our colleges in the future, as the best means of preventing many of the conditions which we have to treat in gynecology.

The Society then adjourned to meet at 3 P.M.

THIRD DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the President.

The first paper was read by Dr. J. C. Reeve, of Dayton, Ohio, and consisted of a

REPORT OF A CASE OF EXTRA-UTERINE PREGNANCY—TREATMENT BY THE USE OF ELECTRICITY.

The case was treated successfully by the use of electricity, beginning at what was presumably the end of the third month of pregnancy. It was applied daily, from the 28th of March until the 5th of April. On the 15th of April the patient was decidedly better. On the 11th of May there was a marked change in the condition and appearance of the breasts—more flaccid. June 4th, the tumor was much higher than formerly; oblique diameter decreased two-thirds; menstruation repeated. August 1st, sound introduced, and uterus found to be of normal depth.

The subject of extra-uterine pregnancy was then

discussed by Drs. Wilson, Howard, Reamy, White, Mundé, Battey, and the President.

A NEW METHOD OF PERFORMING DECAPITATION

was the title of a paper presented by Dr. W. L. Richardson, of Boston.

The object of the paper was to show: *first*, that in all cases in which there is no hope of saving the life of the child, the condition of the mother is such as to necessitate operative interference; the child cannot be delivered easily, either by the forceps or version, and if the neck of the child can be reached, the operation of decapitation is indicated. *Second*, this operation is then best performed by means of the decollator of Carl Braun and the decapitating knife of Ramsbotham—the former being used to break the vertebral column, and the latter to divide the soft cervical tissues.

KOLPOEPETASIS VERSUS KOLPOKLEISIS, AS ILLUSTRATED IN A CASE OF ATRESIA OF THE VAGINA WITH RECTO-UTERO-VAGINAL FISTULE,

was the title of a paper presented by Dr. Nathan Bozeman, of New York, which would have been read had the time permitted. He used the word kolpoecpetasis (to stretch the vagina) in contradistinction to the word kolpokleisis (to close the vagina). The case reported illustrated the meaning of both terms.

The following papers were read by title:

"The Relations of Symptoms to Versions and Flexions of the Uterus." By Dr. E. Van de Warker, of Syracuse, N. Y.

"The Justo-Minor Pelvis, with the Report of a Case." By Dr. W. T. Lusk, of New York.

"Chronic Inversion of the Uterus." By Dr. W. H. Byford, of Chicago.

"The Analysis of Five Hundred Gynecological Cases." By Dr. G. H. Bixby, of Boston.

"In Memoriam—Marmaduke B. Wright, M.D." By Dr. T. Parvin, of Indianapolis.

The hour for adjournment having arrived, the President, Dr. T. G. Thomas, expressed his gratification over the success of the meeting, and, thanking the Fellows for the uniform courtesy extended to him, resigned the chair in favor of his successor, Dr. J. Marion Sims, of New York.

Dr. Sims took the chair, and, with a few appropriate words, accepted the presidency of the Society.

On motion, made by Dr. H. P. C. Wilson, of Baltimore, the Society tendered to Dr. Thomas its thanks for the impartial manner with which he had presided over its deliberations.

Dr. Thomas made an appropriate response.

Dr. Wilson gave notice of a proposed amendment to the constitution and by-laws, to the effect that, hereafter, the officers shall be nominated in open Society, and not by a committee on nominations.

The President then declared the Society adjourned to meet on the *first* Wednesday in September, 1880, in the city of Cincinnati.

The following are the officers elected for the ensuing year:

President: Dr. J. Marion Sims, of New York.

Vice-Presidents: Dr. Robert Battey, of Rome, Ga., and Dr. W. T. Howard, of Baltimore, Md.

Council: Drs. W. Goodell, of Philadelphia; E. W. Jenks, of Chicago; A. D. Sinclair, of Boston, and A. J. C. Skene, of Brooklyn.

Secretary: Dr. James R. Chadwick, of Boston.

Treasurer: Dr. Paul F. Mundé, of New York.

The following gentlemen were elected Fellows: Dr. John Scott, of San Francisco; Dr. Edward L. Duer, of Philadelphia; Dr. R. Stansbury Sutton, of Pittsburg, Pa., and Dr. J. W. Underhill, of Cincinnati, O.

The time for holding the annual meeting was changed from the third to the *first* Wednesday in September.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 5 to October 11, 1879.

Sutherland, Charles, Colonel and Surgeon. To report in person to the Comd'g General Mil'y Division of the Pacific, for duty as Medical Director of that Division. S. O. 229, A. G. O., Oct. 4, 1879.

Irwin, B. J. D., Major and Surgeon. To report in person to the Comd'g General, Dep't. of Dakota, for assignment to duty. S. O. 229, C. S., A. G. O.

Wolverton, W. D., Major and Surgeon. To report in person to Comd'g General Dept. of Dakotah, for assignment to duty. S. O. 229, C. S., A. G. O.

Munn, C. E., Capt. and Asst. Surgeon. To report in person to the Comd'g General Dept. of the Missouri, for assignment to duty. S. O. 232, A. G. O., Oct. 9, 1879.

Finley, J. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 230, A. G. O., Oct. 6, 1879.

Moseley, E. B., 1st Lieut. and Asst. Surgeon. Having reported in person, relieved from duty at Fort Robinson, Nebr., and to report in person to the Dept. Comd'r at Rawlins, Wy. T. S. O. 89, Dept. of the Platte, October 6, 1879.

Biart, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one year on surgeon's certificate of disability, to take effect Oct. 1, 1879, with permission to go beyond sea. S. O. 232, C. S., A. G. O.

Appel, A. H., 1st Lieut. and Asst. Surgeon. To repair to Fort Benton, M. T., and to report to the Post Commander for duty as Post Surgeon. S. O. 106, Dept. of Dakota, Sept. 30, 1879.

Phillips, H. J., Capt. and Asst. Surgeon. Died at New York City on October 10, 1879.

Obituary.

EUGENE PEUGNET, M.D.,

FORDHAM, NEW YORK.

Dr. Eugene Peugnet, of Fordham, N. Y., died in his forty-third year, Friday, October 10, 1879. The day previous, while walking on the railroad track, near Mt. Vernon, N. Y., he was run over by the locomotive of an express train, which crushed and partially severed both lower extremities. When picked up he was perfectly conscious, and, with a full appreciation of his desperate condition, gave directions for the treatment of his case, and even discussed with his friends the character of amputations necessary. At his request, the amputations were performed, but he sank and died a few hours afterward. Dr. Peugnet received his preliminary education in New York, and at an early age attended lectures at the College of Physicians and Surgeons, graduating from that institution in March, 1858. After serving a term of interneship in Bellevue Hospital, he commenced practice in this city. At the breaking out of

the war he went to the field as Surgeon of the 71st Regiment, was captured at Bull Run while heroically attending the wounded, and was imprisoned for a considerable time in Richmond, Va. After the war he removed to Fordham, where he continued actively working in his profession until his death. His contributions to science were in the shape of many well-written papers, which were published in THE MEDICAL RECORD, *N. Y. Medical Journal*, and *American Journal of Medical Sciences*. He was a careful student, a terse writer, and possessed an eminently logical mind. He was a member of the different medical societies of this city, and was an active worker in them. As a practitioner he enjoyed a large patronage, and was alike kind to his patients and scrupulously honorable to his professional brethren. His funeral services were held at the Church of St. Vincent de Paul on Monday, October 13th.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 11, 1879.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
Oct. 4, 1879....	0	11	34	1	14	20	0	0
Oct. 11, 1879...	0	14	36	3	21	33	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 8th to October 14th, inclusive, was 76, and the number of deaths that occurred was 37. The total number of new cases for this year to October 15th is 1,479, and the total number of deaths, 517.

OUT-DOOR POOR RELIEF.—For the purpose of affording medical relief to the out-door poor, Cincinnati is divided into twenty-five districts, with a physician attached to each district. These physicians make annually between two and three thousand professional visits. Most of the visits are to persons who would, without them, be obliged to go to a city hospital. Thus, much money is saved to the city and greater satisfaction afforded, in most cases, to the patients. Such systems, more or less modified, exist in many other cities, and they might be still further extended with great saving to the city purse.

THE AUDIPHONE.—This is a new instrument for assisting the hearing of the moderately deaf. It consists of a flexible sheet of hard rubber with a handle attached, the whole resembling very much an ordinary fan. A string is attached in such a way that the rubber plate can be bent over towards the handle to a greater or less curve. The instrument is held in the hand and the top edge laid against the teeth, the convexity of the curved plate being out. The apparatus is quite ornamental, and is probably of assistance in some forms of deafness.

MEDICAL COLLEGE OF THE UNIVERSITY OF VERMONT.—This college graduated a class of forty-nine at its last commencement, having rejected fifteen per cent. The total number of students in attendance was 151.

SEA-SIDE SANITARIUM.—This institution has done a larger work this summer than ever before. Nine thousand five hundred sick children have been taken out on excursions. Sixteen hundred and twenty-five children have spent a week at the Sanitarium; the total cost has been only $6,425.

THE LEPER IN THE MIDDLE AGES.—Among the Christians in the Middle Ages a leper died in the eyes of the law as soon as he became a leper, and the church had a burial service read over him. After this he was separated from men and was virtually dead to this world.

HARVEY'S REMAINS.—It was proposed a year ago to have Harvey's remains removed to Westminster Abbey. Nothing has yet been done towards this, however. The church where they now lie is not in good condition, the vault is wet, and coffin covered with stones.

CHOLERA IN INDIA.—Cholera has broken out among the British troops advancing into Afghanistan.

VERMONT PHARMACEUTICAL ASSOCIATION.—The tenth annual meeting of the Vermont Pharmaceutical Association was held at Burlington, October 7th and 8th.

ALEXIS ST. MARTIN.—It is comforting to learn that this much-talked-of individual is still alive and hearty. He is living at St. Thomas, Province of Quebec, Canada.

NATIONAL BOARD OF HEALTH.—Dr. H. I. Bowditch has written a letter to the *Boston Medical and Surgical Journal* defending the National Board of Health from the many attacks it is now receiving. Dr. Bowditch is convinced that the board has worked hard and economically during the past summer. He is also much impressed with the care that is taken in expending the money at its disposal. As an example, he states that in a bill for personal expenses, the item "for washing" was struck out and disallowed. He credits the board also with having, to a very large extent, prevented the spread of the fever beyond Memphis.

INSANE ASYLUM CONSULTING BOARD.—Board of Consulting Physicians and Surgeons appointed for the Insane Asylums of the Department of Public Charities and Correction: Drs. James R. Wood, Austin Flint, Jr., E. G. Janeway, M. A. Pallen, A. McL. Hamilton, C. I. Pardee, J. P. P. White, A. L. Loomis, Whitman V. White.

A NEW MEDICAL SCHOOL—The College of Physicians and Surgeons—has recently been organized in St. Louis. It opens with a preliminary examination, and promises to demand a high grade of scholarship.

DR. L. P. YANDELL, who has been travelling in Europe and writing home very interesting letters to the *Medical News*, has just returned to his home in Louisville.

THE NEW HAMPSHIRE MEDICAL SOCIETY held its semi-annual meeting on Sept. 17th and 18th. Prof. Hubbard read a paper on the "Life and Character of Nathan Smith." Prof. Dunster gave a lecture upon the "Discovery of Anæsthesia." Other interesting papers were presented.

LIBRARY OF THE FACULTY OF MEDICINE IN PARIS.—This library contains nearly 60,000 volumes, many of them being very ancient works. A new catalogue has recently been completed.—*Bost. Med. and Surg. Jour.*

Original Lectures.

TYPHOID FEVER IN INFANCY AND CHILDHOOD.

A Clinical Lecture delivered in Bellevue Hospital,

By A. JACOBI, M.D.,

Professor of Diseases of Children in the College of Physicians and Surgeons in New York City.

(Reported for The Medical Record.)

Part I.

Gentlemen:—Some of you, it may be, saw this boy last Wednesday. He then presented himself at my clinic at the College of Physicians and Surgeons, and at that time we made the diagnosis of a complication of broncho-pneumonia with typhoid fever. To-day we shall see whether that diagnosis was correct, and for the purpose of determining that question, let me state what his symptoms then were. As he told his story, he remembered that for a number of days he had a sense of chilliness and cold along the back and extending over the whole body. He complained that he was easily fatigued, that he was tired all the time, and that he had a cough at a very early period of his sickness. He had on Wednesday last all the symptoms of pneumonia, partly bronchial and partly interstitial. I found upon one side of the chest somewhat diminished respiration, a few râles, and a very slight amount of dulness upon percussion; no pleural friction-sound. The dulness extended as far as diminution of the respiratory murmur was rather marked. We reached the diagnosis of pneumonia, chiefly bronchial in character. A few minutes later he was again examined, when it struck me that he had symptoms which, to a certain extent, complicated the diagnosis made. I found, when he was laid upon his back, that he complained of slight pain in his right hypogastric region, over the ileo-cæcal valve, and there was also some gurgling present. I also found a few rose-colored spots in the same region, and now at various points over the chest and abdomen a few spots of the same character can still be seen. At that time it was found that the spleen extended longitudinally more than three and a half inches. It now measures, in the same direction, eight centimetres. I remember also that his temperature was 103° F. (39.5° C.). It was taken at about this hour in the afternoon, and we will now compare it with the record which the thermometer gives to-day. The rectal temperature is now 102¼° F.

Let us compare the other symptoms found five days ago with those of to-day.

The temperature is less; there is less dulness all over the left lung; the respiratory murmur is less diminished; and there are less râles than existed last week. Evidently his pneumonia is improving. Furthermore, the spleen is a trifle smaller than it was. The roseola is not so well developed, only a few spots being visible. The pain and gurgling in the right iliac fossa have disappeared. He says that his cough is better, and that he feels better.

I have selected this case for the purpose of directing your attention to a number of cases seen in infancy and childhood, and in which it is not always easy to arrive at a correct diagnosis.

Not infrequently will you see such cases when they are of two or three weeks' standing, and it will be found that the child has been a little languid, has had slight fever, and been a little morose and peevish in the afternoon and evening. In the morning it has probably seemed quite well, but the same symptoms have returned in the after part of the day, and finally, at the end of a week or two, the child in the meantime getting no better, the parents become anxious and send for a doctor, who is expected to make a diagnosis without delay.

It is just such cases, however, which are among the most difficult to diagnosticate, and therefore I wish to speak of those which present greater difficulties in the way of diagnosis than are seen in the case of the boy before us.

FREQUENCY OF OCCURRENCE.

I will first say that typhoid fever is not rare either in infancy or childhood. It appears that, in the same degree that we learn more of the morbid anatomy of diseases, the number of diseases increases which can be diagnosticated. It is a peculiar fact, also, that it is especially the infectious diseases which have been heretofore presumed to be rare in infancy and in childhood. I will, for instance, remind you of the fact that only a few years ago it was taken almost as an axiom that acute articular rheumatism was of rare occurrence in childhood and equally rare in infancy. I believe I have settled that point in infantile pathology, and have proved, in an essay published some time ago (Seguin's Amer. Clin. Lect., Vol. I., No. 2), that acute articular rheumatism is of *very frequent occurrence* in infancy, and is the frequent cause of endocarditis in children of any age. The same is true with regard to typhoid fever. In former years the disease was almost unknown in children. There was a time when it was known as infantile remittent fever. It was known that there were children who were sick for a number of weeks, who had slight fever in the afternoon, followed by a remission in the morning, perhaps an intermission, and it was called sometimes intermittent fever and now and then infantile remittent fever. That was a justifiable diagnosis before the pathological anatomy in a large number of the cases was recorded. I need not tell you that you have a very great advantage over former physicians, who did not know that every disease must have an anatomical lesion at its foundation. A little time before I was a student in medicine there were many fevers, so called, such as catarrhal fever, rheumatic fever, nervous fever, etc., although the names were not based upon any anatomical substratum. You will recollect from general lectures upon pathology that it was left for Rokitansky to find the anatomical lesions which always accompanied certain symptoms, and especially with reference to typhoid fever. Only since that time has it been possible to diagnosticate typhoid fever through the anatomical lesions found in the cadaver, and through symptoms corresponding with those anatomical lesions.

SYMPTOMS OF TYPHOID FEVER IN THE ADULT.

I will now repeat what you would expect to find in a case of typhoid fever occurring in the adult, in order to point out what you can expect in the typhoid fever occurring in the young. I shall not enter upon the pathology of typhoid fever, but simply point out the difference between the infantile and the usual adult manifestations of the disease. You would diagnosticate a case of typhoid fever in the adult by a number of different symptoms, of which the principal are the following:—As a rule there are mild chills at the beginning of the disease. Severe chills may be

present at the onset of typhoid fever, but generally only in the beginning of the second week. As a premonitory symptom, then, there is a universal chilliness and a feeling of uncomfortableness. There is a moderate amount of diarrhœa; there is pain upon pressure in the region of the ileo-cæcal valve, and gurgling in that locality. There is swelling of the spleen, and in the adult the increase in size may be such that the organ measures four, five, six, or even seven inches in its longitudinal diameter. In the adult there is generally found over the chest and abdomen a roseolous eruption, occurring usually about the sixth or seventh day, sometimes as early as the fifth. The eruption lasts about one week, perhaps a little more, and then gradually disappears. There may be hemorrhages from the bowels in the course of the second or third week of the disease, and the affection runs its entire course in from twenty to twenty-one days. Now and then relapses will set in, which it is not necessary to attribute to serious errors in diet or other external causes. It is in the nature of the disease that relapses should take place. There are always some ulcerations of Peyer's patches, and relapses may be developed in consequence of the absorption of disintegrated material from these ulcerated surfaces. Such relapses may occur, so that the patient will pass through two courses of typhoid fever within six weeks. Even a second relapse may occur, and usually the last relapse is less severe than the others. I can state that I have seen a case in which three relapses occurred, the patient passing through four typhoid fevers, and making a good recovery; he still lives in this city. In such cases where you do have opportunities to make post-mortem examinations, you will find that the ulcerations are not limited by the ileo-cæcal valve, but they will be found all along the colon, and frequently down in the rectum. Such a case I saw in the body of a lady who had a severe hemorrhage from the bowels on the ninth day of her typhoid fever. The exhaustion was so great that she was pulseless; but her life was saved by transfusion of blood. Forty-one days afterward she died; that is, on the fiftieth day from the beginning of the disease.

In that case I found the original ulcerations partly healed, some entirely covered with newly-formed tissue, and others newly formed low down in the rectum.

Let me add a few words with reference to the *temperature* in a case of typhoid fever occurring in the adult. In severe cases, and in some epidemics, the course which the temperature pursues is quite characteristic. There is a gradual increase in the morning and evening temperature, which has been said to be characteristic of typhoid fever. I think you will find, when you come to practise, that the picture with reference to regularity in the temperature curve in typhoid fever has been overdrawn. You will not find it as it has been represented. I believe that among twenty cases of typhoid fever fifteen will be found which do not yield the regularity in the temperature curve to be expected from the statements made in text-books, and in articles in medical journals. In some epidemics of typhoid fever the temperature is quite peculiar, and the diagnosis can sometimes be made from it alone, but such instances are rare. During the present autumn I have seen a large number of cases of typhoid fever, and of those there has been scarcely a single one which could be diagnosticated according to the books; that is, from the diarrhœa, or from the roseola, or from the enlarged spleen, and such symptoms as are frequently found associated in cases of typhoid fever. I have seen cases in which there were first and second relapses, and even in those the temperature of the primary attack did not exhibit the regular curve mentioned in the books. I have now and then seen a case in which the morning temperature has been higher than that of the evening, in addition to other irregularities which were present. I make mention of these facts, because I do not wish you to leave the college or the hospital with the feeling that you can always diagnosticate a case of typhoid fever simply by the temperature curve of the first week. You will be obliged to rely upon the bearing of all the symptoms in such cases. For there are a number of cases, even among adults, in which you can reach a diagnosis only by exclusion, being compelled to exclude meningitis, pneumonia, enteritis, etc.

SYMPTOMS OF TYPHOID FEVER IN CHILDREN.

Now let us see what these symptoms amount to in a child; and I will first speak of the mildest cases, which are by no means rare. You will see a child, perhaps one, two, three, four, five, six years of age, in whom simple changes are found by the attendants something like the following. It is noticed that in the afternoon the child becomes restless, perhaps is slightly flushed about the face; has a slight perspiration now and then, and from the appearance of the face it may be inferred that there is a little headache; perhaps that is all, except that the child wants to drink considerably in the afternoon. The next morning the baby seems to be all right, but in the afternoon the same symptoms return, and so the case goes on for a week. Finally, the parents become accustomed to such a trifling sickness, wait another week or two, and the child again begins to eat, and soon is completely well. Such cases are not very infrequent. Parents of a more careful type call a physician when the child has such symptoms, and when he takes the temperature it will be found in the afternoon as high as perhaps 102° or 103° F. If such a child is seen in the morning, when it is apparently perfectly well, the temperature instead of being 100° in the rectum, will perhaps be 100½° or 101° F. As you watch such a case from day to day it may be found that there is no special increase in the temperature of the body, and the child recovers, as a rule, within two or three weeks. Sometimes the disease pursues a more irregular course, and the child may be sick for four or six weeks.

In other cases you will find that the uneasiness and uncomfortable feeling is complicated by a little *diarrhœa* at some time in the progress of the disease. It may be called a teething diarrhœa, or a diarrhœa from a cold, or it may be explained in various ways by the mother or the neighbors. Occasionally there is a little pain over the abdomen, though rarely, however, and now and then there will be some slight tympanites, but as a rule there is none.

Occasionally you will find slight *enlargement of the spleen*, but more frequently there will not be found any increase in the area of percussion dulness over the spleen in a case of typhoid fever in a child, and for two reasons. In the first place, the spleen, in many cases, does not increase in size; and in the second place, it is difficult to find the spleen in a child. The chest is so short, the abdomen reaches high up, and the diaphragm does not make much of an excursion in the respiratory movements. Again, the intestines may crowd upward on the left side so that a tympanitic percussion note will be obtained all the way beyond the line of the diaphragm. It is sometimes impossible to percuss the normal spleen in a

child, and in the same way it is difficult to find the spleen in many cases of typhoid fever occurring in children.

The *pulmonary symptoms*, which are almost invariably present in typhoid fever occurring in the adult, may be and frequently are absent in the child.

There may be *bronchial catarrh*, but it is not at all necessary.

Such children do not wish to lie in bed, and with such mild symptoms they will be found up and about the room, or perhaps lying on the lounge in the afternoon.

The fact is, that the principal anatomical lesions which are found in typhoid fever in the adult are in part or entirely absent in typhoid fever as it occurs in the child.

There may be a little swelling of the spleen, slight tympanites, there may be a few ulcers in Peyer's patches, there may be a few spots of roseola, a slight diarrhœa, *or every one of these symptoms may be absent.*

Therefore, in a number of cases you will be obliged to make very accurate observations regarding the morning and the evening temperature, and carefully study the entire child, in order that you may be able to say that there is positively no pneumonia, meningitis, enteritis, and no acute articular rheumatism. Then, as we do know that typhoid fever may pursue a slow course and extend over three, four, five, or six weeks, you may say that it is a case of typhoid fever.

I have stated that the disease is found in the young, and found very frequently. It is even found in the new-born; but such cases are rare exceptions. I believe that the entire number of cases of typhoid fever reported as occurring in the new-born is only four or five, and to those I can add one which I have never reported. It was the case of a child born of a primiparous woman in the upper part of this city, which at that time was not so populous as it is now. The house was in a bad condition, and the mother was very poorly at the time of her confinement. The baby was taken with a regular fever which could not be easily explained, but which in the beginning of the second week I made out to be typhoid fever. The baby died on the sixteenth day, and at post-mortem examination I found the spleen slightly increased in size, and there was slight ulceration of Peyer's patches, thus proving that the case was one of typhoid fever.

Why is it that the symptoms of typhoid fever are so slight in the child, when certainly children show less resistance to a great many other diseases than is offered to the same diseases by adults? I believe the chief cause must be looked for in the fact that the principal anatomical lesion in typhoid fever cannot be developed to such an extent in the child as in the adult. The glands in the intestinal tract and throughout the entire body are but slightly developed in infants. Peyer's patches are but small and few in number, and sometimes you will find no more than six or seven altogether. Their physiological function appears to be very limited, and thus it is that the pathological changes taking place in them are but slight. For pathological development is, as a rule, only an overstrained development of physiological function, and therefore I say that as Peyer's patches are but slightly developed anatomically and physiologically, they give rise to but slight inflammation, ulceration, etc., in the child.

There is another theory which has been advanced by one of the best men among us, viz., by Gerhardt. His opinion is the following: That the poison of typhoid fever is introduced into the body through the respiratory organs or through the digestive organs; that it is introduced through the respiratory organs in many cases, but in more cases through the digestive organs, especially by means of drinking-water. Now, babies and little children drink but little water, and that little has generally been subjected to boiling, etc., and is in such condition that the infecting material is destroyed. Thus infection in infants is less serious than in adults, and in his opinion this is the reason why typhoid fever is so mild in children.

(To be continued.)

Original Communications.

THREE CASES OF REMOVAL OF THE OS CALCIS.

BY CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

CASE I.—Fanny M., aged 3 years, was admitted into St. Mary's Hospital, July 26, 1874, with a large sinus, from which there was a considerable discharge of pus, situated on the dorsal surface of right foot over the upper border of the cuboid bone. There was also disease of the first metacarpal bone of left hand. The child was unhealthy-looking, having that look so characteristic of the so-called strumous diathesis.

September 24.—Patient was etherized, and an incision made on the dorsal aspect of the foot, so as to pass through the sinus in that situation, and several small pieces of loose bone were removed. It was then found that the disease was confined to the os calcis, and a considerable portion of that bone was removed through the opening made. The portion of the bone left seemed hard, and was supposed to be healthy. The wound was stuffed with lint, and the foot placed on a rectangular splint. After some time the incision closed, except a sinus which continued to discharge pus, and through which diseased bone could still be felt.

In January, 1875, some more diseased bone was removed, the old incision being reopened.

In April the foot was no better than at time of admission. Patient was again put under ether, and an incision made down to the bone on the plantar surface of the foot from a point corresponding to the insertion of the tendo Achillis forward, so as to give sufficient room for the removal of the whole os calcis. This was easily done. The cavity thus left was stuffed with lint, and the foot placed on a splint. The wound was kept well filled with lint, so that it should heal from the bottom. The wound gradually closed, and patient regained good use of her foot, so that she walked without any limp. She was seen more than a year after she left the hospital, and the foot had continued in good condition. There was some flattening of the plantar arch, and some depression below the external malleolus. Careful examination failed to detect any new formation of bone.

CASE II.—Michael D., aged 23 years, was admitted into St. Mary's Hospital January 9, 1879, with disease of the os calcis of right foot of some duration. The bone has been gouged twice previous to his admission into St. Mary's. He is a healthy-looking boy. Nothing can be obtained as to the history of his trouble. His parents are healthy. There is a sinus on the external aspect of right foot over the anterior portion

of the os calcis, through which diseased bone can be felt.

February 1st.—He was etherized, and the old incision on the external aspect of the foot reopened, and the tissues separated from the lateral surface of the bone, when a cloaca was found leading into a cavity in the os calcis, in which there was a loose piece of bone about the size of a small filbert. The walls of this cavity were smooth and hard, evidently composed of sclerosed bone. The wound was washed out with a solution of chloride of zinc, the cavity stuffed with lint, and the foot placed on a splint. Hemorrhage was controlled by an Esmarch bandage. After discharging profusely for some time the incision closed, the sinus assuming the same appearance that it had before the operation.

May 3d.—Patient was again placed under ether, an Esmarch bandage applied, and, assisted by Dr. Watts, the os calcis was excised in the following manner: An incision was made beginning at a point corresponding with the inner edge of the tendo Achillis, and on a level with the upper border of the tuberosity, outward and forward on to the external aspect of the foot to a point midway between the external malleolus and the proximal end of the fifth metatarsal bone, the incision going down to the bone, and the periosteum easily detached. The bone was removed in pieces, and the periosteum was left almost intact. The cavity was filled with soft granular tissue. The walls were sclerosed, and what remained of the cancellous tissue was diseased. After removing the bandage there was a very free hemorrhage from the inner surface of the periosteum. The external portion of the incision was brought together with silver sutures, leaving an opening behind for drainage. The cavity was washed out with a solution of the chloride of zinc, then stuffed with lint and bandaged, and the foot and leg placed on a posterior splint.

May 5th.—Lint removed and drainage-tube inserted.

May 10th.—Incision all healed, except where the drainage-tube was inserted; discharge moderate.

May 29th.—There are now only two small sinuses; one behind where the drainage-tube had been, and one in the location of the old sinus.

June 10th.—Patient up and about.

September 30th.—There is now a small sinus that discharges a little serous fluid. No exposed bone can be detected. He can walk and run about, makes no complaint of any pain, has good use of his foot, but uses his knee awkwardly. He went out of the hospital to-day. I do not think that there has been any regeneration of bone.

Case III.—Mamie S., aged 7 years, was admitted into St. Mary's Hospital January 10, 1879, with disease of the os calcis of right foot. Her father died of consumption, her mother is healthy, but her sister and brother look pale and unhealthy.

Three months ago she began to complain of pain in the heel of right foot, which soon began to swell. Five weeks ago the abscess opened on the back of the heel, and has continued to discharge ever since. At date of admission there was a sinus discharging a small quantity of pus situated on the posterior part of the heel, and through which a probe passed; detected diseased bone.

Patient was a pale, unhealthy-looking child.

March 15th.—Patient was to-day etherized, and, assisted by Dr. Watts, the os calcis was removed in the same manner as in the last case. The bone was found to be diseased throughout. The periosteum was easily separated from the bone. Hemorrhage was controlled by an Esmarch bandage. On removing this there was but little hemorrhage, and only one small vessel had to be ligated. The cavity was washed out with a solution of chloride of zinc. The lateral portion of the incision was brought together with silver sutures, leaving the posterior portion of the wound open for drainage; through this a drainage-tube was passed, and the wound covered with a few layers of carbolized gauze, and over this cotton and a bandage. Limb put into a splint.

March 25th.—Since operation patient has done well. For a day or so after the operation temperature was elevated, but it is now perfectly normal. There is considerable discharge from the cavity of the wound, and there has been some swelling of the foot, but she has suffered no pain.

April 3d.—The line of incision has all closed, except where the drainage-tube is inserted.

May 3d.—Drainage-tube removed, cavity almost filled up, not much discharge. She can bear her weight on the foot, and is walking about.

June 10th.—There is some slight watery discharge from the sinus in the back of the heel. Patient can walk well. Parent removed her to-day from the hospital.

Cases of disease of the os calcis are mentioned by Mr. Hancock where, after gouging or the removal of sequestra, good results have been obtained. Yet, in two of the cases mentioned above, gouging entirely failed to eradicate the disease, and the patients did well only after total resection of the bone. Case No. II., where there was a sequestrum contained in a smooth cavity in the os calcis, would seem to have been a case where the removal of the dead bone should have been followed by a cure; but the sclerosed condition of the surrounding bone and its consequent low state of nutrition, on account of the partial cutting off of its arterial supply, may have been the cause of the failure to reproduce bone, and a no small element in the persistence of the disease. Gouging, or partial exsections of this bone for disease, is looked upon, by those who have had much experience in the surgery of the foot, as not apt to be followed by good results.

Most writers on exsection of the os calcis advocate two incisions, one of which is at right angles to the lateral, and encroaches more or less on the plantar surface of the foot. In Case No. I. the bone was easily removed through an incision confined entirely to this surface; and, although plenty of room was obtained, yet the resulting cicatrix caused a deep depression on the plantar surface which I think a disadvantage. The mode of removal of the bone in the last two cases was that advocated by Mr. Hancock and Mr. Holmes, except that the second incision at right angles to the first on to the plantar surface was omitted, and yet plenty of room was obtained. In all the cases the tendo Achillis became blended with the cicatricial tissue, and thus gained a firm point of insertion. There was some flattening of the heel in all of these cases, but this did not interfere with the usefulness of the foot.

The Doctors in Memphis.—In 1878 all the homœopaths, four in number, ran away when the plague came. Of the forty-six regulars, ten followed in their wake; of the thirty-six who remained, twenty-eight were attacked with the fever and fourteen died. Eight had already had the disease and were not attacked at all, though on duty day and night. The facts corroborate the belief that one attack gives immunity from a second.

SLOW UNION OF FRACTURE OF LEG.

By Prof. GEORGE E. POST, M.D.,

of beirut, syria.

On page 17, No. 452 of the Medical Record, is the report of a case of non-union of fracture of the tibia of twelve years' standing. Reading this case prompts me to report a case of slow union.

John Dwyer, a seaman in the British navy, 24 years old, fell from a horse while drunk, and broke both bones of his right leg at its middle. Two years previous a spar had fallen on the tibia of the same leg, and he appears to have had periostitis without suppuration. He remained for two months in hospital, but was at last discharged cured.

The fracture being simple, was at once put up in a plaster splint, and left for five weeks. On taking it down there was almost as much mobility as at the time of the fracture, and very little callus about the broken ends of the bone. I immediately reset the leg in a firm plaster dressing, which I carried half up the thigh. In ten days from the time of the application of the second splint I was obliged to remove it on account of the intolerable itching, which led the patient to believe that it was infested by innumerable bedbugs. None were found; but the skin of the leg, from the knee to the ankle, was pierced with small punched-out ulcers, giving the limb the aspect of a stick of timber bored by teredos. This made it quite out of the question to attempt the restoration of the plaster apparatus. I applied Cline's splints to the internal and external aspects of the leg, and dressed the limb with zinc ointment. By removing the splints twice daily, and very carefully avoiding all motion of the fragments, the leg was kept tolerably clean. The ulcers, however, did not heal entirely until three months later, and in the meantime the fracture slowly consolidated, with very little callus around the broken ends. It was six months from the time of the injury before he was able to begin to walk. Although there is no angular displacement, and the fracture was quite transverse, and no overriding of the fragments occurred, there is a shortening of half an inch, which I can only explain by the absorption of a portion of the free extremities of the fragments before and during the process of union, such as takes place in the neck of the thigh bone and the humerus in some cases.

The patient finally obtained a useful limb, and the halt in his gait has been corrected by the use of a high-heeled shoe. He expects to return to active duty in the navy.

A CASE OF DISLOCATION OF THE PATELLA UPON ITS AXIS.

VERTICAL DISLOCATION AND A CASE OF DISLOCATION OF THE THIGH DOWNWARD AND FORWARD INTO THE FORAMEN THYROIDEUM, IN A CHILD THREE YEARS AND ONE MONTH.

By ERSKINE MASON, M.D.

These two rare cases, as to character and age of one of the patients, having lately fallen under my care, I deem them worthy of being placed upon record, as so few of a similar nature have been reported.

DISLOCATION OF THE RIGHT PATELLA UPON ITS AXIS.

While making my visit at the Roosevelt Hospital on the afternoon of Sept. 4, 1879, a strong muscular man, aged 37 years, blacksmith by occupation, was brought into the ward, who had met with this accident about an hour before admission. While shoeing a horse (the hind leg of the animal being between his knees) the horse became restive, and, almost falling, pressed his leg heavily upon the under edge of the right patella, thus producing the dislocation. Upon entering the hospital he complained of great pain in the knee, especially when the bone was touched. The limb was extended, and the patella, with its anterior surface outward and in a perfectly vertical position, was found firmly locked in the inter-condyloid fossa. The tendon of the quadriceps was twisted upon itself, prominent, and felt like the ligamentum patella, which was also raised and very tense.

All examination being exceedingly painful, he was at once placed under ether, when I thoroughly examined the parts and proceeded to the reduction of the bone. First I flexed, and then, while extending the leg, made pressure upon the patella; this failed. Second attempt, I flexed the leg rapidly, and then strongly extended the leg; this seemed to unlock the bone a little from its fastening, but lateral pressure failed to reduce it; then, while extending the limb, I firmly crowded down the rectus, and with the assistance of the other hand and that of Dr. Watts, pressure being made against the bone, it readily passed into place. The chief aid in reduction, in my opinion, was the crowding down of the rectus. The after-treatment consisted of the application of a posterior splint and an ice-bag on the limb for twenty-four hours. No ill-consequences followed, and he left the hospital on the twelfth day with perfect use of the joint.

DISLOCATION OF THE RIGHT THIGH DOWNWARD AND FORWARD INTO THE FORAMEN THYROIDEUM, IN A BOY AGED THREE YEARS AND ONE MONTH.

This patient I saw in consultation with Dr. Geo. H. Basly. The manner in which this injury occurred could not be satisfactorily accounted for. All the parents could state was, that while in the country one afternoon he was playing in a room with some trunks and boxes, and, as the child states, he fell. He complained of no pain, and the only thing that attracted the attention of the parents was the manner in which the child stood and walked. A glance at the child in the erect position revealed at once the character of the trouble which the doctor told me I was to see. The limb was abducted, thigh slightly flexed, and the foot turned a little outward, while there was a depression where the prominence of the trochanter should be seen, and the head of the bone was felt in its abnormal position. By measurement the limb was nearly an inch longer than the other. The child complained of no pain except when the head of the bone was pressed upon. He could run about the room and go up and down stairs without much difficulty, and seemed rather amused at the position of his limb and the peculiar gait when walking.

On September 17, 1879, the fourth day of the injury, ether having been given (up to the point only of primary anæsthesia), I flexed the thigh at a right angle to the pelvis, slightly abducted and gently rotated inward; adducted, and the head of the bone passed at once into the acetabulum. The whole operation did not consume more than a minute. These manipulations are those laid down by Bigelow in his work on the Hip; and in this connection I might say that in two other cases of dislocation upon the dorsum in adults I have effected ready reduction by the method he advocates; while in one case of dislocation upon the pubes, reported in the Record, April 8, 1876, various manipulations were resorted to before reduction

was accomplished. After a somewhat extended research through the literature of dislocations of the thigh, this is the youngest person with dislocation into the thyroid foramen, with the exception of the one reported, of an infant six months old, by Powdrell, in the *Lancet* for May 16, 1879, that I have found recorded.

Reports of Hospitals.

NEW YORK HOSPITAL.

Swelling of Costo-Sternal Joints—Effect of Salicylate of Soda.

(Reported by T. Roland Chambers, M.D., late House Physician.)

Helen Simpson, æt. 55. History of intemperance and rheumatism. Last rheumatic attack eight years ago. Cough, with frothy sputa, for nine months. Two months ago this cough became very painful. At that time tumors appeared at edge of sternum, which have steadily increased in size and sensitiveness. During the past week there has been persistent nausea and vomiting, and no sleep for three days.

On admission, patient was much emaciated. Features of face show that she has been, and is suffering intense agony. Every respiratory effort is painful, and motion of the right knee or either ankle elicits a cry. Temperature, 103.5° F.; respiration, 35; pulse, 125. On the right side, at the articulation of second costal cartilage with sternum, is a prominent circumscribed swelling, tense and fluctuating, about the size of a hickory-nut. It crepitates with each respiration. The cartilage is drawn in with inspiration, and passes out beyond sternum with expiration. The same kind of tumor and similar symptoms exist at third and fourth costo-sternal articulations, same side. The aggravation of symptoms during the past week is accounted for by the pneumonia which undoubtedly exists in both upper lobes of right lung. There are heart murmurs.

The points of interest are: the location of the swellings; the fact that two ribs are, as it were, floating in a fluid, and are drawn in with inspiration, and pushed out with expiration; that after four days' administration of salicylate of soda, sixty centigrammes every two hours at first, and less frequently later, the swellings almost entirely disappeared, as well as the luxation of the cartilages. The patient died, however, and the autopsy revealed gray hepatization of both upper lobes, right lung; atheroma in heart and vessels; general parenchymatous and interstitial changes in the various organs. The opposed surfaces of joints, where the swellings had been, were found to be the seat of calcareous degeneration.

The right kidney was found with its long axis lying transversely.

Three Cases of Suspected Aneurism.

August Müller, æt. 46, sailor; died April 6th. Complained of pain, cough, dyspnœa, anorexia, aphonia, loss of health and strength. Examination reveals slight paralysis of left vocal cord, visible pulsation of arteries in neck, systolic bruit distinct all over chest; and the finger, pushed in over the episternal notch, felt the aneurism itself. The left radial is very much smaller than the opposite pulse, and the sphygmographic trace made the descent of the left to be straight, while the right was a broken line.

The diagnosis here seemed plain—a large aneurism of the arch sufficient to interfere with the left recurrent nerve. The man died suddenly, and autopsy revealed a very "moderate" dilatation of the upper part of the arch; but the opening of the left subclavian artery was only about one-tenth the diameter of the right. The interior surface of the aorta was very rough (atheromatous).

William Proctor, æt. 32, sailor; died June 2d. Complained of pain, cough, dyspnœa, and anorexia. Examination revealed a loud systolic bruit all over the chest and down the spine. In addition, a double murmur at apex. This man's chest had considerable dulness, which was not marked in the case of Müller. The right pulse here had a single break in the descent, while the left had two breaks; both had same length of ascent according to the spygmograph. To the finger, the right seemed to be slightly smaller than the left pulse.

Dr. McLane's diagnosis was hypertrophy and dilatation of heart and *no* aneurism; but a number of others, after careful examination, thought there was a small aneurism, possibly of the first part of the arch. Autopsy showed Dr. McLane's diagnosis to be correct. The valves were atheromatous, and if there was any dilatation of the aorta, it was so slight as not to be called abnormal.

Thomas Farrell, æt. 35, huckster; died September 24th. This man's figure was like an inverted L. The cervical spine was at right angles with the lumbar. The house-physician admitted and discharged the patient as a case of caries of the spine. There was double kyphosis at seventh cervical and ninth dorsal regions. The man's condition was such that an extensive examination was impossible. He had crowing inspiration and a peculiar high-pitched tone of voice, as if there was pressure on the trachea somewhere. He had cough with tenacious sputa, which at times, and especially latterly, contained blood and small, dark blood-clots. The physical signs pertaining to the circulatory apparatus were masked by the peculiar shape of the chest. The abdominal aorta could not be gotten at by the stethoscope. It was difficult to reconcile his frequent dyspnœas (controlled by a hypodermic injection of morphia) with such a steadily progressing disease as caries. There was nothing noted in the radial pulses. Finally, the man died in an attack of dyspnœa, and blood came from the mouth, then thought to be from a bitten tongue; but post-mortem examination shed a light on everything except the caries of the spine. The family objected to having his unsymmetrical curve destroyed, and we were deprived its thorough study, but they could not prevent our seeing a large clot protruding through an opening in the aorta, at a point just below the opening of the left subclavian artery. The opening was large enough to admit a hickory-nut, and it communicated with the sac of an aneurism large enough to hold two walnuts. It contained a black clot commencing to organize toward its deeper part, where it lay upon, and had eroded three rings of the trachea, and had opened into its calibre in two places between the rings. The mucous membrane for a considerable area was much congested, and the rings were calcareous.

Dr. Oliver Wendell Holmes has recently passed his seventieth birthday; Dr. Willard Parker recently began his eightieth year. Both are still vigorous men, and Dr. Holmes is expected soon to publish another volume.

PENNSYLVANIA HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

PATULOUS AORTIC VALVE IN CHRONIC BRIGHT'S DISEASE.

THE patient was found lying unconscious in the street. When brought into the hospital his pupils were contracted and his breathing stertorous. The radial arteries were very tortuous. One sixth of the bulk of the urine was found to consist of albumen. The feces were passed involuntarily.

Immediately upon admission the man was given gtt. ij. of croton oil in a teaspoonful of olive oil, and a dose of the following prescription:

℞. Spts. chloroformi (B. P.).....gtt. xxx.
Acid. benzoici.....gr. vj.
Potas. bicarb.....gr. xxx. M.
S. Drops ten every two hours in water.

For sustenance the patient took three pints of milk and one pint of beef-tea, together with f ʒ j. of alcohol, the milk and beef-tea being given in small quantities at short intervals.

Atropia was injected into the eyeball, but did not dilate the pupil sufficiently to enable the visiting physician to examine the eye-ground with the ophthalmoscope.

When examined carefully on the day after admission, the right side of the patient's mouth was found to be paralyzed. So, too, were the right arm and right leg—the leg less so than the arm. The man was still dull and inattentive. His respirations were forty-four to the minute, and his pulse 116. The radial arteries wound along like worms, and pulsated visibly from the elbows to the wrists. Another curious fact in connection with the case was the presence of rounded, hard tumors on the back of his elbows and over his phalangeo-metacarpal joints. One of these tumors was opened, and a very thick, creamy matter escaped, which yielded crystals of tyrosin under the microscope. It was impossible at that time to detect any murmur of aortic regurgitation.

In endeavoring to reach a correct diagnosis in the case, the visiting physician was led at first to regard the case as one of opium-poisoning, owing to the marked contraction of the pupils; but this view of the case was invalidated by the facts of paralysis and stertorous breathing. It was finally determined that the case was one of chronic Bright's disease, and the opinion unhesitatingly advanced that further examination would reveal the presence of tube-casts, and that when the more violent symptoms had subsided a regurgitant cardiac murmur would be heard. Mention was made of the statement advanced by Walsh, of London, viz., that the tortuousness of the arteries present in the case is only present in patulous aortic orifice and coarctation of the aorta.

Subsequent events proved this diagnosis to be the correct one.

The patient's comatose condition, dependent upon the uræmic poisoning, was found to yield very markedly to the following prescription, recommended by Dr. George Johnson, of London, viz.:

℞. Scammonii resinæ.....gr. v.
Potassii bitart.....gr. xx.
Zingiberis.....gr. viij. M.
S. To be administered when needed.

OPHTHALMIA NEONATORUM.

A solution of nitrate of silver (three-quarters of a grain to the ounce) is injected under the lids twice a day.

For the lids themselves the following is usually employed:

℞. Sodæ boratis.....gr. xij.
Zinci sulphatis.....gr. j.
Aquæ camphoræ.....f ʒ j.
Aquæ destillatæ.....f ʒ j.
M.
S. To be applied to the lids two or three times a day.

A plan of treatment highly recommended by Mr. Dickson, of London, viz., the injection between the lids every half-hour of a solution of alum (from five to eight grains to the ounce), the strength of the solution to be gradually diminished as the case gets better, has also been tried with very gratifying results.

THREE INTERESTING CASES OF SPINAL DISEASE.

CASE I.—The patient, a sailor, was brought into the hospital with a history of a fall of thirty feet from the rigging of his ship while at sea. He fell partly on his head and partly on his back. When picked up he was unconscious, and remained so for fifteen minutes. Upon regaining consciousness he found that his right arm and leg were entirely paralyzed, and the left arm almost entirely so. The patient received no treatment whatever while at sea.

Since admission the patient had been carefully examined and found to be free from any disease of his heart, lungs, liver, or kidneys. The ophthalmoscope revealed a slight optic neuritis, but not enough to indicate any serious disease of the brain. When he walked he carried his head somewhat forward. The effort to straighten the head gave the patient pain. At the point of junction of the cervical and dorsal spine some thickening and induration were found. The right arm had not entirely recovered its power. He was unable either to extend or close the fingers of that hand. There was some atrophy of the muscles of that hand. The circulation of the same limb was also found to be very defective. The left hand and arm exhibited the same conditions, but to a lesser degree than the right arm. The man's walk was peculiar. The right leg was stiff and trembled when he walked. Upon stripping the limb the feet were found to be abnormally extended. Attempts to bring the foot up to a right angle were attended with great trembling of the member and marked tension of the tendo Achillis. The tendon reflex of the patella of both legs was most marked. There was no decided impairment of the sensation of either touch or pain in the feet. Contraction of the muscles under the faradic current was slightly impaired in both legs and arms. Now and then trembling could be produced by pressure upon the lower part of the spinal column.

In debating the case, two difficulties were encountered. 1st. In connection with the nature of the original injury; and second, as regarded the present nature of the disease. Concerning the first point, concussion of the spine seemed hardly possible, since it could not account for the paralysis of the muscles of three extremities. It seemed more probably to have been a case of apoplexy of the cord. It was concluded, however, that the effusion of blood could not have been a large one, since there was no paralysis of the left leg, no urinary difficulty, and no pronounced tendency to the formation of bed sores.

Concerning the second point to be decided, it was thought that the symptoms then present pointed conclusively to an involvement of the lateral columns. This opinion was strengthened by the presence of spastic muscular contractions. The absence of anæsthesia proved that the posterior columns could not be seriously affected, and the absence of analgesia seemed to show the same to be true of the gray matter. It was thought that simple concussion of the spine was sufficient to produce inflammation of the lateral columns.

As soon as the patient entered the wards a blister was applied to the seat of induration in the back, and bromide of potassium administered internally. When it was seen that inflammation of the cord existed, one-sixteenth of a grain of the bichloride of mercury was ordered four times a day. Later he was put upon gr. x. of potassium iodide thrice daily, which dose was subsequently doubled. It was remarked, in connection with the early history of the case, that ergot and belladonna would have been the proper remedies to employ immediately upon the reception of the original injury.

For the future occasional blisters were ordered and rest was enjoined. Strychnia and electricity were regarded as injurious.

Case II.—A farmer, with a good family history, who had spent a day in very hard work and during the following night had been much exposed to cold and wet. This imprudence, which took place eleven months before his admission to the hospital, was followed by loss of power in the lower extremities and complete paralysis of the bladder.

For two or three months after this period the patient had shooting pains in his legs and was much troubled with nocturnal delirium.

The man was carefully examined after his admission, and found to be suffering from marked paraplegia without involvement of the rectum or bladder. The strong faradic current elicited no response whatever in either leg, except from the flexors of one of the big toes; using the continued current the same results were observed.

The case was regarded as a typical one of acute spinal paralysis—a rare form of disease in the adult—in which the lesion was in the anterior horns of the spinal cord. The location of the lesion was thought to account for the entire loss of electro-muscular contractility, while sensation was so little impaired. It was also thought to account for the absence of rectal and vesical difficulties and of bed-sores.

Case III.—A shoemaker, who stated that his troubles dated back to an attack of rheumatism in his legs. This rheumatic attack lasted about three weeks. Pains in the back and legs were associated with the rheumatism.

When admitted to the hospital the man complained greatly of pains in the limbs and back, and of loss of power in the lower extremities. He still walked with difficulty and pain, but the local tenderness and discoloration had gone. It was difficult to decide whether the pains complained of were due to the rheumatism in the extremities. It was concluded that they were not. The man improved very rapidly under the use of the iodide of potassium and ergot, and was discharged entirely cured, as it was supposed. Ten days afterward, however, he was again admitted. Upon questioning him closely it was discovered that he had spent all the time since his discharge in walking about the city in search of employment.

After his return to the wards he began to lose power in his legs steadily. The pains in his back and legs returned, and he spoke of a feeling of great constriction around his waist. Still later the legs began to atrophy, and still the loss of power remained. The electro-muscular contractility was very much diminished, while the sensibility seemed to be slightly deficient in both of the lower limbs. The capillary circulation was very defective, the blood circulating very irregularly in the superficial tissues. Reflex sensibility still remained intact. The muscular sensibility had gradually increased.

It was concluded very early in the progress of this case that it was one of rheumatic paralysis of the cord, or rheumatic spinal myelitis.

Anatomically speaking, it was pointed out that the lesions in Cases II. and III. were the same, both being located in the anterior horns, but in Case II. there was no rheumatism, and the spinal paralysis came on at once; while in Case III. the rheumatic origin was plain, and the spinal complications came on at a later period. The treatment of Case III. was by gr. xv. of the iodide of potassium thrice daily, with a little iron and locally friction.

In the discussion of Cases II. and III. some very interesting points were brought out. Particular attention was directed to the rapid atrophy of the muscles of the lower extremities in both of the cases. This atrophy was emphasized as being the most typical and constant symptom of this class of affections, the rapidity with which this atrophy progresses being in proportion to the acuteness and persistency of the attack.

Another fact, to which particular attention was directed, was that this atrophy, as a general rule, is not permanent. In cases where recovery has been more or less complete, the limbs are found to have regained, to a greater or less degree, their normal shape and power, the completeness of the return of the limb to its normal shape being dependent, of course, upon the completeness of the patient's convalescence. Complete restoration to power and health was regarded as rare. It was argued that the real extent of the damage done depended upon the number of trophic cells which had been destroyed. If enough of them remained intact, when the morbid process had ceased, to minister sufficiently to the supply and nourishment of the atrophied muscles, it was easy to restore their for a time lost functions by means of proper nerve-food, friction and electricity in the shape of galvanism, and in the later stages by the hypodermic use of strychnia.

The question arising as to whether the tape-measure was the only means of judging definitely of the condition of the affected muscles, it was pointed out that when it was found upon trial that the faradic current when applied to the affected muscles began to give better results, and when the muscles began to respond and contract, though feebly, it might be accepted as a sure sign of returning health, for it proved conclusively that the muscles were becoming more active, and that the paralysis had reached its height.

It was thought that the same conclusion could not be drawn from the use of the continuous current, the muscles responding to this current so soon that it could not be regarded as any gauge at all.

Attention was called to the facts of the entire absence of rectal and vesical paralysis and of bed-sores in Cases II. and III.

In one point it was shown that these two cases had not been typical ones of their kind, viz.: in so far as the reflex nervous functions had not been in the least impaired in either case.

The treatment was limned out as having consisted at first of local bloodletting in the neighborhood of

the spine, occasional purging, and large and continuous doses of ergot. This at first; later the indications were met by large doses of the iodide of potassium, and by the application of systematic friction to the legs. Later still, it was thought that small doses of strychnia should be administered hypodermically, and when muscular motion returned, that the faradic current should be employed.

ANTEFLEXION OF THE UTERUS.

The patient was a servant-girl, twenty seven years of age, with a history of menstrual irregularities extending through a period of seven years. Accompanying the flow there had been occasional suprapubic pain. Six months before her admission to the hospital this pain had become constant and she had been compelled to give up all work. She was obliged to pass her water twenty or thirty times a day. The urine was examined, and found to be entirely normal in all respects.

Vaginal examination showed the uterus to be a little lower than natural; the finger encountering the fundus in the anterior cul-de-sac. Together with this anteflexion there was some catarrh of the bladder, while the woman was anæmic and hysterical, and suffered greatly from constipation.

It was concluded that the first thing to do was to build up the woman's general health. Rest in bed was enjoined; thrice a day she took gr. iv. of the ammonio-citrate of iron with gentian, and the following prescription was employed, viz.:

℞. Magnesii sulphat.	ʒ vj.
Acid. sulph. dil.	ʒ ij.
Ferri sulph.	gr. xij.
Quiniæ sulph.	gr. xij.
Syrupæ zingiberis.	f ʒ j.
Aquæ q. s. ad.	f ʒ vj.

M.

S. A tablespoonful in ice-water thrice daily.

To cure the anteflexion, instead of introducing a pessary, it was determined to persuade the woman to teach her bladder to hold gradually more and more urine. It was reasoned that when the bladder could hold twelve ounces, the anteflexion would be largely reduced.

Progress of Medical Science.

A NEW METHOD OF PREVENTING STRANGURY FROM THE USE OF CANTHARIDES.—M. Guyot-Dannecy, of Bordeaux, recommends a mixture of cantharides with carbonate or bicarbonate of soda for vesicating plasters. He uses equal parts of soda and powdered cantharides, strews the mixture on adhesive plaster, presses on it with the hand until the powder adheres to the plaster, and then covers it with oiled paper. Vesication is produced as rapidly and as certainly as when cantharides alone is used, and the experience at Bordeaux seems to show that the soda used in this manner is a much better preventive against the bad effects of the Spanish fly on the bladder, than is camphor.—*Lyon Médical* and *L'Année Médicale*, June, 1879.

RENAL CALCULUS FORMED OF INDIGO.—Dr. Bloxam found, at an autopsy on a woman of middle age a calculus in the right kidney. It was of a dark-brown color, but covered in parts by a thick, granular, bluish-black coating. Drawn over paper it left a bluish-black mark. Chemical and microscopical examination showed it to be composed of blood-clot mixed with a little crystallized phosphate of lime, and a large quantity of indigo disposed in the shape of a thick coating. No explanation is given of the significance of the presence of the indigo.—*Revue Médicale*, July 26, 1879.

ON THE FUNCTIONS OF THE TRUE AND ACCESSORY NUCLEI OF THE HYPOGLOSSAL.—In his valuable researches on the bulbar region, M. Duval discovered in addition to the true nucleus of the hypoglossal nerve, which is found in the floor of the fourth ventricle, within and in advance of the nuclei of the mixed nerves, an accessory nucleus situated in a more central portion of the bulb; here with other nuclei, like it, derived from the head of the anterior cornu, it forms a small gray mass known, since the labors of Stilling, Kölliker, etc., as the antero-lateral nucleus. These two nuclei, the true and accessory, are bound together by fibres.

M. Duval has recently had occasion to examine a subject who had suffered from glosso-pharyngeal paralysis, and found that the lesions were not the same in the true and accessory nuclei; in the former no cells remained, in the latter there were still some cells which retained their original form and volume. On investigating the symptoms observed during life, he found that the patient, although unable to pronounce a single word, still retained some use of the tongue: he could suck an orange, and give various exaggerated movements to the organ. M. Duval thinks that it may be inferred from this, that the true nucleus presides over phonation and the accessory nucleus over deglutition.—*La Tribune Médicale*, July 27, 1879.

THE STRUCTURE OF THE BROAD LIGAMENT.—From a large number of pathological and anatomical observations, M. Guérin concludes that phlegmonous inflammation of the broad ligament is, and must be, a rare affection. After pelvic cellulitis, indeed, pus may be found in the broad ligament, but the quantity is small, and this is evidently not the starting-point of the disease. The formation of the ligament is not such as would favor phlegmonous inflammation, it being composed almost entirely of aponeurotic layers; but little cellular tissue is found here, and what is present is dense and firm. All attempts to inject melted tallow or colored water into the substance of the ligament have failed, except when the liquid was simply forced into the subperitoneal tissue; then, indeed, it might be made to appear at the anterior abdominal wall. Most of the symptoms attributed to phlegmonous inflammation of this ligament belong to another affection, which he calls *adeno-phlegmon juxta-pubien*, and which has its origin in the neck of the uterus; a lymphangitis first appears, then an inflammation of the lymphatic glands near the horizontal ramus of the pubis, in the neighborhood of the obturator foramen, and of the crural ring.—*La France Médicale*, July 16, 1879.

THE TRANSMISSION OF THORACIC SOUNDS TO THE ABDOMEN IN CASES OF ASCITES. At a recent meeting of the *Académie de Médecine*, Dr. Vidal read a paper on this subject, drawing the following conclusions:

1. The transmission to the abdomen of thoracic murmurs may assist in the diagnosis of beginning ascites.

2. The diminution in the intensity of the transmission of heart sounds, while the respiratory murmurs continue to be distinctly heard in the abdomen, indicates the commencement of hydropericardium.

3. The persistence of the transmitted heart-sounds, while the respiratory sounds are diminished or lost, would indicate the presence of pleuritic effusion.

It would seem from this that the transmission is probably effected by means both of the intestine and of the liquid under certain conditions, with which we are not fully acquainted, but which are similar to those described by MM. De Mussy, Raynaud, and Baccelli, in their works on the transmission of sounds in ægophony, and in certain kinds of pleurisy. The vibrations are transmitted over relatively considerable distances through the gas contained in the intestines, to the liquid, and thence to the ear of the observer.—*Gazette Médicale*, August 9, 1879.

Treatment of Cardiac Dyspnœa.—The medicine which has proved most valuable in the experience of Prof. G. Sée, in cases of cardiac dyspnœa, is iodide of potassium. This is especially useful when the dyspnœa is due to a lesion of the heart tissue itself (dilatation or degeneration of the muscle); but it is also of value in valvular lesions. The iodide acts by augmenting, or rather liquefying the bronchial secretions, by which the tubes are rendered more permeable to the air. Iodism may be prevented by associating opium with the salt. Digitalis may be added to the mixture with great advantage, the one relieving the heart, the other the lung.—*Le Concours Médicale.*

Poisonous Paper Collars.—It has long been a prevalent idea that paper collars contained poisonous ingredients, and were a somewhat dangerous article of toilet. A writer in *The Lancet* has investigated the matter with the following result: he finds that the glazing is done with sulphate of baryta, which is present in large quantity. This salt is very insoluble, and therefore in itself innocuous. It may, however, be combined with other salts which will make it soluble, in which case it would cause great irritation. No arsenic was found at all.

A Case of Hyperpyrexial Temperature.—Dr. Graham Steell, of the Manchester Royal Infirmary, reports in *The Lancet* an interesting case of extremely high temperature. The patient was a woman, aged twenty, who first came under treatment for a slight attack of erysipelas. She recovered from this, and, about two months later, began to suffer from retention of urine and cystitis. While treating her for this, she was discovered to have a prolapsed ovary, which occasionally caused her much pain. After being somewhat relieved of these troubles, it was noticed that her temperature became variable, and for the next three months it oscillated between normal and 108°, 112°, and once 113°. She suffered from rigors, during and after which the temperature rose. Its course was somewhat like that of pyæmia, and the fever generally ended in a profuse perspiration. No abscess or evidence of any organic lesion could be found. The patient, until the last part of the illness, did not show any signs of being severely sick. The rises in temperature were of short duration.

The patient finally began to show cerebral and spinal symptoms, and the case looked very much like one of tetanus. Recovery, however, at length took place.

The case, though not completely reported, adds to the evidence in favor of the existence of very high temperatures in the human body.

Influence of Sugar Injected into the Veins on the Renal Secretion.—In two papers read before the *Académie des Sciences*, in July, MM. Richet and Moutard-Martin reported the results of a series of experiments with the intra-venous injection of sugar. They found that these injections produced almost instantaneously very marked polyuria. The experiments were performed on dogs; a canula was introduced into each ureter of the animal, and the quantitative variations of the urinary secretion were determined by counting the drops that escaped from each canula in the course of a minute, and by measuring the total quantity excreted in a fixed time. The intensity of the polyuria produced is indicated by a few examples. In one case, after the injection of a considerable, but not specified quantity of sugar, a dog excreted 70 c.c. by a single ureter in ten minutes; at that rate about twenty litres would be passed in twenty-four hours by both ureters. In another case, a dog, after having excreted in three hours by the two ureters 28 c.c. of urine, received one intra-venous injection of 44 grammes of sugar dissolved in a small quantity of water, and in the half hour immediately following, it excreted 364 c.c. of urine.

The polyuria appeared very soon, as a rule about a minute and a half after the injection, and when only a small quantity of sugar had been injected; it also disappeared rapidly. The injection of a small quantity of sugar, about 0.50 grammes for 1 kilo. of the weight of the animal (7½ grains for every 2½ pounds), was sufficient to produce marked polyuria, though this was of course not so excessive as in the above examples. The diuresis could not be attributed to the water employed to dissolve the sugar, as injections of even ten times the quantity of water employed in the experiments failed to produce any appreciable augmentation of the urinary secretion. It is scarcely necessary to add that from the second minute after the injection the urine contained very large quantities of sugar. As the urine increased in quantity, it contained proportionately less urea, but this apparent diminution was more than compensated by the augmentation of the urinary secretion; the total quantity of urea excreted was increased as well as the water. Hence, the authors claim that their experiments prove that experimental glycæmia produces not only glycosuria, but also polyuria and azoturia.—*Gazette Méd. de Paris*, Aug. 23, 1879.

Treatment of Obstinate Sciatica by Injections of Nitrate of Silver.—M. Damaschino has very frequently employed this method of treatment, which was first recommended by Luton, of Rheims. He injects five drops of a 25 per cent. solution of nitrate of silver into the subcutaneous cellular tissue, usually close to the point of emergence of the affected nerve. Immediate relief from the neuralgic pain is almost invariably obtained. The pain caused by the injection is sometimes very severe, and a small, sharply circumscribed phlegmon forms, which often terminates in suppuration. The pus usually escapes by the orifice left by the needle, but it may be necessary to use the knife. In a case recently treated by M. Damaschino in the hôpital Laennec, only two drops of the nitrate of silver solution were injected. The pain caused by the injection was very acute, but the neuralgia was immediately and permanently cured. A small abscess subsequently formed and had to be freely opened. Several similar cases are reported in the thesis of M. Dureau (Paris, 1877).—*Gazette des Hôpitaux*, Aug. 23, 1879.

The Physiological Action of the Bromhydrate of Conia.—The following are the conclusions drawn by M. J. L. Prévost from his experiments on animals with this drug:

1. The paralysis produced by the bromhydrate of

conia is the result of paralysis of the motor nerves, which also lose their excitability.

2. When the circulation is cut off from the hind quarters of a frog, the nerves being left intact, and a dose of from fifteen milligrammes to two centigrammes of the bromhydrate of conia is introduced under the skin of the back, the nerves of the hind legs remain excitable, and these limbs react to excitations applied to the front legs, although the latter are themselves paralyzed by the poison.

3. This effect is rendered more manifest when the frog is poisoned with strychnia; the effects of strychnia and of bromhydrate of conia can then be observed simultaneously in the same animal.

4. The pneumogastric is paralyzed before the other nerves, and its excitability also reappears more promptly when the elimination of the poison takes place.

5. The urinary, salivary, and lacrymal secretions are stimulated by the bromhydrate of conia.

6. The excretion of the poison in the urine has been demonstrated by the experiments. The urine of a cat poisoned by the drug was evaporated to a syrupy consistence in a water-bath, and injected under the skin of several frogs, producing in these animals the characteristic symptoms of poisoning by bromhydrate of conia.

7. The glandular nerves retain their excitability, and secretion can be excited by the application of electricity to them. When the vagi and the nerves of the striated muscles had lost their excitability, electric excitation of the cervical sympathetic and of the tympanico-lingual nerve caused a flow of saliva. Excitation of the peripheral ends of the nerves of the fore leg caused secretion of sweat in the plantar surface of a cat's paw, when electrization of the nerve no longer excited muscular contractions.

8. When warm-blooded animals are poisoned by the bromhydrate of conia, and artificial respiration is kept up, the heart shows the greatest power of resistance to the poison; it is the ultimum moriens. It continues to beat even longer than the normal heart after the artificial respiration is discontinued, or when it is removed from the body. In rabbits and cats, direct electrization of the heart by a strong induction current did not produce paralysis, when the poisoning had been pushed to complete loss of excitability of the sciatic nerve. The result was different, however, in the case of a cock. When, in rabbits, the excitability of the sciatic was not entirely destroyed, the heart could be paralyzed by direct electrization, but only after repeated trials.

9. It is very doubtful whether the nerve centres are directly affected by the bromhydrate of conia. The convulsions observed in warm-blooded animals in the last stage of the poisoning are the result of the asphyxia consequent on the paralysis of the mechanical apparatus of respiration. They can be prevented by artificial respiration.

10. The muscular contractility is not diminished by the bromhydrate of conia.—*Archives Générales de Médecine*, September, 1879.

Removal of an Extensive Sarcoma of the Chest.—At the recent Congress of the Society of German Surgeons at Berlin Dr. Kolaczek, of Breslau, reported the case of a woman, aged forty-eight years, from whom he had removed an enormous sarcoma, which was situated on the left side of the thoracic wall anteriorly. In removing the tumor it was necessary to resect the third, fourth, fifth, and sixth ribs, with a portion of the costal pleura. The opening left was as large as the hand; it was covered with a skin flap, a drainage-tube was introduced and brought out through a counter-opening situated posteriorly, and Lister's dressing was applied. The patient recovered. The skin flap adhered to the lung and pericardium, and with each inspiration a depression is produced in which the two fists can be put.—*Le Progrès Médical*, Aug. 30, 1879.

Extirpation of the Larynx and of the Pharynx.—At the recent Congress of German Surgeons in Berlin, Professor Langenbeck stated that he had performed the operation of extirpation of the pharynx three times, and that he considered the operation justifiable, although all his cases were unsuccessful. The following are the steps of the operation: First of all, tracheotomy must be performed, and the canula of Trendelenberg introduced; then an incision is carried from the body of the lower jaw, midway between the symphysis and the angle, toward the greater cornu of the hyoid bone, and thence along the anterior border of the sterno-mastoid as far as the upper extremity of the tracheotomy incision. Next, the submaxillary gland must be removed, the lingual artery tied, the stylo-hyoid and the digastric muscles detached from the hyoid bone; the pharynx is then laid bare and can be dissected out, the larynx meanwhile being drawn to the opposite side. The principal dangers to be apprehended are peri œsophageal phlegmon extending into the mediastinum, and pneumonia from the introduction of foreign bodies into the air-passages.

At the same congress, Professor Billroth stated that six weeks previously he had removed from a woman, aged forty-two years, *the pharynx, the cervical portion of the œsophagus, the larynx, a part of the trachea, and all the thyroid gland*, for a cancer of the pharynx involving the posterior portion of the larynx. He first performed a preventive tracheotomy, and nine days later proceeded to operate, after introducing the canula tampon of Trendelenburg. The incision was made along the anterior border of the sterno-mastoid. In the course of the operation Professor Billroth found that the tumor extended much further than had been supposed, and as he advanced, step by step, he found himself compelled to remove successively all of the larynx except the epiglottis, the upper rings of the trachea, a large portion of the pharynx, the œsophagus as far as the sternum, and the whole of the thyroid body. An elastic tube was placed in the œsophagus for the introduction of aliment. During the first four weeks the patient did well, the wound gradually contracting, and the elastic tube was then removed in the hope that the pharynx would unite with the lower portion of the œsophagus and form a permanent canal for the passage of food. After the removal of the tube, however, deglutition was accompanied by suffocative attacks and vomiting, and the canal contracted, rendering the passage of bougies necessary. In the sixth week a false passage was made in the peri-œsophageal tissue. Pericarditis and death followed.

Kolaczek, of Breslau, removed a cancer of the posterior wall of the pharynx by a supra-hyoidean pharyngotomy, eight weeks before the congress met. The patient was still living at the date of the report, and was nourished through a tube placed in the œsophageal fistula. Koenig, of Göttingen, and Gussenbauer, of Prague, have also removed cancers of the pharynx, and, like Langenbeck, lost their patients from pneumonia due to the introduction of food into the lungs. To avoid this danger, Thiersch has proposed the preliminary establishment of a gastric fistula.—*Le Progrès Médical*, Aug. 30, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 25, 1879.

THE INTERNATIONAL CONGRESS OF MEDICAL SCIENCE.

THE sixth meeting of this congress took place at Amsterdam during the week from September 7th to September 13th.

The proceedings of a body with so pretentious a title are naturally to be judged from a high standpoint; and this year, in addition, they have to meet comparison with the exceptionally good work of the British and the French associations. The addresses delivered and papers presented, however, so far as they have yet been published, seem to have been worthy of the occasion, and to have furnished much new and valuable material to the profession at large.

The work was done in general sessions and in nine sections. Medicine and surgery, however, received the most notable contributions, while at the general meeting the addresses of President Donders and Professor Virchow excited the greatest attention.

The opening session was attended by nearly a thousand persons, mostly physicians, and these listened, it is said, with rapt attention to President Donders, who spoke for two hours upon the present condition of medical science and the importance of experimental physiology to its future growth. His address was delivered in French, the language adopted by the Congress as the common medium of communication.

Among the contributors of papers on the following days Englishmen and Americans were conspicuously absent. The meeting of the British Association a few weeks before had evidently drained the former dry, and America is too far away to be excited to much interest in a congress at Amsterdam. The meeting of the French Association for the Advancement of Science during the previous week had also diminished the number from that country. The majority of papers, therefore, came from Germany, Austria, and Italy. The only prominent Englishman was Mr. Lister, who made what would seem to have been a very impassioned address in defence of his antiseptic method, and whose presence and remarks were received with much enthusiasm. Of Americans, Dr. Sayre made a very successful demonstration of the value of plaster-of-Paris jackets in Pott's disease, and Dr. E. Seguin discussed the metric system, as he had done previously at Cork and Montpellier.

The most interesting papers before the special sections were on medical subjects, and they were quite remarkable for their very practical character. The subject of phthisis was presented by four delegates. Dr. Stokvis related experiments showing that phosphoric acid and phosphates are not increased in the urine during any stage of the disease, but continue in about the same proportion as in health. While not denying the value of the phosphates in treatment, he considered it proved that they do not act by supplying an element drained from the system by the disease. A paper that excited more discussion was read by Mr. Delaunay, who asserted that phthisis was essentially a disease of warm climates; that in the north it was slow in progress and more amenable to treatment, while directly in proportion to its nearness to the equator did it become more rapid and fatal. He urged that, instead of having sanitaria in the south for northern invalids, there should be sanitaria in the north alone and for all.

In connection with the subject of fevers, a very interesting discovery by M. D'Arsonval, a distinguished young French physiologist, was announced. It consisted of an apparatus by which the amount of caloric thrown off in a given time could be accurately and easily measured. Previous methods have been very imperfect, but it will now be possible to measure the amount of heat generated under the various conditions of starvation, fever, putrid infection, and so forth.

In the more practical direction of the treatment of continued fevers, there were several contributions. Statistics in favor of cooling baths were given by Dr. Brondgest, who urged their special value with infants, and at the beginning of pyrexial conditions. Another writer advocated the douche in place of the bath, and from the descriptions it would appear that the idea of the Kibbe bed has been seized upon in the East. The author of the paper is Dr. Marcowitz.

The subject of metallotherapy was brought up in two papers, which are by far the most satisfactory contributions to this question that have been made for some time. Professor Eulenberg, of Greifswald, in a paper entitled "Researches on the Transfer of Sensibility," showed that such transfer is a physiological fact which is simply exaggerated in pathological cases. Thus, it was found that whenever a portion of the skin is made hyperæsthetic upon one side of the body, delicate tests show a diminution in sensibility

at a corresponding point on the opposite side; or, if one side be made anæsthetic, the other will be slightly hyperæsthetic. The demonstration of this fact, if supported by other authorities, will take from the theory of "expectant attention" a burden which it has been apparent was altogether too great for it.

As a complement to this physiological fact, MM. Proust and Ballet related certain experiments with magnets and metals upon persons suffering from organic hemianæsthesia. Even upon these they assert that a certain amount of transference of sensibility could be obtained.

The pathology of Bright's disease was discussed very exhaustively by Dr. Rosenstein. This gentleman announced what he seemed to consider a new classification of the various forms of this disease. Though possibly novel to the International Congress, it is remarkably like that taught in one of the colleges of this city, and need not be enlarged upon here.

Some very strikingly novel theories of this disease, however, were presented by Professor Semmola, of Naples. This learned professor states that the real chronic Bright's disease is a general affection—a defect in nutrition—in which the changes that take place in the kidneys do not constitute the primary cause of the principal symptoms of the disease. The gradual effect of moist cold upon the skin is the only true cause of Bright's disease. It acts by paralyzing the respiratory function of that organ. In consequence of this paralysis there are changes in the blood; the albuminoids are not perfectly assimilated or oxidized; there is an excess of albumen and deficiency of urea both in the blood and urine; these conditions in time producing the histological changes in the kidneys.

A bare statement of the theory by no means does it justice, and the author appears to have demonstrated some important physiological facts, whatever be the value of his generalizations.

In the section of surgery, aside from Lister's defense of his antiseptic method, perhaps the most notable event was the address by Professor Verneuil on the "Indications for Operation in Individuals suffering from Constitutional Diseases." While asserting the occasional necessity for operation in persons affected with constitutional diseases, such as cancer or scrofula, he argued that heretofore the results of such interference have not done much credit to surgery, and that if surgeons knew more of the diatheses with which they tampered they would not operate so often.

Prof. Van Gondoever, in a paper upon lithotomy, spoke very disparagingly of lithotrity, and urged the especial value of the suprapubic operation; this he claimed to be best adapted for children in all cases, and to be often the best method for adults.

There were several contributions to orthopædic surgery—none, however, exciting the interest which Dr. Sayre caused by his demonstrations.

Gynecology received very considerable attention, as did also the departments of otology and ophthalmology.

Professor Virchow made on address upon medical education, in which he discussed especially the kind of preliminary training which the medical student should have had. He sketched out a preliminary course in the classics and the physical and natural sciences, which would be likely to quite paralyze the average American plough-boy ambitious to deal in pills. The address was delivered, contrary to rule, in German, and consequently did not receive the attention that its value deserved.

We have been able to give but a very slight sketch of the important work performed by this Congress. All that was done, however, is upon record, and whatever is of permanent value will reach, in time, the whole profession. It is as diffusers to the many of the knowledge gained by the more favored or competent few that such conventions deserve our utmost praise and encouragement, and none, perhaps, more than the International Congress, for, if properly conducted, there could be no agency so effective in making popular all that is new and good in medical science.

STATE SOCIETY'S TRANSACTIONS.

We are in receipt of a number of pamphlets containing the transactions of certain State societies. We find ourselves very frequently favored with these productions, as there seems to be at present no organization which is content with anything less than an elegant edition of its annual proceedings.

The works before us give evidence of the value of State societies in stimulating, to a certain extent, scientific and practical inquiry, as well as in raising the general standard of the profession. They contain the usual assortment of articles. There are some very long papers, the offsprings of great occasions or discursive minds; there are presidential addresses adorned as ever with chaste rhetoric and poetical quotations; there are a good many papers written carelessly; and we find a few from the men of hobbies and unbalanced enthusiasms. There are, as is usual also, a good many papers that deserve wide perusal and attention.

It is a fact, however, that the proceedings of State societies do not, as a rule, represent in any degree the results of the observation and study of its members.

We may instance the State Society of Minnesota. This is a well-organized and practical body. It has adopted the custom of appointing committees on various subjects, and these committees issue circulars to the physicians of the State, requesting information upon these topics. The replies are collected and presented in a report. Theoretically this is very well; practically the replies are comparatively few, are often hastily written, and, individually, are valueless

Collected, properly used, and extensively circulated, even a small number might be made of some value; but, issued as they are in a volume of transactions, they are essentially dead.

We repeat that State societies do not accomplish the high work that should be expected of them. We believe the reason lies to a considerable extent in the fact that the matter presented at its meetings is too often liable to perish with the session at which it is read.

The medical public does not get it; and few men will do hard work without the stimulus of a possible future appreciation of their efforts. A physician who has some good cases to work up or facts to collate, can hardly feel rewarded for weeks of labor by permission to tell his story before a small audience of professional brethren, or even by seeing it printed in a beggarly edition of society proceedings. We believe it should be the aim of societies to see that their best work is put in medical journals, and to make it understood also that a wide publication through such channels will be the reward of all conscientious work. The policy that has been adopted, or virtually so, by some societies, of trying to increase the value and sale of their transactions by excluding their papers from the journals, is simply suicidal. Transactions never reach the circulation of any reputable journal, and they are an inadequate medium for the diffusion of medical knowledge. We doubt if any one ever picked up a volume of transactions without having to blow the dust off first; if any one has, it is extremely creditable to the housekeeper.

There are, of course, certain records to be kept, and certain kinds of contributions which make these volumes a necessity; but it should be made clear among the working men of societies that the chief end of their labors is not the production of an annual volume, but a general diffusion of their work, through periodicals; while with such a stimulus there will probably be no remarkable epoch in medicine created, there will certainly be more creditable results from the annual meetings of medical men.

We shall not deny a certain lack of perfect disinterestedness in our thus urging societies to put their work, when possible, into journals. But, however this may be, it does not lessen the force or wisdom of the policy we recommend.

International Quarantine.—At a conference for the reform and codification of the law of nations, assembled Aug. 19th in Guildhall, England, Sir Sherston Baker read a paper on "International Rules of Quarantine." In it he propounded a scheme drafted in the form of forty articles, setting forth that an international bill of health might be granted by the local authorities to every vessel leaving its port, to be delivered to the authorities at its port of destination. The matter was referred to a committee for examination.

Reviews and Notices of Books.

The National Dispensatory, containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopœias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By Alfred Stillé, M.D., LL.D., and John M. Maisch, Phar. D. Second edition. Philadelphia: H. C. Lea. 1879.

We are pleased to see that a second edition of this great work has been called for by the profession. As it is but a few months since we reviewed it at length, it is now necessary to add that the volume has been thoroughly revised and somewhat augmented.

Eyeball-Tension—its Effects on the Sight and its Treatment. By W. Spencer Watson, F.R.C.S. Eng., B. M. Lond., Senior Surgeon to the Royal South London Ophthalmic Hospital, Consulting Ophthalmic Surgeon to the South London Medical Aid Institute, etc.; formerly Assistant-Surgeon to King's College Hospital. With woodcuts and illustrative cases. London: H. K. Lewis, 136 Gower Street. 1879. Pp. 70.

In his preface the author says he has "adopted the term *eyeball-tension* in preference to *glaucoma*, as being more expressive of the acknowledged condition of the eye in the disease in question," etc. We think the profession will object to this change in nomenclature as being not very well founded. All eyeballs, whether diseased or not, have eyeball-tension. Some have increased tension, some diminished tension, and some normal tension. If we wish, then, to substitute for glaucoma the name of the most constant symptom of that disease, we must say "increased eyeball tension." This name would not only be inconveniently long, but in those cases of glaucoma which now and then turn up, in which the tension is normal, or even diminished, would be a misnomer.

It is also well known that the tension of the eyeball may be increased in other diseases than glaucoma. All things considered, probably we cannot do better than to adhere to the well-understood and generally accepted name, glaucoma.

We cannot help wishing that the author had tested the vision in his cases by the modern method—that of Snellen—instead of telling us that the patient could read "J.2." or "J.10." without giving us the distance at which he could read it. We are thus left without data from which to estimate the exact amount of vision in each case.

We are also sorry to find no information in regard to the *refraction* of his cases, either in those tabulated or in those detailed in the appendix. But notwithstanding these and a few other defects, the book is a readable and instructive one. Nowhere have we seen a more simple and natural classification of the different forms of glaucoma, or a more lucid explanation of the various theories in regard to its causation than in Chapter I.

In Chapter II. the author gives a succinct history of the rational treatment of glaucoma, describes and comments upon the several operations performed for its relief, and gives us his impressions as to the value of eserine and pilocarpine in the treatment of glaucoma.

On page 14 he says: "Eserine is very valuable in chronic cases." This statement does not agree with the general experience of ophthalmologists.

Contrary to the author's experience (page 18) we have seen several cases in which acute glaucoma at-

tacked the fellow-eye within a day or two after iridectomy for *chronic* glaucoma. We have also seen more than one case in which "iridectomy performed on one eye hastened the access of the disease" in its fellow, the latter having previously shown no premonitory symptom.

We would recommend the book to the profession as the best monograph on the subject in the English language.

ON DISEASES OF THE STOMACH; the various Forms of Dyspepsia: their Diagnosis and Treatment. By S. O. HABERSHON, M.D., London. Third edition. Philadelphia: Lindsay & Blakiston 1879. Pp. 324

A BOOK that has already gone through two editions seldom calls but for a short notice from the reviewer, and this volume of Dr. Habershon's is no exception to the rule. It is written in a pleasing style, and treats of diseases of the stomach in a practical manner. It is divided into twenty chapters, fifteen of which are devoted to a consideration of the different forms of Dyspepsia, while the remaining treat of Degeneration, Ulceration, Cancerous Disease, and Spasm of the Stomach. Our author, in the management of diseases of this viscus, rightly places medicines secondary to proper diet, and protests against the too common custom of constantly dosing dyspeptics with drugs which, in the end, leave the patient in a worse condition than at the beginning of treatment. We can cordially recommend this book of Dr. Habershon's to the profession.

A GUIDE TO SURGICAL DIAGNOSIS. By CHRISTOPHER HEATH, F.R.C.S., Holmes Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital; Honorary Fellow of King's College, London. Philadelphia: Lindsay & Blakiston. 1879. Pp. 214.

MR. HEATH is so well known both as a practical surgeon, teacher, and writer, that anything from his pen requires no introduction from the hands of a reviewer, and scarcely any notice but the announcement of the fact that he has written a book. He says in his preface that "having been a clinical teacher for some years, I have constantly been struck with the difficulty which even a well-read student finds in bringing his knowledge to bear promptly and efficiently upon the patient before him. The recognition of the several symptoms which the student has learned in lectures or by reading can be best directed by the teacher at the bedside; but in his absence it is not always easy for the student to get a clue to the nature of the case before him. An attempt is made in the following pages to afford this assistance. . . . ."

The first chapter is on case-taking, in which he gives a general plan of the proper manner of recording the history of a patient, the course and treatment, which many practitioners who report their cases for medical journals would do well to study with care; they could certainly do so with profit. The arrangement of the subject-matter is not in two columns, but the surgical diseases are considered in paragraphs, with marginal notes of the subject of each section. There are throughout the book tables of differential diagnosis; thus of "concussion and compression of the brain," of "ulcers of the face, injuries about the shoulder," etc. The character of the work can be better illustrated by a quotation taken at random—thus, on page 202, § 453:

"*Osteomyelitis*.—A swollen, tense condition of a stump in which there is no 'pocketing' of matter, accompanied by a great rise of temperature, and a rapid, feeble pulse, is apt to be followed by profuse discharge of effusive pus from the medullary canal and around the bone, which will be bare, the case being one of *osteomyelitis*, or inflammation of the medullary membrane. Symptoms of pyæmia may at any moment arise in such a case."

OPHTHALMIC OUT-PATIENT PRACTICE. By CHARLES HIGGENS, F.R.C.S., Ophthalmic Assistant Surgeon, Guy's Hospital; Lecturer on Ophthalmology, Guy's Hospital Medical School. Second Edition. Philadelphia: Lindsay & Blakiston 1879.

THIS little book of 116 pages seems to be a *résumé* of the author's lectures on Ophthalmology at Guy's Hospital. Being devoted exclusively, as its title indicates, to out-patient practice, only the most common affections of the eye, and such as come most frequently under the observation of the general practitioner, are touched upon.

The author has a happy faculty of stating concisely and clearly the more important points in the diagnosis and treatment of each disease spoken of, and as far as it goes, the work seems to be, for the most part, fully up to the times.

Some of the statements are, however, open to criticism. For instance, on page 31, it is stated that "the presence of nodules of lymph upon the iris shows that the iritis is syphilitic." Most ophthalmologists must have seen exceptions to this rule, and it is now very generally understood that there is no one unfailing diagnostic symptom of syphilitic iritis.

In purulent ophthalmia the author recommends (page 19) that a "bag of ice be laid upon the closed lids during the intervals at which the lotion is applied." We have found the weight of a bag of ice a serious objection, and that iced cloths, consisting of two thicknesses of old muslin or linen, frequently changed, are much more agreeable to the patient. The author fails to mention that, in these cases, operative interference, as canthotomy or paracentesis, is frequently necessary to save the eye.

The method of slitting up the canaliculus described upon page 47, is a somewhat antiquated one, and is now resorted to only in exceptional cases. The operation is almost universally performed with a probe-pointed knife, and without the use of a grooved director. Neither is it now the usual practice to wait five or six weeks after slitting up the canaliculus before trying "to relieve the structure (stricture?) of the duct by passing probes."

On page 101 it is stated that the retinal "veins are distinguished from the arteries . . . . . by the fact that the arteries are marked by a double contour, their margins being considerably darker than their centres." A little careful observation will convince any ophthalmoscopist that there is a light streak along the centres of the retinal veins as well as arteries.

The book is, in the main, a good one, however, and may be read with pleasure and with profit by the general practitioner, for whom it is evidently intended.

A NEW FUNCTION FOR THE SYMPATHETIC SYSTEM.—Dr. R. M. Bucke, Superintendent of the Asylum for the Insane at London, Ont., in an elaborate essay upon the moral nature of man, asserts that its seat is not in the cerebrum, but the sympathetic system. Some such idea was formerly advocated by Bichat, who contended that the passions were located in the organs of organic life. The close relation between emotional changes and functional derangements of the various viscera led to this idea.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 24, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

SUBPERIOSTEAL EXCISION OF ELBOW.

DR. LANGE exhibited a patient upon whom he had performed subperiosteal excision of the right elbow-joint, after Prof. Voight's method, and gave the following history: Patient was nineteen years of age, and had a stiff right elbow from his early childhood. He knew nothing about the cause of this trouble. The arm remained thin and powerless, and any exercising caused pain in the joint, especially during the last two years. Various methods of treatment were employed but without avail, and the patient finally resolved to get rid of his trouble by an operation.

At that time the patient was in good health. The right elbow was anchylosed at an angle of 90°, with a mobility of nearly 10°. The tissues about the joint were somewhat thickened, but no fistula or other indication of existing suppuration was present. The olecranon and head of the radius seemed thickened, and they were very painful on pressure, showing chronic ostitis. The operation was performed on the 25th of June by means of a bilateral incision, antiseptically made without spray, and by the bloodless method. The periosteum was carefully preserved; in all those places where important tendons or ligaments had their insertion (olecranon, coronoid process, epicondyles of humerus, etc.), thin layers of bone were separated by means of hammer and chisel, and remained in connection with the periosteum, according to the plan of Voight.

The operation was somewhat tedious and difficult, the periosteum being thickened and tense, and all recesses of the joint obliterated. Lister's gauze dressing was applied. The after-treatment consisted of a dorsal splint of plaster-of-Paris, with elevated position and slight extension. The position of the arm was about 150°. After the tenth day position was changed every second day to the extent of from 75° to 150°. At the end of third week, articulated silicate dressings (with shoulder-piece), which had a movable joint and rubber strips, were applied corresponding to the new joint. The joint allowed a slipping of the bones of the forearm upward and backward, according to the physiological position of the ulna. Active and passive movement were freely practised by causing the patient to lift a box filled with sand, the amount of which was increased every day. These exercises effected a stretching of the elbow. The arm, by means of the strip, was held in a right angle. The weight of the sand was chosen always a little beyond the strength of the patient to master it, so that it slowly extended the arm, the patient endeavoring to prevent this, and struggling against the weight by the power of his muscles. The rubber strips kept up a passive dragging of the ligaments and held the bones in a certain adaptation.

After the seventh week the apparatus could be omitted, the new formation of the bones being very significant, and almost complete cicatrization had been complete at end of fifth week. There had not been any significant discharge since the second week, only those places discharging superficially where the drainage-tube had been introduced.

The reaction after the excision had been quite insignificant. A bloody infiltration of the arm and forearm disappeared under the physiological changes of color, and was reabsorbed without interfering with the healing process.

When the patient was exhibited to the Society, just three months after the operation, the elbow presented nearly its normal shape. Motion was between 80 and almost 180 degrees, without any abnormal lateral movability. The condyles of humerus appeared stronger than normal. Pro- and supination almost normal (had been exercised also methodically every day, the apparatus being removed for this purpose). The head of the radius was well marked, and normally faced the external condyle. The olecranon was distinctly formed, but was a little smaller than normal. Above its apex someting like a sesamoid bone could be felt in the triceps tendon. The arm was so strong that the patient was able to lift a chair, seizing it by the leg, and after stretching the arm he held the chair a good while in the air. The flexion to an acute angle was difficult. The specimen showed deep depressions in the articular part of the ulna, especially one behind the base of the coronoid process. Its walls were hard and smooth; they were covered by a dense fibrous tissue which surrounded a small quantity of cheesy matter. All the depressions in the bone were filled with a succulent fibrous tissue, which sent vascularized adhesions to the opposite cartilage; so the process was on its way to cicatrization. The bones of the humerus were almost normal; cartilage of radius showed some cicatricial depressions; its head had an abnormal process toward the articulation, with the ulna, which was entirely obliterated by a dense fibrous mass.

ERECT LUXATION OF THE HUMERUS.

A vigorous laborer, about forty-five years of age, when rolling a heavy piece of ice along an inclined plane, lost his balance, and, in tumbling forward, seized, by the elevated right hand, the projecting border of a barrel of beer, a series of them forming a comparatively narrow path. He fell down in spite of that, and felt "that something was turned out in his shoulder when he was in the air." He could not get up alone, and the arm remained in the erect position. Dr. L. saw him eight hours after injury, in consultation with Dr. Assenheimer. The patient was in bed, with the arm elevated to about 120 degrees, stretched in the elbow, hand in supination. He held with his hand a string, which had been attached to the upper border of his bedstead. Every sinking down of the arm caused a severe pain about the upper end of the middle third of the humerus, perhaps in consequence of dragging of the coraco-brachialis muscle; deltoid relaxed. There was a deep depression below the acromion. The head of the humerus could clearly be seen below the coracoid process and exceeding its line toward the middle line so that about the tubercle corresponded to the end of the coracoid process. The axis of the humerus corresponded to a line which might have crossed the articulation of sternum and third rib. If the patient made a strong lateral curvature of the trunk, so that the short ribs almost touched the crest of the ileum, and if at the same time he lowered his scapula as much as possible, he, when sitting, was able to rest the wrist upon the knee. The arm was prevented from falling by the coracoid process, and perhaps the pectoralis minor. The reduction was made without chloroform, patient sitting on a chair. The scapula was fixed by means of a towel. The elevation was increased, and after extending as much as possible, the arm was lowered, when the head of hu-

merus slipped forward under the coracoid process, and was placed against the border of the glenoid cavity. A further slight rotation inward made it slip to its normal position without difficulty. Recovery took place in a comparatively short time, so that after three weeks he was able to resume his work.

LARGE MAMMARY TUMOR.

Dr. A. C. Post exhibited the segment of an enormous tumor of the mammary gland, which he had removed by operation from a lady over sixty years of age. The whole tumor, after its removal, weighed nineteen pounds. It had existed for about fifteen years, was small when first observed, and grew very slowly. During the past three years it had grown rapidly, and finally reached such a size as to occasion extreme inconvenience and to prey upon her health. Dr. Post saw her early last spring and advised the removal of the growth, at the same time telling the patient that the operation was a hazardous one. She did not make up her mind to follow the advice until last July, when a hemorrhage occurred from an ulceration on the surface of the growth.

The operation was performed with the assistance of Dr. Sands, of this city, and Drs. Barker and Owen, of Morristown, N. J. The subcutaneous vessels were enormously enlarged, and it required very careful dissection to separate the integument from the tumor. The patient became very much exhausted while on the table, requiring repeated hypodermic injections of brandy. After the operation she had a very feeble pulse, and died in the course of an hour. The tumor was fibro-cystic in character.

YELLOW FEVER—FATTY LIVER—PARENCHYMATOUS CHANGE IN THE KIDNEYS—URÆMIC COMA.

Dr. Satterthwaite presented the liver, spleen, and kidneys, and microscopic sections from a patient who died in the Presbyterian Hospital, of yellow fever, on July 29th.

The following was the outline of the clinical history prepared by Dr. Wetmore, of the hospital staff, and Dr. W. H. Porter had prepared the microscopic sections:

Margaret Cregan, æt. 32, Ireland; widow; stewardess; was admitted July 25, 1879. Family history excellent. Personal health had always been good. Her illness dated back only five days, *i. e.*, it commenced July 20, 1879. She then had frontal headache and general "soreness all over her back and legs." At 10 A.M., on the 20th, she had a severe chill, followed by some fever. There was nausea, but no vomiting; there was also some diarrhœa. She had chills night and day, with fever and sweating, for the five days preceding admission. When admitted her temperature was 105° F., pulse 108. The diagnosis of remittent fever was made, and she was given cinchonidia sulph., gr. xx., in divided doses. The symptoms at that time were manifestly insufficient to establish the subsequent diagnosis.

On the following day the pulse had fallen to 98; temperature 104° F.; and in the evening to 92; temperature 104¼° F. The patient slept most of the day. She had some diarrhœa, but no pain. Her diet was milk chiefly. The urine examination gave the following results: sp. gr. 1020; color, amber; reaction, alkaline; odor, ammoniacal; sediment, yellowish-white; albumen, half volume. The amount of urine could not be ascertained, because it was passed with the evacuations from the bowels. Microscopic examination revealed triple phosphate and urate of ammonia crystals, with some granular casts and blood-corpuscles.

On the seventh day (July 27th) the pulse had again fallen in the morning from the figures of the preceding morning; it was 94; temperature 102¼°. In the evening the pulse was 90, and temperature lower again (101°).

On July 28th, the eighth day, she vomited occasionally, though the cinchonidia was kept down half an hour. Pulse 88, and temperature the same as the preceding night, *i. e.*, 101°; evening, pulse 80, temperature 101°. The vomited matter was white (probably the milk she drank). The diarrhœa continued. The color of the passages was light yellow. Menstruation occurred this afternoon.

July 29th (ninth day).—The night was passed with comparative comfort. Twice she vomited some dark matter. Jaundice was now noticed for the first time. The pulse was now weak and she was delirious, recognizing no one. The second sound of the heart was almost imperceptible. Respiration labored, and 30 per minute. At noon it was found that she had passed no water since 6 A. M. Hot cloths were then applied to the bowels, and she was cupped over the kidneys: no œdema anywhere. Shortly afterward a catheter was introduced, and brought away a drachm of dark urine. It contained 50 per cent. per volume of albumen. The microscope also detected blood and the epithelium that is described as renal. Pulse was 88, and temperature 99½°.

As it was plain she was suffering from suppression of urine, cups were again applied over the kidneys, and one-quarter of a grain pilocarpiæ hydrochlor. was injected hypodermically. She died at 1.50 P.M. Autopsical examination twenty-one hours after death, by Dr. W. H. Porter, curator to the hospital, in the presence of Drs. E. C. Janeway, W. De F. Day, and E. B. Ramsdell:

External examination.—Rigor mortis well marked; body well provided with fat, and in a good state of preservation; general jaundice of the skin; numerous ante-mortem ecchymoses on the lower extremities, together with the usual post-mortem discolorations on the under surface of the body and limbs.

Dr. Putnam-Jacobi asked if there were any evidences of the reabsorption of bile. This seemed a possible condition, in view of the fact that the liver-cells were atrophied.

Dr. Satterthwaite remarked that the liver-cells were filled with oil-globules and granular fat, and were rather swollen than otherwise.

Dr. Putnam-Jacobi thought that a distinction should be made between fatty degeneration in which mere globules were deposited and that condition in which only granules were present.

Dr. Satterthwaite did not think that there was, practically speaking, any difference between these conditions.

Dr. Putnam-Jacobi was of the opinion that a distinction should be made between fatty infiltration and fatty degeneration of liver-cells. In the former cases the cells became broken down, and in the latter their functions were not markedly impaired.

Dr. Satterthwaite thought that the particular size of the oil-globules was not of so much account as their relative position in the substance of the hepatic lobule. If the deposit had extended to the centre of the acinus around the hepatic vein, the function of the liver was interfered with, if not entirely abolished. On the other hand, when the so-called simple fatty degeneration took place, there was usually a deposit of oil merely in the cells at the periphery of the lobule.

FOREIGN BODY IN THE EYE.

Dr. Knapp exhibited an eye removed by operation

from a man sixty years of age. The organ had contained a foreign body for two years. The patient, at the time of the accident, was passing by a man who was pecking a mill-stone, when he felt that some sharp body entered his eye. Dr. Knapp saw him at the end of eight months afterwards, and discovered a shrunken and movable cataract in the injured eye. As no foreign body was discovered, Dr. Knapp thought that it was enveloped in the cataract. Last June the patient presented himself again, with well-marked irritation in the eye. Extirpation was advised accordingly. On examining the eye afterward, the membranes, except the crystalline lens, were completely normal. At the bottom of the ciliary processes a small piece of iron was discovered, but there was no new formation of connective tissue. In the absence of the latter, Dr. Knapp did not think it impossible that the foreign body had been originally encapsuled in the cataract, and that by a shrinking of the cataract it had fallen to the position where found.

AN INTERESTING CASE OF EXOPHTHALMUS.

Dr. Seguin presented a photograph of a patient with a remarkable exophthalmus. The patient came to the Manhattan Eye and Ear Department on account of projecting eyeballs. Dr. Webster found, in connection with that condition, a pulse ranging from 92 to 96, and the anterior portion of the neck normal. There were no other symptoms in the case. The point of interest centred in the fact that the exophthalmus was the only symptom of Graves's disease which was present. Again, the cause of the disease could not be explained by the mere contraction of Müller's muscle. The unusual point in this case was disease of the optic nerve. There were no evidences of a pulsating tumor.

Dr. Knapp referred, in this connection, to sixty cases of exophthalmus which were on record. Only in a very few of these was aneurism found. In quite a large number the carotid was tied, and some of these cases were cured. He had never met with a case of Graves's disease combined with disease of the optic nerve.

Dr. Seguin asked if there was any bruit in these cases.

Dr. Knapp answered that such a bruit was subjective in the majority of cases.

OBLITERATION OF THE PANCREATIC DUCT.

Dr. Beverley Robinson presented a specimen of obliteration of the pancreatic duct due to carcinoma, and accompanied with great emaciation. The history of the case was given in detail:

George Davis, æt. 27 years; English; groom; unmarried. Admitted to hospital June 28, 1879. About one and a half months ago he lost appetite, and about a month ago began to vomit everything he ate soon after taking food. Never saw any blood in vomits. This condition continued up to the present time. Had pain in the stomach after eating. Abdomen has been distended for about two weeks; legs and feet became swollen about the same time. Passes very little water; bowels regular. Has grown weak and thin. Urine normal. Fluid in peritoneal cavity. Liver cannot be made out. Apex-beat of heart in third intercostal space, above the nipple, and synchronous retraction in fourth interspace.

July 30th.—Paracentesis performed, and 344 ounces of pale yellow fluid, somewhat cloudy, was drawn off.

July 31st.—Urine normal. Liver not felt. A nodulated growth was felt in the median line, below the border of the ribs and extending to the right.

August 8th.—Scanty urine for several days. To-day passed ℥ ix.

September 18th.—Patient has vomited almost daily since admission. No blood has been seen in the vomit. Died of asthenia.

September 19th.—Post-mortem examination. Rigor mortis well marked. Cadaver much emaciated. Abdominal cavity filled with clear straw-colored fluid, distending the abdominal walls, and pressing up the diaphragm. Lungs and heart very small. Kidneys normal. Intestines atrophied and walls thickened; surface of rectum covered in spots with fibrinous nodules. Mesentery also covered with fibrin. A small piece of omentum only remained floating about loose in the abdominal cavity. Stomach, intestines, pancreas, and liver were firmly adherent. At pyloric end of stomach, on posterior surface, was a tumor involving the pyloric orifice, which was about the size of a goose-quill. The pancreas was almost completely obliterated by the tumor. Liver small. Gall-bladder small, and cystic-duct obliterated; hepatic duct and common bile-duct free.

The question having arisen as to the significance of fat in the stools in diseases of the pancreas, Dr. Putnam-Jacobi remarked that while fatty stools were not always present in such cases, they did sometimes exist when there was simple ulceration of the duodenum.

Dr. Satterthwaite stated that primary cancer of the pancreas was almost unknown. It was almost without exception a secondary disease to cancer of the stomach.

Dr. John C. Peters, in this connection, referred to a case of cancer of the head of the pancreas which came under his observation some months since, in which pressure upon the pylorus caused enormous distention of the stomach. The history and specimen had been presented to the Society.

RAPID LITHOTRITY.

Dr. Keyes exhibited calculi removed by rapid lithotrity from a physician aged seventy-three. He had suffered from the symptoms of stone for a number of years. The calculi, which weighed altogether ten and a half drachms, were removed in an hour and twenty-five minutes. This long time was due to the difficulty in grasping the largest stone, which was an inch and a half in diameter, and situated in a sacculated portion of the bladder posteriorly.

Dr. Keyes also took occasion to exhibit Sir Henry Thompson's new instrument, which had been used on that occasion.

Dr. Keyes also exhibited small renal calculi which had evidently passed through the ureter into the bladder without producing pain.

Dr. Peters referred to a similar case in his practice.

Correspondence.

CAUSES OF SUDDEN DEATH DURING THORACENTESIS.

To the Editor of The Medical Record.

Dear Sir:—Dr. Putnam-Jacobi, in the response written to our criticism of her letter on "Causes of sudden Death during Thoracentesis," agrees with us in believing that the cause in question is "exaggerated cardiac diastole," as she calls it. We evidently did not quite understand Dr. Putnam-Jacobi's position in regard to the question from her first communication. We must still beg leave to differ, however, in respect to the causes of this "exaggerated diastole."

In speaking of our theory that the cause of the "exaggerated diastole is the influx of venous blood,"

Dr. Putnam-Jacobi says, "it is evident that this" (*i.e.*, influx of venous blood) "*is consequent upon the exaggerated diastole of the heart*," *i.e.*, what we consider to be a *cause* is "evidently" to the doctor an *effect*. To us this is not evident.

The *direct* effect of the aspiratory force in causing cardiac dilatation (*i.e.*, leaving out of consideration the dilatation which we believe to be produced by the forcing in of blood from the veins) is due simply and solely to the dilatation of those contents of the heart which are capable of expanding when atmospheric pressure is lessened. The only substances which can do this are the gases. The dilatation of the heart, therefore, which results *directly* from the aspiratory force exerted on it can be produced *only* by the expansion of the gaseous contents of the heart. These gaseous contents consist of the oxygen, carbonic acid, and whatever other gases are contained in solution in the blood or tissues. If the heart was composed of perfect solids and perfect liquids *only*, the aspiratory force might exert itself for a century and not enlarge it one hair's-breadth. It must be firmly held in mind that there is really *no force whatever outside of the heart tugging at it and forcing it to dilate*. The dilating force, if the heart had no communication with the veins, would be *simply and solely* the expansive power of its contained gases, which, having been absorbed under an atmospheric pressure of about fifteen pounds to a square inch, are partially relieved from that pressure by the creation of a partial vacuum in the rigid-walled space in which the soft bag, the heart, which contains them, is suspended. It is this expansion which Dr. Putnam-Jacobi apparently believes to be the sole and sufficient cause of the fatal dilatation of the right ventricle. It is an expansion so caused, moreover, which induces the venous blood to rush to the ventricle from the veins. The atmospheric pressure in the right heart is *below* normal. The atmospheric pressure on the veins is normal. Yet Dr. Putnam-Jacobi believes that the influx of blood from the veins to the right heart "*is consequent upon the exaggerated diastole of the heart*."

It seems to us that Dr. Putnam-Jacobi has fallen a victim to the false conception involved in the term "negative pressure" to which we called attention in the RECORD of September 27th, *i.e.*, Dr. Putnam-Jacobi has supposed that the fatal dilatation of the heart was the cause of the venous influx, whereas it seems perfectly evident, on thorough analysis of all the forces at work in the problem, that the venous influx is the cause of the fatal dilatation of the heart.

After the above analysis it is perfectly obvious that as soon as atmospheric equilibrium is restored, these expanded gases will at once be reabsorbed, and the right heart abnormally distended by this abnormally large bolus of blood (which has been forced into it *simply and solely* by the atmospheric pressure *from without* pressing on the veins and squeezing the blood into the heart till equilibrium is restored), fails to respond to the increased strain. The expansion of the right heart caused by expansion of gases before the blood is forced in, seems to us an unimportant factor in the problem (see below).

In this resulting paralysis there exists inability of the muscular fibre of the heart to contract under the increased strain, either from insufficiency of the intrinsic contractile power of the fibre, insufficiency of the stimulus to contraction (nerve-force), or both. Dr. Putnam-Jacobi claims that it is insufficiency of nerve-force, which results from *assumed* preceding *lessened* activity of the heart, which causes the failure of the cardiac contraction under the strain. It seems to us that it can be conclusively demonstrated (see below) that if this insufficiency exists, it must be the result of *over-*, not of *under-*work, to which cause of weakness we should add *malnutrition*. Dr. Putnam-Jacobi has not alluded to the possible effect of the excessive dilatation directly on the *muscular fibre itself*. How to demonstrate which, if either factor predominates, we don't know. It seems to us, however, that overdistention of muscle may have quite as much to do with the question as insufficiency of nerve-force. This, however, is pure conjecture.

With reference to the movements of the chest-wall after aspiration, we must again emphasize the fact that after paracentesis, *under the circumstances which we are now considering*, the "long-immobilized chest-wall *don't and can't expand at all*."

The reasons why it is immobile during pleurisy is, first, that the half-thorax is so distended by the effusion that it is an anatomical impossibility for it to expand any more; or, second, because pleuritic adhesions or thickening of the pleura exist, which resist the efforts of the muscles of inspiration. The immobility resulting from effort to suppress pain is, of course, out of the question in such cases as we are referring to. If we draw off this fluid and make a partial vacuum in the affected side of the thorax, the affected side, to expand, must obviously exert an expansive force strong enough to overcome the resisting atmospheric pressure. This, in all probability, it cannot do.

Dr. Putnam-Jacobi believes that the cause of sudden death under the circumstances in question is "exaggerated diastole of the heart," caused by this so-called "negative pressure." The writer has tried the following experiment: He has closed his glottis at the end of deep expiration, and then *inspired* with all his strength. Although he is an adult male of fair muscular development and in good health, he was not able to inflate his chest to any very appreciable extent. Moreover, the "negative pressure" applied to the heart was not great enough to paralyze the right side of his heart, or even to cause faintness. What reason have we then to suppose that the feeble inspiratory muscles of an exhausted patient could expand the chest-wall against a pressure so great as to cause not only faintness but instant death? There can be *no* "outward movement of the thorax" to direct "aspiratory force" with "abnormal intensity upon the heart." The thorax is being clamped and crushed in while the blood is being crammed into the right heart. This throws the question of the influence of thoracic expansion entirely out of the problem. The pressure of the atmosphere on the outside of the thorax, which tends to press everything on which it impinges—solid, liquid, or gas—into the artificially produced vacuum, is the only force to be considered. Compared to this, the force of inspiration is inconsiderable. If this was not so, suicide might be conveniently committed by simply closing the glottis and making a forced inspiration; spasmodic croup would be invariably fatal, etc.

Dr. Putnam-Jacobi is right, in some cases at least, when she says that the "cardiac ganglia must have been obliged to expend less force than usual to antagonize them" (*i. e.*, the respiratory movements during chronic pleurisy. We laid too much stress on compensatory expansion of the unaffected side. We, moreover, agree perfectly with the assumption that "simple collapse of the lung, more or less deprived of air, does not offer a formidable obstruction (*i. e.*, to the circulation through the lung) *any more than do unexpanded fœtal lungs* (italics ours). Unfortunately for Dr. Putnam-Jacobi's theory, a stronger demon-

stration of the falsity of that theory than this same analogy could not have been chosen.

One peculiarity of the fœtal circulation is that the most of the blood which enters the right ventricle is forced into the aorta through the ductus arteriosus. Its labors, moreover, are reduced by the passage of blood through the intra-auricular foramen, from the right into the left auricle. At the moment of birth, when the lungs expand, the mass of blood from the right heart ceases to pass through the ductus arteriosus and foramen ovalis, and enters the lungs. This physiological process proves beyond a doubt that collapse of the lungs *does* cause obstruction to pulmonary circulation, and therefore *does* increase the labor of the right side of the heart in pleurisy with effusion—unless, indeed, the individual affected happens to be a fœtus, or unless Nature, with unusual foresight, has not only left him a ductus arteriosus and a fenestra ovalis intact, but has also caused them to grow with the growth of his blood-vessels!

This obstruction must, it seems to us, infinitely outweigh the trifling ease which the heart may have from possible diminution of aspiratory force. We must then adhere to our original belief, that sudden death occurring during thoracentesis depends on overdistention of the right heart caused by atmospheric pressure, which forces the blood from the peripheral veins into the thoracic veins and right heart, to fill the partial vacuum produced by the operation.

Very truly yours,

R. Van Santvoord, M.D.

66 West Eleventh St., Oct., 1879.

"PITHING" AND THE VASCULAR SYSTEM.

To the Editor of The Medical Record.

Sir:—In your issue of September 13th I endeavored to show that the doctrine taught in our text-books, as to the relations of the central nervous system to arterial contraction, is incorrect; that, after destruction of these centres, instead of being dilated, the arterial system is contracted and empty, as a result of which contraction the blood is transferred to the veins, which are proportionately distended. Dr. R. Van Santvoord comes to the rescue of the popular doctrine, in your issue of Oct. 4th; and in doing so, claims, among other things, that such alleged contraction of the chief arteries of the systemic system is impossible, on the ground that "contractile fibres are to be found in considerable numbers only in the smaller arteries," and "not in the large vessels at all."

It is well known that the smaller arteries are much more amply supplied with muscular contractile fibres than the aorta; and, as a consequence, that it is upon these that the influence of vaso-motor innervation is more actively displayed. We do not pretend that in general—and least of all, in the larger and older animals—the aorta would undergo a reduction in calibre sufficient of itself to empty the systemic arteries of blood; but if, in our former article, which was necessarily much condensed, we have not laid sufficient stress on the influence of the smaller arteries in emptying this system into the veins, we believe our general position is quite tenable, and that your correspondent goes too far in denying the presence of contractile fibres in the larger arteries. A reference to the authorities shows that even the aorta is fairly supplied with muscular fibres, and that "contraction of the arterial system," including its chief vessels, is a phrase frequently employed by physiological writers.

In Gray's Anatomy it is stated that as many as forty layers of non-striated muscular fibres have been counted in the wall of the aorta, interspersed with layers of fine elastic tissue. Todd and Bowman describe the same, and even furnish an illustration of the muscular fibres in the aorta of a horse, with their nuclei. Dr. George Harley, in his "Histological Demonstrations," points to the smooth muscular fibres in the wall of large arteries. Dr. Burdon-Sanderson, in the "Handbook," gives directions how the muscular fibres of "the large arteries" may be demonstrated; and in the same work he states that the increase or diminution of arterial pressure is in great part, if not entirely, dependent on contraction of the arterial system (p. 251). This phrase—"the arterial system"—cannot here be held to exclude the aorta and its chief branches. Drs. Todd and Bowman write: "The existence of two forces in the arterial wall, one of simple elastic reaction, the other of a slow muscular contraction, is shown in the well-known experiments of John Hunter," performed on the aorta of a horse (Path. Anat., p. 655). Dr. W. B. Carpenter states that "Valentine and others have succeeded in producing evident contractions of the aorta by irritation of the sympathetic nerve and of the roots of the cervical nerves of the spinal system." (Human Phys., p. 483.) Prof. Kuss, writing of "the arterial system," says the arteries "are not, as we should be likely to suppose, hollow cylinders, but rather hollow ribbons with flattened sides." When full of blood, their form is that of a cylindrical tube; but "in cases of severe hemorrhage they assume their natural ribbon-like form; they assume it also after death, by *ejecting their contents into the capillaries and veins.*" When, in death, the arteries are opened and air admitted, he states, they lose their ribbon-like form and become cylindrical, "which form is due to the antagonism between the muscular and elastic tissue." This reference to elastic tissue, and his remarks generally, show that it is to the aorta and large vessels he here refers; since, as Prof. Kuss states, with few exceptions only, it is at the summit of the arterial cone (aorta) this tissue is found in the vascular system. (Lectures, pp. 152–3.)

Dr. Burdon-Sanderson, in treating of the circulation in asphyxia, alludes to the deprivation of oxygen in the circulating blood in determining "general contraction of the smaller arteries;" and adds, "the immediate consequence of this contraction is to fill the venous system." (Handbook, p. 333). Dr. Van Santvoord disputes the assertion that venous distention can result in this way; and gives it as his opinion that, "if the small arteries had contracted [as we asserted they did], the blood would have been dammed back in the great vessels and heart." Here he is at variance with Prof. Kuss and Dr. Burdon-Sanderson; and, as we merely adopted their view of how the mass of the blood was transferred to the veins, he must settle his objection with them and not with us.

We think we have shown conclusively that the aorta and its chief branches are supplied with muscular contractile fibres; that they are capable of contraction, and if so, of assisting in the process of expelling the blood from the systemic vessels. But even if the "ejecting of their contents into the capillaries and veins" depended on the action of the smaller arteries alone, our arguments would suffer nothing. The point we have sought to make is the general one, that the accepted view of the relation of the vaso-motor centres and nerves to the vascular system is untenable. It is authoritatively taught that

vascular contraction (of the smaller arteries if you like) is the result of vaso-motor excitation. But here in a pithed animal, when the vaso-motor centres are not excited but destroyed—in ordinary death too, when nerve-force is extinct—the arterial system is contracted to the full extent of which it is capable. That is to say, arterial contraction takes place quite independently of nerve-force, or rather in its entire absence. Again, it is authoritatively taught that arterial dilatation is the result of vaso-motor paralysis,—that the muscular fibres of the arteries being no longer urged to contract by nerve influence, yield to the pressure of blood, and dilate. Why, then, are they not dilated in the death of the body, instead of being, as the authorities agree, contracted so as to eject their contents into the veins? And why has it been claimed that death by pithing furnishes an exceptional state of the arteries compared with death from other causes; that here the arteries are dilated, when as a matter of fact the contrary condition prevails? We can only account for these and other anomalies by the exigency of the present vaso-motor theory, and by an oversight in not testing it with the facts, with which we claim it is perpetually out of joint.

We referred in our former article to the effects of a glass or two of brandy in causing flushing, when, as a stimulant to the vaso-motor nerves, it ought (on the theory) to have produced vascular contraction and paleness. We cannot see that Dr. S. has met our point, and we think he misapprehended our meaning from not perceiving the full scope of our theory. We claim that nerves and muscles are antagonists: that while the vaso-motor nerves *dilate* the arteries, the contractile power of the muscular tissue of their walls is constantly exercised to reduce their calibre. A glass of brandy in a dose of nitrite of amyl, gives a stimulus to dilating nerve-power and arterial expansion with flushing results. A dose of aconite, veratrum viride, ergot, etc., paralyzes vaso-motor (dilating) nerve-force, and the contractile power inherent in the muscular fibres of the arterial tubes, no longer restrained, asserts itself, contracting these vessels, moderating congestion, or arresting hemorrhage, etc. On the accepted vaso-motor theory we are required to believe, as Dr. Meryon asserts (Rational Therap., p. 52), that aconite *stimulates* the vaso-motor nerves, "and by so doing diminishes the calibre of the arterioles." Is this a reasonable view of the action of so profound a paralyzer as aconite?

Take one example more. Dr. Burdon-Sanderson writes: "One of the effects of diminishing the proportion of oxygen in the circulating blood is to *excite* the vaso-motor centre, and thus determine contraction of the small arteries" (Handbook, p. 333). Now, is the condition of asphyxia thus produced really a process of stimulation to any part of the nervous system? Is such a condition favorable for the development of nerve-force, in excess of its normal production, to be thus expended in inducing contraction of arteries, which contract quite effectually (as we have seen) in the entire absence of nerve-power (*e. g.*) in death of the body. We have the boldness to claim that this asphyxiating process is a paralyzing one; that the vaso-motor centre is not excited, but depressed; and that what really occurs is paralysis of the (dilating) vaso-motor nerves and unrestrained exercise of the contractile power of the arterial muscle, producing the vascular contraction referred to. In this state of asphyxia, in poisoning by aconite, in the collapse of cholera, and in death itself, we have uniformly contraction of the arteries under the control of the vaso-motor nerves. On one theory we are expected to find excitation of these nerves; on the other, paralysis in these several states. Which condition is it most natural and reasonable to expect to find?

Yours cordially,

THOMAS W. POOLE, M.D.

LINDSAY, ONT. CANADA, DECEMBER 8, 1879.

THE "SUCCESSFUL PRACTITIONER" OF PINE RIDGE REVIEWED.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The Code of Medical Ethics is an acknowledged guide to physicians in their intercourse with each other, and with their patients and patrons. Experience has proven that where its teachings are honestly observed the result is alike beneficial to themselves and to their patients, but it is an observance of the *spirit* of the Code, as well as the letter, that produces these salutary results. I have seen, during a somewhat extensive and varied practice of medicine of many years, physicians who were confessedly great sticklers for the Code, but almost invariably, by word or deed, violated the *spirit* of that paper in every particular. To an honest, well-educated physician the Code is of no very great importance. He does *right* in all his dealings with his patients and patrons, and in all his relations with other physicians, and the Code teaches neither more nor less than this.

I am led to these reflections by reading an article that appeared in the MEDICAL RECORD of August the 30th, and continued in the number for September 13th, entitled "The Experiences of a Successful Practitioner."

This successful practitioner would have the readers of his article believe that he is a strict observer of the Code; and to this, and to his extreme kindness to his neighboring physicians, but more especially to the younger members of the profession, he attributes his success, and as an illustration of his honesty and fair dealing cites the case of Dr. White.

Now let us consider for a moment, how this "successful practitioner" observed the *spirit* of the Code in this very case he gives as a sample of his honesty. He says that one Sunday afternoon he was driving past Smith's, and was asked by Mrs. Smith to look at her son Harry. Although in a great hurry, having thirty (!) patients to visit before supper, he stepped in. He at once told the mother that her child was *very sick!* that it had evidently been left too long without proper treatment! Was this very first act in the drama *honest?* Was he warranted in giving the anxious mother this opinion, whether the patient was under the care of another physician or not, without a more careful examination of the case? He knew, or ought to have known upon what pathological conditions he based his opinion before giving it. In cases of "simple intestinal irritation," as this one turned out to be, there is usually no danger, and thus no necessity for grave looks or knowing glances; neither was there any cause for exciting the parents to fearful apprehensions as to the safety of their child. But having learned that Dr. White was treating the patient, he partially subsided, and advised them to send *at once* for Dr. White! Still, notwithstanding his great hurry and his *thirty* patients to visit before supper, he *took time* to inform them that he was a friend (!) of Dr. White, that the doctor was a good fellow—a very young man with little experience, but was willing to learn!—brought up a carpenter, and had studied medicine *two* years—when everybody knows that no medical college in this country con-

fers the degree of doctor of medicine until the applicant has studied medicine with some regular physician *three* full years. What more could this successful practitioner—this friend of Dr. White, have done to weaken the confidence of these people in the attending physician—and what more could the most consummate quack have done to secure the case? Admitting, for the sake of argument, that the "child was *very sick*," as he says—then this was a case of emergency, and in such cases, when a physician is called in to see a patient under the care of another physician, the Code allows him to prescribe such medicines as the emergency of the case requires—why, then, did not this friend of Dr. White, this strict observer of the Code! then and there give the child a dose of subnitrate of bismuth and oxalate of cerium, or his "chalk mixture well sweetened," to allay the vomiting, and then pass on and inform Dr. White, if convenient, of what he had done, without making so much ado about nothing? But it seems that this successful practitioner knew well what he was about. He had another object in view. He had aroused the fears of the parents for the safety of their child, and he had fully informed them of the opportunities and qualifications of Dr. White, and well he knew that these anxious parents would not allow this "very young doctor" to practise upon their Harry, and that they would not only call this "friend of Dr. White" in counsel, but that after a great display of his wisdom and his instruments (unnecessary in this case) he would get the patient to treat in the future. Well, it seems to have turned out just as he anticipated, and as every physician, without being a prophet, knew it would—for that very evening he was summoned by the father of the child to meet Dr. White in consultation.

Now, this honorable physician had, that very afternoon, seen the patient, and had given his opinion (although erroneous) in the case; and where was the necessity for taking along all his instruments, unless for display, and for the purpose of impressing upon the minds of the parents his superior abilities, and the ignorance of Dr. White? Every physician fully appreciates the necessity for the employment of all the instruments mentioned, in certain and very obscure cases; but who among us would deem it necessary to use an ophthalmoscope, a laryngoscope, an ear speculum, a stethoscope, a urinometer, etc., to diagnose a case of "simple intestinal irritation" that was cured in a few days by "chalk mixture well sweetened"? And Harry, too, must have been one of the best of boys to have submitted to such an examination, for every physician knows, who has had experience in the use of the laryngoscope, that it is very difficult, indeed, to employ it in the case of children, and never used unless there are urgent indications for its employment. Few children will allow an ear speculum to be introduced into their ears, even if it was suspected that there was "slight opacity of the tympanum due to thickening around the malleus, and slight œdema over the site of the tensor tympani muscle"! which condition would not be anticipated in "simple intestinal irritation." No wonder, then, that after this long and unnecessary examination of the patient, and after such a display of instruments and knowledge, that Dr. White's "position in that family was a little shaky;" and, although this friend had done his best, in accordance with the Code, to hold up his hands! the result was anything but pleasant to the aforesaid Dr. White.

The inquiry might here arise, does this "observer of the Code" make use of all these instruments with each of his own patients? There certainly would be as much necessity for their employment as in the case of Harry, for medical aid would hardly be called to a case more simple or less dangerous than "simple intestinal irritation." It may be said, in answer to this inquiry, that he employed them at his *first* visit for the purpose of making out a *correct* diagnosis; but, if necessary at his first visit, they were certainly equally necessary at each subsequent visit, for he would naturally be anxious to know how those *fine points* he discovered in the case of Harry were getting along—such as "the choked disc," the thickening around the malleus, the tympanum, and that œdema over the site of the tensor tympani muscle; also that "slight paralysis" of the right vocal cord would need be seen to, as well as the cephalic temperature, which was increased, in Harry's case, $\frac{1}{200}$ of a degree! Then that umbilical ligament! should not be overlooked, to see if it had become abbreviated or elongated since his last visit. Then, again, those "slightly asphyxiated ascares vermiculares" should not be neglected; but, above all, as furnishing the key to the whole mystery, that "slightly elongated prepuce" needed close watching, especially where the case was of so much importance as that of "simple intestinal irritation"!

To have employed all these instruments in each of his own cases, it would take—let me see—we will add the time absolutely required for the use of each instrument, and just forty-two minutes are consumed with each patient—this time multiplied by thirty, the number of patients he was obliged to visit that afternoon before supper, and the conclusion is he must have had a very late supper! The whole story is a farce; and, whether written for the purpose of really showing his kindness to Dr. White, or whether to illustrate how miserably mean a physician can be to a young practitioner, under the guise of friendship and the *letter* of the Code, is difficult to determine. I mistrust the latter. However, such an article ought not to be allowed to go to the medical world without criticism, as it might, possibly, mislead some unthinking physician into a practice of the same tactics.

———, M.D.

Park City, Utah Territory, Oct. 4, 1879.

THE RAW-HIDE JACKET FOR SPINAL DISEASE.

To the Editor of The Medical Record.

Sir:—The discussion on the relative merits of the various mechanical supports for patients with Pott's disease, lately appearing in your journal and emphasized by your editorial review of the subject, leads me to call the attention of your readers to an apparatus not yet mentioned. It is, no doubt, known to many, but I believe not to the majority of the profession. I refer to the raw-hide jacket made by Mr. S. A. Darrach, of this city. Horse-hide, prepared so that it will neither wrinkle nor absorb moisture, is perforated and stretched over a plaster-cast of the patient's trunk. The mould for this cast is not made by a plaster-jacket as in the paper brace, but extension is made while the patient lies in a trough filled with plaster, and a thick layer of the same substance is placed over the abdomen and chest, after a piece of twine has been placed on the sides of the patient. After the plaster has set, the anterior segment is removed by cutting the mould by this twine from the axillæ to pelvis.

Any one who has applied the plaster bandage while the patient is suspended, will realize how much

discomfort and fatigue is saved by this method, and how much more accurate must be the fit. It is almost impossible to prevent a patient while suspended from drawing up a shoulder or hip, the tired and strained muscles involuntarily seeking some relief. This produces a slight wrinkling of the inside of the jacket, and is a frequent source of intolerance. This nearly inevitable wrinkling is noticed by Dr. Vance, who "smoothes them off" before making his cast.

The raw-hide jacket seems to me to have nearly every advantage possessed by the plaster-jacket or steel brace, with several in addition. My experience of these supports, though limited to seven cases, has been carefully considered. In disease of the upper portion of the spine, a head-rest is attached to the hide jackets. In disease of lumbar vertebræ, I think a jointed steel support down the leg to the shoe adds much to its efficacy. Crutches are attached to all of these jackets. To sum up briefly the advantages and disadvantages of this means of support over the plaster jacket:

The latter are: 1. It cannot be applied by the physician, nor even by an ordinary instrument-maker. 2. The expense, $40 to $50.

The advantages are: 1. Durability. They can be worn until outgrown. 2. Lightness. 3. Ventilation through perforations. 4. Possibility of removal for bathing or examinations. 5. Its perfect smoothness, which makes abrasions impossible.

In conclusion, let me hope that the space you have given this subject will be the means of calling such attention to it that its symptoms may be more carefully studied and earlier recognized; that fewer erroneous diagnoses of rheumatism or muscular weakness be made, only to be corrected by the deformity which makes the true nature of the disease but too evident. It is not too much to believe that soon the vast army of hunchbacks walking our streets will receive few recruits—I may say no accessions. Of course there will be some subjects of this disease who, from constitutional taint, cannot recover; but those with enough vitality to convert the breaking-down process into a reparative one, after several vertebræ have been affected, certainly, with proper treatment, could early in the disease be cured without deformity. The physical suffering saved will be enormous, but who can estimate the mental distress prevented?

EMMA WARD EDWARDS, M.D.

NEWARK, N. J., Oct. 4, 1879.

New Instruments.

EAR AND THROAT CASE.

THIS case is intended for physicians in general practice who are constantly required to examine the ears and throats of patients, and do not need to equip themselves with every special ear and throat instrument in use.

It is generally found difficult to keep such instruments together so as to be available when wanted, and therefore, this pocket case, which contains every requisite for aural and laryngoscopic examinations, and which can be carried in the pocket, is recommended. It contains a concave reflecting mirror, with headband, suited very well for either otoscopic or laryngoscopic examinations, and it should always be worn on the head when used, as both hands are thus left at liberty for manipulations. Ear specula, tongue-depressor, and a small mirror for pharyngeal or laryngeal inspection, are contained in this case. The forceps are, if used with ordinary care, useful in dressing the ear or in the removal of foreign bodies. Two vulcanite cotton-wool carriers are provided, one for the ear and one for the throat. When one end of the carrier is wrapped tightly with absorbent cotton-wool, the end portion of the wool projecting in a brush-like form, it may be used in wiping out the auditory meatus so that an examination of the drum-head or tympanic cavity can be made without syringing the ear with water; and medicinal substances can also be carried by the brush to either ear or throat.

A compartment is provided for absorbent wool, and another for probes of silver, etc.

Mr. Ford, of the establishment of the Messrs. Caswell, Hazard & Co., has succeeded in arranging these instruments in a case of very small proportions, and although it is not intended to take the place of the specialist's armamentarium, it will serve a useful purpose, if, from its convenient size and inexpensiveness, it should be generally adopted, and thus encourage more frequent examinations of regions not infrequently affected by disease.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Oct. 12th to 18th, 1879.

HORTON, S. W., Major and Surgeon. To proceed from Omaha, Neb., to Rawlins, Wyo. Ty., and report in person to the Dept. Comd'r. S. O. 91, Dept. of the Platte, Oct. 11, 1879.

GIBSON, J. R., Major and Surgeon. At expiration of his present leave of absence, to report in person to the Comd'g General Dept. of the East for assignment to duty. S. O. 235, A. G. O., Oct. 13, 1879.

BROWN, H. E., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 111, Div. of the Missouri, Oct. 13, 1879.

TAYLOR, M. K., Capt. and Asst. Surgeon. To accompany 2d detachment of the 4th Cavalry from Ft. Clark to Ft. Hays, Kans., and return to proper station upon completion of this duty. S. O. 211, C. S., Dept. of Texas.

VICKERY, R. S., Capt. and Asst. Surgeon. Assigned to duty at Fort D. A. Russell, Wyo. T. S. O. 92, Dept. of the Platte, Oct. 11, 1879.

MIDDLETON, P., Capt. and Asst. Surgeon. Assigned to temporary duty as Post Surgeon at the Post of San Antonio, Texas. S. O. 211, Dept. of Texas, Oct. 7, 1879.

KIMBALL, J. P., Capt. and Asst. Surgeon. Confirms order of Oct. 1, 1879, directing him to proceed to Rawlins, Wyo. T., for duty in the field. S. O. 91, C. S., Dept. of the Platte.

DE WITT, C., Capt. and Asst. Surgeon. Confirms order of Oct. 1, 1879, directing him to proceed to Rawlins, Wyo. T., for duty in the field. S. O. 91, C. S., Dept. of the Platte.

BYRNE, CHAS. B., Capt. and Assist. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City, and on arrival report by letter to the Surgeon General. S. O. 235, C. S., A. G. O.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Columbus, N. Y. H., and assigned to duty at Madison Barracks, Sackett's Harbor, N. Y. S. O. 182, Dept. of the East, Oct. 16, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. Relieved from operation of par. 7, S. O. 210, C. S., from these headquarters. S. O. 211, C. S., Dept. of Texas.

KILBOURNE, H. S., 1st Lieut. and Asst. Surgeon. To report in person to Comd'g General Dept. of the East for assignment to duty. S. O. 235, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.— Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 18, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 11, 1879...	0	14	36	3	21	33	0	0
Oct. 18, 1879...	0	10	31	3	48	31	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 15th to October 21st, inclusive, was 43, and the number of deaths that occurred was 23. The total number of cases for this year to October 22d is 1,522, and the total number of deaths, 540.

WEATHER STATISTICS. — THE EXTRAORDINARY HEAT OF THE PRESENT MONTH.—A close examination of the weather records, kept with great care at the Pennsylvania Hospital, Philadelphia (which extend back to the year 1825), show that within that time there has been no approach to the heat of the present month during any previous October. Since 1825 the warmest Octobers occurred during the years 1835 and 1861, but they bore no comparison to the present month. In October, 1835, the mean of the thermometer was 60 degrees, the maximum 78 degrees, and the minimum 42 degrees; the mercury rarely marking over 70 degrees. The mean of October, 1861, was 60 degrees, the maximum 85 degrees, and the minimum 38 degrees; but the mercury only rose to 80 degrees or over, three days in the entire month.

So far (18th) during the present month the thermometer has stood over 80 degrees on 11 different days, as follows: 1st, 88 degrees; 2d, 84 degrees; 3d, 87 degrees; 5th, 80 degrees; 6th, 80 degrees; 9th, 80 degrees; 10th, 80 degrees; 13th, 80 degrees; 15th, 83 degrees; 16th, 85 degrees; 17th, 83 degrees. The mercury has been over 70 degrees every day in the month so far except on the 5th; it has never at any time fallen lower than 55 degrees. Since 1825 the mercury has never risen higher than 87 degrees in October, except in the present month, and that was for one day in the month only. During October of last year the thermometer was 80 degrees and over on four different days, the average maximum being 66.58 degrees, and the average minimum 50.29 degrees.

Within the past 54 years prior to the present, the mercury has only marked 80 degrees or over during October of those years, 11 times, and then only from one to three days at a time; and it is, therefore, apparent that the present is the warmest October for at least 54 years.

DR. T. JULIUS LEMOYNE, the Father of Cremation in this country, is dead. Dr. Lemoyne was a retired physician, who had amassed a fortune, and who has during the past ten years been experimenting in cremation. He was of French descent, but born in this country in 1797. He graduated at Washington University in 1815, and at the University Medical College, Philadelphia, in 1820. Half a century ago he was Abolition candidate for Governor of Pennsylvania, and later, was candidate for Vice-President on the ticket with Gerrit Smith. He has lived at Washington, Pa., and it is there that his cremation furnace was built. This furnace was the result of much study, and was proved to be a success when three years ago Baron de Palm was incinerated in it. It has now satisfactorily consumed the remains of its originator.

Dr. Lemoyne was a large man, of fine presence, with a very long, silvery beard. He retained his mental faculties and his enthusiasm over cremation up to the last.

BOOKS RECEIVED.

DISEASES OF WOMEN. By LAWSON TAIT, F.R.C.S. etc., Wood's Medical Library. New York: W. Wood & Co. 1879.

SEEING AND THINKING. By the late WILLIAM KINGDON CLIFFORD, F.R.S. London: Macmillan & Co. 1879.

FIRST BOOK OF QUALITATIVE CHEMISTRY. By ALBERT B. PRESCOTT. New York: D. Van Nostrand. 1879.

A TREATISE ON VOCAL PHYSIOLOGY AND HYGIENE. By GORDON HOLMES, L.R.C.P. Edinburgh. London: J. & A. Churchill. 1879.

CLINICAL LECTURES ON DISEASES OF URINARY ORGANS, delivered at University College Hospital. By SIR HENRY THOMPSON. Fifth edition. London: J. & A. Churchill. Philadelphia: Lindsay & Blakiston. 1879.

LECTURES ON THE DISEASES OF WOMEN. By CHARLES WEST, M.D., F.R.C.P., with additions by J. MATHEWS DUNCAN, M.D., LL.D., F.R.S.E. London: J. & A. Churchill. Philadelphia: Lindsay & Blakiston. 1879.

TRANSACTIONS OF THE NEW YORK OBSTETRICAL SOCIETY for the years 1876, 1877, 1878. Vol. I. New York. 1879.

Original Lectures.

TYPHOID FEVER IN INFANCY AND CHILDHOOD.

A Clinical Lecture delivered in Bellevue Hospital,

By A. JACOBI, M.D.,

Professor of Diseases of Children in the College of Physicians and Surgeons in New York City.

(Reported for The Medical Record.)

Part II.

COMPLICATIONS OF TYPHOID FEVER.

Gentlemen:—Let us next study something of the complications of typhoid fever. Now and then you find *pneumonia* with it in the adult, and it is then chiefly hypostatic in character. In children it is more frequently *not* hypostatic in character. For most children sick with typhoid fever are not in bed to such an extent as are adults. Even, as you know, adults sick with typhoid fever will sometimes walk about during the entire course of the disease. Children may have bronchial catarrh to a certain extent, the same as adults. In the adult the bronchial catarrh does not generally lead into pneumonia. In children the case is different. In a large majority of cases, pneumonia occurring in children is of the lobular variety, and the immediate result of a bronchial catarrh; in other words, there is a *broncho-pneumonia*. The small branches of a bronchus become obstructed by viscid mucus, especially when the respiratory movements are not active, collapse of the lung sets in, hyperæmia follows, and lobular pneumonia is developed. Thus it is why pneumonia is chiefly found toward the latter stage of typhoid fever in the adult, while it is not infrequently developed in the beginning or at an earlier period of the fever in children. While typhoid fever may be a very mild affair in childhood, this complication is frequently very severe. It is always well, therefore, to be upon the lookout for its occurrence, and never to be satisfied with a single examination. I came near being satisfied in this case here with the diagnosis of broncho-pneumonia, but a second examination prevented me from falling into that error.

Another complication which may be present is *meningeal hyperæmia*. As soon as the functions of the muscles become reduced, especially those of the heart, which is particularly apt to occur in cases in which the fever is high, and consecutive granular degeneration takes place, you must expect less propelling power on the part of the heart, and then meningeal hyperæmia is not infrequent in the brain and in the spinal cord. Now and then such children have a little obtuseness of hearing and slight twitchings. The spinal symptoms, as a rule, are not dangerous. The brain symptoms *are* dangerous, and, as a rule, they will be developed with the occurrence of high temperature. It is, therefore, of the utmost importance to reduce the high temperature as speedily as possible.

The complication with *diarrhœa* is not a frequent one. It is seen now and then in bad cases, but in the majority of cases it will be entirely absent. When it is present you have not always reason to suppose that there is ulceration of Peyer's patches.

For in the beginning there is extensive hyperæmia, with over-secretion only; in the later weeks diarrhœa means ulceration. On the other hand, however, the presence of intestinal ulcerations does not necessarily bring on diarrhœa in either the adult or the young, as might be supposed by those who study typhoid fever, as it appears with us, through European text-books. In the Mount Sinai Hospital I lost a man from perforation of a typhoid ulceration, after a protracted illness, with never so much as a single attack of diarrhœa; and in Ward 28, Bellevue Hospital, a girl of ten years from the same cause, without a single loose passage during the whole course of the disease.

PROGNOSIS.

As a rule, in most cases of typhoid fever occurring in children, the disease runs a mild course. But few cases terminate fatally. When they do terminate fatally it is not usually the typhoid fever which kills, but the complication, and, therefore, it requires an attentive physician to pronounce the prognosis in such cases. In most cases it is the broncho pneumonia, or the height of the fever, if the fever be high, which is dangerous. Pneumonia is always to be looked for. The large percentage of mortality which is reported in cases of typhoid fever treated in infant asylums from year to year may, in view of what I have said, surprise you. For instance, the mortality in typhoid fever in the Paris Hospital is large, and in every hospital it is always so. In private practice probably your mortality will not be more than one in ten or twenty, and in many epidemics very much less. But remember that there are cases in which all the symptoms of adult typhoid fever may be developed. In such the prognosis ought to be guarded indeed.

TREATMENT.

Typhoid fever in childhood must be considered as a very manageable disease, if taken in time. How is it to be taken? Remember that the danger in a disease which does not produce a great deal of anatomical change is found in its long duration and in the height of the fever. A low fever which lasts long will finally become dangerous by producing disintegration of tissue, if by nothing else, besides by interfering with digestion. But high fever may prove dangerous in a very short time. When the temperature rises to 105 or 106 F. the baby may pass into a convulsion, and that convulsion may be a fatal one. In late years the high temperature has been extensively treated by the use of *cold water* in the form of *cold bathing, sponging*, and the *cold pack*. The treatment has commonly been to place the patient in a tepid-bath, which is reduced to a lower temperature by the gradual addition of ice or cold water, until the point desired is reached. The temperature of the body is reduced in this manner. In a few hours, sometimes within half an hour, the temperature may be just as high as it was before the bath was given. Now and then, the effect will last for four, five, or six hours. In order that a child may be safely bathed with cold water in this way it must have vitality enough to establish reaction; that is, as soon as the baby is wrapped up the surface must begin to become warm again. If it does not there is great danger, for you must recollect that the diminution of the temperature of the body takes place in large part from the skin. If the skin remains cool and the blood-vessels remain contracted, a very hot blood certainly cannot cool. In such cases where reaction was not readily established, I have introduced the thermometer into the rectum and found a high temperature. That condi-

tion of things is very dangerous indeed. Therefore, after having the child in a cold bath, if reaction was not at once established, I have sometimes reduced the temperature by plunging it into a hot bath, which has the effect of restoring the circulation on the surface of the body, and thus enabling the blood to throw off a part of its heat. In this manner I have seen a temperature of 106° F. in the rectum reduced within a few minutes to 102° F., or even lower. You will do well to be especially careful when the feet remain cold after a cold bath. When such is the case I consider the case none that will bear, or thrive on, the cold-water treatment; and I believe that in such cases you will do better to give up the cold bath entirely. As a rule, in such cases, washing the surface with cold water, down as far as the thighs, is sufficient.

Now and then the cold pack over the chest and the abdomen may be used with good results. In fact, it is preferable where reaction will but partly set in. Where, as in the above cases, the feet are apt not to recover their warmth speedily, cold packing of the *trunk only* is beneficial, not only in infectious, but also in inflammatory fevers. In the pack the child is to be retained until both pack and surface become slightly warm—provided this occurs soon; for, when a long time is required before reaction sets in—say twenty minutes or more—the pack and cold-water treatment are dangerous. When the body warms up within eight or ten minutes, the pack ought to be changed at once, and not remain until the body is quite warm again. In all cases, however, much depends on two things—firstly, on the general condition of the child, and secondly, on the intelligent watching of the little patient by both physician and nurse. Here, as everywhere, the Latin proverb holds good, that when two do the same thing, it is not always the same thing.

We also know that *quinine* reduces temperature, and therefore it is given when the temperature is high. Here again you are to remember, that this remedy is always to be used with a little care. Small doses of quinine will not reduce the temperature, and if the baby requires eight, ten, or fifteen grains daily, it should be given in one or two doses. If the temperature is very high, from twelve to sixteen grains may be given at a dose. But you have to be careful with reference to the size of the dose, for the quinine may not be digested at all. In general, in fevers, quinine is not readily digested, or readily dissolved in the stomach, so that it can be assimilated. Thus, when quinine is given, it should always be administered in solution, and the *muriate* is preferable to the sulphate, because the sulphate requires a great deal of water to dissolve it, while the muriate requires only a proportionately small quantity of water. If muriatic acid is added to the sulphate of quinine, of course it is made more soluble, but it is less likely to be well tolerated by the stomach. The taste of quinine is something which is disagreeable. One of the preparations which is most easily taken is the *neutral tannate of quinine*. It is not very soluble in water outside of the stomach, but it appears to have a very good effect. It contains about forty per cent. of the quinine contained in the sulphate, and therefore must be given in proportionately large doses; one grain of the sulphate being equal to two and a half of the neutral tannate. As this preparation was originally made, according to the old formula, it is almost absolutely insoluble, and therefore should not be given at all. Whatever preparation you may use, do not forget one rule which is set down as a positive fact, principally by Liebermeister. Now and then it will happen that you cannot reduce the temperature at all by administering frequent doses during the day, say ten-grain doses to an adult three, four, five times a day, whereas by the administration of the whole quantity in one or two doses satisfactory results will be obtained. This is nothing absolutely new, for I said the same thing sixteen or eighteen years ago, and also published it, and at that time I was tabooed for it. I have, however, had the satisfaction since of knowing that those who then disliked my so-called large doses of quinine have outdone me by far, and I have occasionally been startled at the size of the doses which my colleagues and my former pupils have not hesitated to employ.

Salicylic acid and the *salicylate of soda* are remedies which are used to reduce high temperature I have already taken occasion to speak of these remedies some time ago, and in the treatment of the high temperature of typhoid fever they may do a great deal of good. I do not hesitate to recommend them in spite of what has been said with reference to salicylic acid producing a tendency to epistaxis and hemorrhages in general. It is true that now and then hemorrhages occur in cases in which there exists a predisposition, but we must not believe that every hemorrhage which takes place is due to the salicylic acid, for we know that in typhoid fever hemorrhages occur from the disease itself.

When you succeed in reducing the temperature in typhoid fever the game is half won. Therefore remember that the principal object is to diminish the body heat and make the patient comfortable. You cannot reduce the duration of the disease, it is true, but there is a vast difference between a typhoid fever which runs three or four weeks with a temperature of 104° or 105° F. and one which runs three weeks with a temperature of 101° or 102° F. A great many cases will not die of the disease, but of complications a number will die after convalescence has been established, and the more protracted the convalescence is, the more likely complications are to occur, whatever these complication may be. Salicylate of soda may be given to a child in doses of three or six grains, three, four, five times in the course of twenty-four hours, and it will occasionally reduce a high temperature which is not affected by quinine. I will here repeat what I have already said in another place, that when quinine does nothing, that when salicylic acid does nothing, the combination of the two remedies will sometimes give surprising results. These results I have verified both in private and in hospital practice.

Digitalis has been recommended. Now and then there may be an indication for its use in small doses, for the purpose of invigorating the heart's action.

Veratrum viride has been recommended for the same purpose, but I advise strongly against it, because its action is sedative, and sometimes it produces very disagreeable irritant effects upon the mucous membrane of the stomach and intestines, an effect which certainly you wish to avoid in no disease more than in typhoid fever.

Look after the patient's general condition. Now and then, even when there is not much fever, you may use *stimulants*, and if stimulants are indicated anywhere, it is in infectious diseases. There a baby of almost any age, from one year and over, may take an ounce of brandy or whiskey within twenty-four hours. It should never be given alone, for its action upon the physiological function of the stomach is disagreeable; therefore it should always be given in milk, or water, or barley-water, etc. In occasional cases, stronger stimulants, or a combination of stimulants, will be required.

Camphor is an excellent stimulant, and to a child two, three, or four years of age, you may give from two to ten grains of camphor every day for a number of days in succession. I believe that camphor has fallen into disrepute as a stimulant, because the doses given have not been sufficiently large. It has been recommended in pneumonia, and used to considerable extent; but is often replaced by carbonate of ammonia and other stimulants. Carbonate of ammonia is certainly a good stimulant, but one chief objection to it is that its effect is very temporary, and in order to secure its continued effect the doses must be repeated very frequently, whereas the effect produced by camphor is something more permanent. I have seen ten-grain doses of camphor given to a child less than two years old in collapse of pneumonia, and the child revived, and is yet alive. It requires, however, a prudent and courageous practitioner to give such doses in the face of the prejudice against large doses of the drug, and indeed, such large doses are only very seldom required.

Musk is another powerful stimulant, and perhaps the most powerful of all. It also has fallen into disrepute as a stimulant, perhaps, because the doses recommended have been too small. The remedy is quite expensive, and I have no doubt that because of its price the doses recommended have been smaller than they should be. To a child two years old, who is in collapse, requiring the use of a strong stimulant, never give less than one or two grains of musk, and repeat the dose every hour. You may give musk in such doses as will reach twenty-five grains in the course of twenty-four hours, if an efficient stimulant is required. In some cases the results obtained will be admirable when nothing else seems to produce any effect whatever. At the same time do not forget that when you wish to obtain a speedy effect you must not rely upon the stomach. Do not forget that the stomach of a person in such collapse as requires the use of strong stimulants does not digest, for the stomach is feeble, like the other organs, and absorption does not take place. In such cases you must resort to *subcutaneous injections* of ether, or brandy, or alcohol, or camphor, dissolved either in ether, or in oil, or brandy. But you must be sure when camphor is dissolved in oil, or ether, or brandy, that the solution is not too strong, for if it is, the ether or brandy will be absorbed within a very short time, and the camphor left remaining in the subcutaneous tissue. My first experience of that kind I had in connection with the subcutaneous injection of quinine. I once succeeded in making a solution so strong that three drops contained one grain of quinine, and I soon after used it for purposes of subcutaneous injection, administering ten grains at each dose. These doses were repeated some thirteen or fifteen times. The patient died. I made a post mortem examination, cut down upon the place where I had injected the quinine, and there it was, every particle of it. The water had been absorbed at once, and the result was that the quinine remained intact in the subcutaneous tissue. The same thing may occur with camphor, and you are not to forget that, if too strong a solution is used, the remedy may remain unabsorbed beneath the skin.

HEMORRHAGE FROM THE BOWELS.

What is to be done when hemorrhage occurs from ulcerations in the bowels, rare though it may be? I have seen such a case, and I treated it by the use of *opium* [illegible]. As far as opium is concerned, it seems to be contraindicated in infectious diseases because of its sedative effect. In the last century there were some authors who said that opium was a sedative, while others said that it was not a sedative at all, but an excitant. Then there was a war of opinion which lasted for about twenty years, and still the question was not entirely settled. From what is now known of the drug, I think the question concerning its effect can be readily answered. Opium administered in small doses is an excitant, but when given in large doses its effect is sedative. There are very many cases in which the effect produced by opium given in small doses is plainly a stimulant. For example: in a case of pneumonia and endocarditis which occurred in my service at the Mount Sinai Hospital, I wished to obtain the stimulating and the constipating effect at the same time. For the patient, an adult, had a great deal of diarrhœa at the same time, and I gave him one-fifteenth of a grain of opium every hour with a very beneficial result. The accumulation of the opium after a time arrested the diarrhœal discharge, and, together with camphor and brandy, it acted as a stimulant, and the patient made a good rally.

Alum does good in cases of hemorrhage from the bowels, and is better than tannin, because it interferes less with digestion.

Hemorrhage will now and then be found in connection with a case of typhoid that has continued for a long time. I have seen one such case. It was in a boy six years of age. In that case I resorted to applications of ice. An ice-bag was kept constantly applied over the ileocæcal valve, and at the same time a moderate amount of opium with a great deal of alum was given.

These are the principal points of importance in connection with the typhoid fever of infants and children. It was not my object to enter upon the study of the subject of typhoid fever in general, for that belongs within the domain of another clinic.

In regard to food, the first indication is this, that the digestive organs should not be overloaded, and that the food should be fluid. The second, that the patient should have enough nutriment. Both of these indications are valid for both the disease itself and convalescence. The intelligent practitioner will know how to deal with the individual case.

THE HISTORY OF AUSCULTATION.

AN ABSTRACT OF A LECTURE DELIVERED IN THE PRELIMINARY COURSE, 1879.

BY JAMES T. WHITTAKER, M.A., M.D.,

PROF. THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

GENTLEMEN:—The purpose of your coming here is, more especially, the education of the special senses for the detection of disease. Ambrose Paré wrote once a work entitled "Table méthodique pour cognoistre les maladies par les cinq sens" (a Systematic Table for the Recognition of Disease by the Five Senses). In his day (1560) the use of one of these senses for this purpose, that of hearing, was little known. The physician heard, of course, the history of the patient, and thus of the disease, indirectly, but from an unskilled witness. With the discovery of auscultation the disease itself spoke directly to the ear of the educated physician. How much was thus added to the sum of our knowledge becomes apparent from a single statement. Before the discovery of auscultation, all diseases of the lungs (phthises, pleurisies, cancers, abscesses, etc.) were considered, in life, at least, as varieties of pneumonia. Since auscultation, we are able to dif-

erentiate varieties of pneumonia itself. The evidence offered by auscultation, in diseases of the chest, outranks in value that furnished by every other means of investigation. In many cases a diagnosis without it is absolutely impossible. In all cases it is the last and most effectual appeal.

But, before we engage upon the practical study of auscultation, we must say something of its history. A book, unless full of original work, which contains no reference to the past, is unworthy of preservation, and a course of lectures without some recital of the history of the subject is unfinished, and can make no permanent impression. A great French physician, Littré, once said: "It is the history of medicine which makes it a science instead of a trade." In fact, a subject without a history is as tame as a river without traditions.

The discovery of auscultation is an exception in the history of medical discoveries. Of most of them, it may be said, that were developed by evolution. By line upon line they are written. The final revelation to decipher and illumine the entire text is a natural and necessary sequence, and the period of its disclosure is a mere question of time. But it was different with auscultation. It came all at once. There was nothing known of it for thousands of years, when with the advent of one man it came. Auscultation was the creation of Laënnec. The value of it has been disputed, but never its authorship. Percussion, the sister of auscultation, was mature already when auscultation was born. Some mode of percussion had been practised since the time of Hippocrates. Preceding the publication of Laënnec in 1819, there are only intimations of the possibility of auscultation, and these have been hunted out of musty volumes only within the last few years. All the glory of auscultation belongs to René Théodore Hyacinthe Laënnec, and the history of it, like the history of a nation founded by a great king, is, in large measure, the history of an individual.

Laënnec would probably never have discovered auscultation, had he not been a pathologist first. It was at the time when clinicians were just beginning to look upon diseases as lesions of organs. Laënnec was looking at the lesions in the lungs after death. He was at work upon a classification of diseases based upon anatomical lesions, limiting himself, however, to diseases of the chest, which always seem to have had for him especial attraction. For eighteen years Laënnec worked in the field of pathological anatomy before the clinical fruits of it were ripe. Laënnec was born in a little country town, Quimper, of Brittany, in 1781. He was raised by his uncle, a physician at Nantes, and came to Paris to prosecute his studies very young. His first public allusion to his work was in 1815, when he called the attention of the Paris Academy to the value of auscultation in a case of hydrothorax which he presented. It is supposed from the character of this case that his first intimation of auscultation was derived from the old Hipprocratic succussion which has now fallen into disuse. But Laënnec had shown signs of talent long before this in works on Hippocrates and on entozoa.

It does not seem strange that auscultation of the lungs should have been discovered after, and in consequence of, auscultation of the heart. For the recognition of the tumultuous action of the heart had attracted the attention of even Hippocrates, and it was his custom, as it was the custom of all his followers, to put the hands over it, that is, to practise palpation, in diagnosis of its condition. It is established by his writings that Hippocrates even put his ear upon the chest in his endeavor to recognize the condition of the heart. But with the exception of a record by a single observer, nothing more was written of auscultation up to the time of Laënnec.

Laënnec's friend, Bayle, who had recently written the best work extant on tuberculosis, had called his attention to the ease with which the sounds of the heart might be recognized by the ear in cases where the hand might fail in appreciation of them on account of embonpoint or surface dropsy. Just such a case presented itself to Laënnec in the person of a young lady, and the reserve which this case imposed led him to roll up a piece of paper in the form of a cylinder, that he might practise mediate instead of immediate auscultation. To his great surprise, the sounds of the heart, instead of being diminished, were intensified. It now occurred to him to extend his observations to ascertain the state of the lungs, the voice, the pleura, and pericardium. This was the birth of auscultation. It was in 1816—Laënnec was just thirty-five years old. He worked with his new discovery three years, having been appointed in the meantime physician to the Hospital Necker, and then, 1819, he published the first edition of the work which has since immortalized his name. It is in two volumes, and is entitled "De l'auscultation médiate ou traitè du diagnostic des maladies des poumons et du cœur fondé principalement sur ce nouveau moyen d'exploration."

In 1823 he established his clinic at the Charité; in 1826 he became Professor of the College of France, Professor of the Faculty of Medicine of Paris, member of the Academy, etc., and in the same year, in the act of publishing the second edition of his work, he fell a victim to the disease, phthisis, the recognition of which he had done more to establish than all his predecessors.

Laënnec's stethoscope was a curious piece of mechanism. It was a wooden cylinder, a foot and a half long and an inch and a half thick. It was perforated throughout its length by a canal one-fourth of an inch in diameter. The bottom of it was hollowed out like a funnel. For convenience of package it was made of two pieces screwed together in the middle.*

I show you here a dozen varieties of stethoscopes, solid and tubular, rigid and flexible, of wood, bone, hard rubber, and metal. None of them have any essential advantage over the original instrument of Laënnec, and, as we have since learned, no one of them is as good as none at all. For the *auditus eruditus*, the educated hearing, is not a question of mechanics, but of the perceptive faculties and the intellect.

Some vague references to auscultation have been discovered in the writings of Cœlius Aurelianus on acute diseases, of Ambrose Paré in his "Table méthodique," etc. (*phénomènes perçus par l'ouie*), of Quarin, and of Harvey; but the sole reference that merits notice, from the time of Hippocrates down, is a curious statement of Robert Hooke in 1680, recently exhumed by Tyndall.

"It is not impossible," said Hooke, "to discover the modes of motion and the action of bodies by the sound which they produce. As in a watch we may hear the stroke of the balance, the rotation of the wheels, the friction of the works, the shock of the

* Mons. A Chereau relates, Arch. Gén. de Méd., July, 1879, that Laennec's first device after the paper roll, was a "tubular cylinder of gold-beater's skin, which he filled with air by means of a spout, and of which the central opening was maintained by means of a support of pasteboard." The author speaks of having seen in his youth the first wooden instrument, and "in truth it had a size altogether useless and well adapted to terrify patients."

hammers, and many other sounds, may we not discover the movements which take place in the interior of bodies, animal, vegetable, or mineral, by the sound which they produce, recognize the works accomplished in the interior of the divers factories of the human body, and learn thus what are the instruments or the tools which functionate badly, at certain times, abnormally with others? . . . . I feel the blood mount to my face, when I consider with what disdain the majority of men will receive what I am about to say: I have found more than encouragement in recognizing by experience that I could hear perfectly the strokes of the heart of man like an accustomed sound, the coming and going of gases in the intestines or in other small vessels, that I could distinguish the state of the lungs by the sound of the respiration, the rheum of the brain by the sniffling of the nose, the displacement of joints by the clicking, and the sensation of the movement of organs in displacing each other." I quote this passage second-hand from the "Traité de percussion et d'auscultation," by E. J. Woilley, Paris, 1879, p. 124. The words of the English author may therefore be somewhat different, though I repeat to you a literal translation; but the sense must be completely expressed. Not many of us would blush now to have been the first to recognize the possibility of auscultation of the heart and lungs.

Auscultation has had a wide range since its discovery by Laënnec. A new special sense was added to the recognition of disease. Attempt is now made to utilize it in every cavity and over every solid organ of the body. I need hardly more than mention the value of it in the diagnosis of anæmia or of an aneurism. But nowhere has it furnished such brilliant disclosures as in the field of obstetrics. And here, strange to say, it gives evidence of more positive value than in diseases of the chest. For, as Skoda has so clearly shown—and this is the chief merit of his work—an auscultatory sign is not pathognomonic of any disease of the chest, as the old French authors taught. Any sign may be heard in almost any disease. An auscultatory sign means not a certain disease, but a certain condition of the lungs, a condition which may be produced by a great variety of diseases. Whereas, auscultation of the fœtal heart means always, absolutely, beyond dispute, the existence of gestation and the life of the fœtus.

Mayor, of Geneva, first announced the recognition of the sound of the fœtal heart in the *Bibliothèque Universelle de Genève*, vol. ix., November, 1818. Mayor was listening for active movements of the fœtus, with the head directly upon the abdomen of the mother, when his quick ear detected the finer movements of the fœtal heart. It was a purely accidental discovery, but was not without its import to the Genevese physician. He even proposed to utilize its presence or absence to determine the life or death of the child. Like most of the discoveries of pure accident, however, the sound of the fœtal heart did not impress its real discoverer with its full and varied significance. There was no mention of it further, and it was reserved for Kergaradec, the friend and pupil of Laënnec, to rediscover it, and fix it as a fact forever. Kergaradec's discovery, or rediscovery, was totally independent of, and without the knowledge of the previous publication of the physician of Geneva. It happened in the prosecution of studies with the stethoscope, then the novelty, and the discovery of his friend and preceptor, Laënnec. Kergaradec was listening for a wave-sound—a motion of the waters by concussion from the limbs of the fœtus—which he failed to detect, of course, as there was no free space or air by which sound could be produced; but it was while still listening for these impossible sounds, that there struck his ear the tic-tac of the fœtal heart, which he recognized at once. Listening now for the fœtal heart, he detected that other sound, the birthright of whose discovery is indisputably his, viz., the sound of the uterine or utero-placental souffle.

The committee appointed by the Paris Academy reported favorably upon these sounds, and thus the discovery received at once scientific recognition. But there were not wanting objections to their value. Dugés and Baudelocque were not willing to accept them as diagnostic signs of pregnancy. Maygrier claimed that they should be accepted as only corroborative signs, and Fodéré maintained that the sound was too deceptive. But when Lenormand discovered the existence of a pregnancy in a case which had been treated for seven months for scirrhus of the right ovary, the objections all fell to the ground. Laënnec himself at once accepted the obstetric sounds in their full significance. In the second edition of his work he incorporated the "Mémoire sur l'auscultation appliquée à l'étude de la grossesse," read by Kergaradec before the Royal Academy of Medicine, December, 1821, and declared that he had confirmed the truth of all its statements. Laënnec himself paid to the skill of Kergaradec the highest compliment he could receive—a compliment keenly appreciated under the circumstances, as we may well understand—when he wrote "the study of the phenomena we are about to describe demands incomparably more attention than that of any connected with diseases of the chest." *

Of the varied significance of the fœtal heart-sounds in determination of life, position, single or multiple fœtus, sex, etc., this is no place to speak. It is a chapter that belongs to the chair of obstetrics, where every instruction will be imparted; but I cannot refrain from noticing for one moment the meaning of it in determination of pregnancy itself. I have before me a work on obstetrics, published at Weimar in 1822, Froriep's well-known "Handbuch der Geburtshülfe," a text-book in its day in various schools. News travelled slowly fifty years ago. No mention whatever is made of the sounds of the fœtal heart. Under the diagnosis of pregnancy are given many curious signs, thickness of the neck, for instance, from thyroid enlargement, increase in the size of the buttocks, etc.; these, of course, after cessation of the menses, changes in the mammæ, cervix uteri, etc.; and finally, the author concludes, p. 186: "There is, therefore, no single absolute sign that alone and in all cases determines the existence of pregnancy, except the actual commencement of labor, dilatation of the os, and distinct palpation of the presenting parts of the fœtus." †

Since the days of Kergaradec a skin disease is not easier to read than is pregnancy after the fourth or fifth month.

I think I need scarcely make an apology for this detail upon a part of the subject which strictly belongs to another chair. We are engaged with the history of auscultation in general. Obstetric auscultation was discovered and established by general clinicians, and is the most brilliant chapter in the whole book.

Auscultation in our day has ceased to be a novelty.

* "L'étude des phénomènes que nous allons décrire demande incomparablement plus d'attention que celle de ceux qui appartiennent à la maladie de la poitrine." V. . . . , p. 105.

† Es gibt somit kein Zeichen, welches allein und in allen Fällen über das Vorhandenseyn der Schwangerschaft entscheidet, ausser dem wirklichen Anfange der Geburtsarbeit, wo das Daseyn des Kindes freilich keinen Zweifel mehr Raum lassen. P. 186.

The lustre of its value has been apparently dimmed by later aids to diagnosis. The microscope, ophthalmoscope, laryngoscope—above all, in our day, the aspirator—appear before the stethoscope. But it is only because of their novelty. The stethoscope remains the symbol of clinical medicine.

Original Communications.

HEAT IN THE TREATMENT OF FEVERS.

By FRANK ALLPORT, M.D.,

SYCAMORE, ILLINOIS.

An enumeration of the many indications for the use of external heat in treating disease, together with the pathology of such affections, and the distinct evidences for its administration, would be incompatible with the aim and scope of this paper. My endeavor is simply to bring before the profession, some of the more important points, relative to the efficacy of external heat in battling with some pathological conditions, and to enter a plea for its more extended adoption.

When the opinion is advanced, that in the essential pyrexiæ this agent is most signally useful, the writer would not be misunderstood as conveying the idea, that here alone is benefit observable. Its administration is advantageous, under proper restrictions, in all diseases dependent upon internal congestion and deficient elimination.

The system is constantly undergoing the process of absorption, and that of elimination. Both are vital in their effects upon the animal organism. An individual may die of inanition, or may have the avenues of elimination so effectually disturbed, as to cause his demise. So accurately is the human frame constructed, that no one may enjoy perfect health unless each organ or organs of absorption and elimination, properly perform their functions. In case one means of casting off waste product becomes incapacitated, others endeavor to perform the work, and vicarious elimination is established. When one organ, or set of organs, thus assume the office of others, the additional labor is manifested in a corresponding degree of disease, in the overtaxed part. If the bowels or kidneys are impeded in action, and the tissues of the body become infiltrated with extraneous substances, a foul odor is observable in the exhalations from the skin, and lungs, and pathological conditions are the natural result. The human body contains 2,300,000 sweat-glands, from which nearly two pounds of perspiration should be lost daily. Let this amount be materially reduced, and the system quickly responds to the deleterious influences of the non-eliminated poisons, while the organs vicariously performing the skin's labor become correspondingly diseased.

In essential fevers, perhaps the most constant conditions are a variable amount of visceral congestion and a heightened temperature. The origin of the former is conjectural, but the latter is probably largely due to the non-elimination of effete products, occasioned by more or less inflammation in those organs elected for such work.

Physicians are lamentably prone to imperfectly distinguish between heat *proper*, and the factors producing it; at the same time, ascribing results, effects, etc, to the former, which should be attributed to the latter. For example, Liebermeister states in Ziemssen's Cyclopedia, that "by far the greater number of those who succumb to typhoid fever, die from the effect, directly or indirectly, of the fever-heat." He also assigns the nervous symptoms of this disease to the same cause, and even, finally, goes so far as to consider death in typhoid fever, from whatever cause, as attributable to exalted temperature. A careful analysis of the conditions involved will, I think, convince one that the original difficulty is, as already stated, largely non-elimination. This it is which mainly aids in the generation of heat and the production of death. With these contingencies in view, a line of practice inducing vicarious elimination is indicated. Catharsis and diuresis are inadvisable, from a pre-existing irritability of those organs, acted upon by agents producing such effects. Profuse diaphoresis becomes, therefore, a desideratum, and for this purpose, nothing is so efficacious as the external application of heat. It opens the mouths of the tightly closed cutaneous pores, and liberates the perspiration loaded with the products of disease. Acting thus it becomes in the strictest sense an antipyretic.

Another agent of this character that has achieved great reputation, is the external application of cold. These two agents are apparently so diametrically opposite in their action, as to excite the inquiry, how both can be utilized in treating similar affections. In pursuance of this query, a brief analysis of the action of each will be made.

With cold, a shock is first produced, impelling the blood to the visceræ, and closing the cutaneous pores. A reaction is soon expected, upon which the blood flows to the surface and relieves visceral congestion, a perspiration breaks forth, and the temperature is reduced. With heat, a subtraction of blood from visceral organs is first produced, simultaneously seeking the surface. The pores are opened. A quickly acquired profuse perspiration soon occurs, and as the system is emptied of the accumulated poisons the temperature falls.

I have said, in reference to cold, "a reaction is *expected*." Unfortunately this is not invariable, in which case death ensues, attributable to non-recovery from the shock. Reaction, therefore, accomplishes the benefit, by saving the patient's life from the first effect of the remedy. It is not, then, to the *immediate refrigerant action of cold* benefit must be ascribed, but to the powerful recoil of the system, from the shock produced by the application.

The antipyretic method of treating fevers is acknowledged, by those most capable of judging, as superior. Granting that cold and heat stand first in the category of such remedies, it remains to decide which of these, duly considering all things, should meet with the more approbation. At this juncture I will quote from the editor of the British Medical Journal and Prof. Liebermeister (both advocates of the cold bath), while speaking of this method of dealing with fevers. The former says: "The only contra-indications to this treatment are, first of all, hemorrhage from the bowels in typhoid fever, even if it be present in the slightest degree. Perforation also precludes its continuance" The latter regards hemorrhage from the bowels as constituting one of the contraindications to the use of cold baths, and yet claims that this very complication is lessened in frequency by the *use of cold*. He says: "*It is possible that the determination of blood to the internal organs, caused by the abstraction of heat, may increase the tendency to hemorrhage.* The same thing, of course, holds true to a still greater degree in case of perforation of the bowels." Admission is here made that cold induces

a determination of blood to the internal organs. If this be true, and visceral congestion is one of the pathological conditions of typhoid fever, it would appear that any remedy aggravating this condition, would *always* be contra-indicated.

Liebermeister leaves the reader to infer, that a reduction of febrile action is expected when the surface of the body is cooled, and the internal organs congested, for he distinctly states, that abstraction of heat by the application of cold, induces a determination of blood to the viscera. This is strange philosophy, and would seem to indicate that the cutaneous surface is the most important seat of disease in typhoid fever.

The cold-water system is losing favor, and statistics from various hospitals, as stated by Dr. Peters, of Cohoes, N. Y., and others, indicate that it does not, in many instances, compare favorably with even expectant treatment. The hospitals in Vienna and Paris have declared against it. The mortality at Ulm, Stettin, Rheinau, and Ostprussen has been increased by it. Wunderlich, of Leipsig, reports a large percentage of deaths by this treatment, and Drs. Flamarion, Grimshaw, and Pepper hold the cold bath system in decided disrepute.

Liebermeister states, as the result of investigations in the hospitals at Basle, that there were, before the introduction of cold water, $7\frac{1}{10}$ per cent. of relapses, with two deaths. After the introduction, $9\frac{8}{10}$ per cent., with ten deaths.

Notwithstanding he attempts to explain away this unfavorable comparison, it is conceded that the cold bath treatment probably increases relapses, and he says: "If relapses are more frequent under antipyretic treatment, it seems natural to conclude that this treatment in so far interferes with the normal course of the disease as to retard the development, destruction, or expulsion of the poison as a whole, or entirely to prevent these changes in a certain portion of the poison." These investigations, etc., have induced Liebermeister to confess that he does not regard cold bathing as the remedy *par excellence* in typhoid fever; in fact, he observes that, "If I were forced to the unpleasant alternative of adopting only one or the other of these two remedies (cold water or quinine), I should, in the majority of cases, choose the latter."

Biermer and Lindwarm consider that this treatment increases relapses, and Shultze states: "It causes a considerable increase of hemorrhages by $4\frac{3}{10}$ per cent." He also says: "The different forms of delirium and complications are much increased." Lichtenstein asserts that he has observed 1,960 cold baths in typhoid fever, and that in 380 of these the temperature of the body was as high two hours after the baths as before, and *sometimes higher*.

Another argument against the cold bath is that too careful watching is required. Dr. Albutt, of England, an advocate of this system, says: "I would urge the continued presence of a medical man. The whole treatment must be managed with the utmost precision, and all tendencies to shiver or syncope should be watched by a skilful observer, or *irreparable disaster may be done in five minutes*." Is it proper to continue the use of this remedy, so potent for evil, when we have in heat an agent both superior and less dangerous?

A comparison of the reduction of temperature produced respectively by the application of cold or heat, shows the former as more decided in its action. Dr. Beal cites cases from the practice of Dr. Wilson Fox, where the temperature was reduced, by a single immersion, eleven degrees. The reduction by heat has never, so far as I can learn, equalled this by several degrees. This might at first be deemed evidence favorable to cold; on the contrary, it is antagonistic to it. There can be no doubt that such rapid and eccentric changes are usually of positive injury. It must be remembered that, after a reduction, a contraction occurs, and the thermometer will soon register a rise in degrees, which may equal, and even exceed, that previously lost. Such decided and sudden vacillations are surely pernicious. What we require is a gradual but positive declination of temperature, such as obtains with the proper application of heat. Dr. Albutt states that a too rapid diminution of temperature is positively injurious in fevers. With this idea in mind, he endeavors, while still clinging to the cold bath, to somewhat modify its application, in order that so rapid a diminution may not be produced.

Neither heat nor cold is a specific in fevers. The benefit they accomplish is performed through profuse diaphoresis, by vicariously eliminating the manufactured, but imperfectly excreted poisons; thus relieving visceral congestion, and placing the system in a better condition to withstand the deleterious effects of the fever. My claim is, that heat accomplishes the desired result *better than cold*, and with far less danger.

In conclusion, I would beg leave to reply, very briefly, to Dr. Cowling's criticism (RECORD, Sept. 13, 1879) of my article on yellow fever, appearing in the RECORD of Aug. 16, 1879. He sees no analogy between Dr. Leared's experiments, and the applicability of the Turkish bath in yellow fever. The experiments referred to proved by ophthalmoscopic examination that internal congestion was lessened by the external application of heat. Granting this, and that visceral congestion is among the most important pathological conditions of yellow fever, how is it possible he can see no analogy between the experiments and this treatment of the disease?

Dr. Cowling says: "In yellow fever the blood is frequently thick and sluggish, having apparently lost its more fluid parts, and excessive sweating is not likely to replace it." May not this sluggish condition arise from an accumulation of eliminatory substances, as well as from loss of water? In cholera the condition of the blood is dense and viscid; and yet it is observed that the use of jaborandi, and the consequent excessive diaphoresis, is meeting with great success in treating this disease at Yokohama.

Dr. Cowling remarks that he is able to cite cases where excessive sweating was a factor in producing death in yellow fever. In these instances, it is possible that heat may not have been applied properly, or sufficient care may not have been observed in protecting the patient after the application.

If space allowed, reports might be adduced, where the external application of heat has proved highly advantageous in treating this disease in South America and elsewhere.

In the brief analyses just made it will be observed that with cold, shock, visceral congestion, and closure of the cutaneous pores, are first produced; but with heat no shock nor visceral congestion occur, and sweating is usually the primary result attained.

THE University of Edinburgh has presented the Cameron prize, established to encourage studies in therapeutics, to Mr. Paul Bert, for his discovery of the value of compressed protoxide of nitrogen as an anæsthetic of long duration.

ELECTRICITY A PARALYZING AGENT.

By THOS. W. POOLE, M.D., M.C.P. & S., Ont.,

AUTHOR OF "PHYSIOLOGICAL THERAPEUTICS."

Among the standard writers on medical electricity this agent is regarded as an "alterative," a "tonic," and a "stimulant;" while by some it is said to possess these qualities in combination. Experimental physiologists invariably regard it as an "excitant," or "irritant" to nerve-tissue, and interpret the effects produced in accordance with this view of its action. It may be thought very bold in us to call in question opinions so generally received; but as we are persuaded the view of the action of electricity we are about to present is well founded, and especially as we shall appeal to the recognized authorities themselves in support of our thesis, we ask for it a fair and candid hearing.

We assert that electricity is a paralyzer of nerve-tissue, and we claim that all the effects it produces, as employed for therapeutical and physiological purposes, may be readily accounted for on this view of its action. In proof of its paralyzing effects on nerve-tissue, we point, first, to Matteucci's experiment on the spinal cord of a living rabbit, in which it was shown that during the passage of a common galvanic current the cord might be pricked, cut, torn, burned, or otherwise injured, without eliciting from the animal any sign of pain. Dr. C. B. Radcliffe, F.R.S., quotes this experiment (with others) in his "Lectures on Epilepsy, Paralysis, and Pain," and there distinctly asserts "the paralyzing influence" of electricity: "Whether the current was passed up the spine or down the spine, the result was the same so far as *its paralyzing action* was concerned, and so it was in the other two experiments which have been mentioned" (p. 65). Dr. Radcliffe, however, asserts that the muscles, as well as the nerves, are paralyzed by the galvanic current, to which, as well as to some other of his conclusions, we take exception, for reasons which will hereafter appear. Drs. Beard and Rockwell, leading medical electricians of New York, also testify to the same effect in stating that "the cord remains insensible to any stimulus that may be applied to it, so long as the current is passing." (Med. and Surg. Elec., 2d ed., p. 127). Dr. Moritz Meyer refers to the observations of Valentine, Matteucci, and Eckhard in this connection, and to the effects of the constant current on nerve-tissue, and adds: "In other words, *the nerve is paralyzed* so long as any portion of it is subjected to the action of a continuous current" (Elec. in Prac. Med. (Hammond), p. 62).

The faradic current produces similar paralyzing effects, which differ from those of the galvanic current "mainly in degree." Thus the faradic current has been effectually employed to benumb local sensation in parts about to be subjected to minor surgical operations, and, as is well known, both currents are employed for the temporary relief of neuralgia and other painful states; for which result no better explanation can be offered than that the nerves of the affected part are for the time so paralyzed as to render them incapable of transmitting the sensation of pain. It may be said that this effect is properly anæsthesia rather than paralysis; but these are only different names for the same condition, and as Dr. Anstie has fully shown, anæsthetics are invariably paralyzers (Stim. and Narcot., pp. 273, 328, 398, etc.) Electricians frequently allude to "the benumbing effects" of electricity, including both the galvanic and faradic currents (Drs. Beard and Rockwell, loc cit., pp. 122, 123). When the functional activity of a nerve is not simply perverted, but arrested, it may with propriety be said to be paralyzed, and the agent producing this effect is certainly not entitled to be called a stimulant, or its action that of an "excitant," as has been so much the rule in regard to electricity.

It is important here to note, as negative evidence of the truth of our proposition, that Prof. Trowbridge, of Harvard College, U. S., has demonstrated that the supposed natural currents of electricity, believed by Matteucci and Du Bois-Reymond to be present in nerve and muscle in repose, do not exist; but that the perturbations of the index of the galvanometer witnessed by them really depended upon currents developed in the galvanic accessories of the experiment, and not in the nerves or muscles themselves;* so that, so far as known, electricity plays no part whatever in the inter-relations of nerve and muscle. Nor is electricity known to be generated at all in the bodies of men and animals, since even in the case of certain electric fishes, which display a remarkable use of this agent, the electricity which they discharge may be simply *induced* in them by the opposite electricity of the media surrounding them, as appears to be probably the case in certain men and women who give out sparks of electricity—a condition largely dependent on the electric state of the atmosphere, that of their surroundings, and their own peculiar electric relations to these. It is true that electricity is found *on the surface* of animal and other bodies, in the static form, in which, so far as is known, it is inoperative and exerts no influence on vital processes, as the negative result of "charging" the surface of the body with electricity on an insulated stool serves as an illustration. In view of the present state of knowledge on this subject, those who assert that natural electricity plays any part in the vital operations of the living organism will have to begin anew the task of eliciting evidence in support of that doctrine.

Turning now again to the subject of artificial electricity, the question at once arises, If this agent be a paralyzer of nerve-tissue, how does it "stimulate" the muscles to contract in the manner so commonly witnessed? The reply to this inquiry involves an issue which we have attempted to discuss at length, in a recently published work, entitled "Physiological Therapeutics," and at which we can only glance in the space available here.

We are convinced that the nerves do not "stimulate" the muscles to contract. We find all the physiologists asserting the inherent contractile power of muscular fibre, and even admitting the ability of muscle to exercise this power, in many instances, quite independently of nervous influence. Illustrations of this are to be found in the movements of microscopic portions of protoplasm; in the contractions of the fœtal heart before the development of nerves; in rhythmical and other movements of muscular parts after death of the body; in post-mortem parturition in pregnant females who had died undelivered at or near the end of the period of gestation; in parturition normally occurring in cases where the spinal cord had been destroyed by disease, or paralyzed previously, well authenticated cases of which are mentioned by Dr. W. B. Carpenter (Human Physiology, 5th Am. ed., pp. 979, 980); in the existence of rigor mortis, the facts of which have not been explained on any satisfactory basis (not excepting the latest hypothesis,

* Amer. Jour. of Science and Arts, May, 1872. Drs. Beard and Rockwell's Med. and Surg. Elec., 2d ed., pp. 108–111.

which refers it to coagulation of the myosin or muscle plasma), other than that of independent muscular contraction, which is the view of the late Dr. Anstie and of physiologists generally.

Dr. C. B. Radcliffe, in the work already quoted, asserts (in support of a different thesis) that "muscles do not pass into a state of contraction when they may be supposed to receive a larger supply of nervous influence than usual;" and, again, that "ordinary muscular contraction is associated with deprivation of nervous influence;" nay, more, "that *the power of muscular contraction is inversely related to the amount of nervous influence supplied to the muscles from the nervous centres*" (pp. 95-100). The experiments of Sir A. Cooper, Kussmaul and Tenner, and Dr. Brown-Séquard, are quoted in support of these propositions, which find additional confirmation in such facts as the cure of a much larger percentage of cases of tetanus by stimulants than by any other means (Dr. W. A. Hammond, Diseases of Nerv. Syst., 540). It is only on the view that in the excessive muscular contraction here witnessed nerve-force was in abeyance (and not in excess) that stimulants could be justifiable, or this result explained. Dr. Anstie was so impressed with the force of Dr. Radcliffe's argument that after referring to it he writes: "The true action of vital force would appear to be rather that of restraining muscular contraction than of exciting it" (Stim. and Narcot., p. 70).

Although Dr. Anstie does not appear to have further supported the opinion just quoted, it is certainly the view of the relations of nerve to muscle most consistent with the facts. It would really appear that whatever cause paralyzes nerve-force sets the muscle free to assert its inherent contractile power, and it does this with clonic or tonic results in proportion to its freedom.

Electricity paralyzes the motor nerves, and so permits muscular contraction. This principle, like a master-key, unlocks the fastnesses and clears up the obscure and hitherto unexplained problems in electrical treatment. It accounts for the benefit this agent sometimes affords to muscles suffering from enforced disuse, by the exercise it gives them, thus attracting blood, and with this pabulum, whereby their nutrition is improved. It accounts for the failure of electricity in chorea (Dr. J. Russell Reynolds, Clin. Uses, etc., p. 83) and in spasmodic states generally. Why this failure? Because the preponderance of muscular action here is owing to the too feeble restraint already exercised by weak or exhausted nerves, and an additional paralyzing agent is the least likely means to benefit them. It explains why electricity is powerless for good whenever, as in early and late rigidity, it fails to induce muscular contraction; because the muscle is already isolated from the nervous centre; the nerve is paralyzed and electricity can paralyze it no further; the muscle is already freed from nervous restraint, and as electricity can free it no further it fails to cause it to contract, and its use can do no good, but may do much harm. It also serves to explain why it is, "if you find, for instance, a limb perfectly paralyzed, but contracting perfectly well to galvanism, or sometimes acting even in excess, you can do nothing more by applying galvanism to that limb" (Dr. J. Russell Reynolds, Clin. Uses of Elec., p. 94). The benefits of electricity are for the muscle, in the manner already stated, but here the muscles are healthy and their condition cannot be improved. It is the nerve that is at fault, and electricity not being a tonic, or stimulant, or vitalizer to it, does not improve its condition, as it ought to do if it possessed the qualities attributed to it. Here is a problem: "Why the muscles that are paralyzed should act more readily than healthy muscles to a slowly interrupted current has not yet been explained" (ib., p. 98). The explanation is easy. A weaker current serves to paralyze the nerves of the diseased limb, and set the muscles free to contract, than will suffice for the healthy nerves of the sound limb. Why a slowly interrupted galvanic current is sometimes effective for this purpose, where the faradic current fails, we have discussed elsewhere in our "Physiological Therapeutics," where the more important objections to the theory here advocated have also been considered.

Numerous facts might be adduced to show that the relations here assigned to motor nerve and muscle, apply also to the vaso-motor nerves and muscular coats of the arterioles. But as this part of the subject is only indirectly associated with the topic of this paper, and as we have discussed it in a recent issue of the RECORD, under the title of "The Effect of Pithing on the Vascular System," we make no further reference to it here.

We have already shown, how, as a paralyzing agent, electricity indirectly benefits muscles whose functional power is impaired from atrophy or disuse,—by improving their nutrition. A wide field of usefulness is also open to this agent—on the same view of its action as a nerve-paralyzer—in the control it exercises over vascular activity in organs and tissues. By paralyzing the vaso-motor nerves (whose function we claim to be to *dilate* the arterioles) it brings into play the independent contractile power of the muscular tissue of the arterial coats, and thus produces a reduction in the calibre of these vessels, arresting congestion and diminishing blood-supply to morbid growths or hypertrophied tissues, with the gratifying results not unfrequently recorded. Thus the undoubted beneficial results of electricity in certain cases, as well as its failure in others, find a ready explanation in the theory we advocate.

The present physiological theory of the action of electricity in arresting the heart is of a most extraordinary character. Faradization of the sinus venosus of the heart of the frog, at its junction with the auricle, brings the heart to a standstill. In order to account for the arrest of the heart by a reputed "stimulus," it was necessary to assume that it is a hypothetical "inhibitory" ganglion, which is thus excited so as to overpower the motor ganglia of the heart, and cause it to stop, and at the same time that the proper motor ganglia of the heart escape the "excitation" of the faradic current altogether.

Now, the chief *motor* ganglion of the heart of the frog is said by physiologists to be situated in the sinus referred to, close to the auricle, at the very point to which they apply the faradic current to arrest the heart. Why the motor ganglion, to which the current is thus directly applied, should be regarded as uninfluenced, while another ganglion, a little farther off in the septum, should be "excited" (though less directly in the range of the current), so as to master its reputed rivals and stop the heart, is a problem which requires explanation. We claim that the application of a faradic current to the chief motor ganglion of the heart paralyzes it directly, and so stops the heart; and further, in a paper in recent issues of the Canada *Lancet*, we have undertaken to show on physiological authority, that the so-called "inhibitory," "accelerator," and "depressor" nerves of the heart do not discharge the functions these names imply; that they do not directly influence the heart at all, and, so far as they influence it indirectly,

they do so through "the peripheral circulation" in the manner of ordinary vaso-motor nerves.

We desire to refer briefly to the serious consequences which may, and have, resulted in practice from the mistaken idea that electricity is a tonic or stimulant. We refer especially to its use as a supposed restorative in cases of suspended animation, as in apparent drowning, or in threatened death from chloroform. The cases on record where apparent benefit has resulted from electricity in these states, are so few, so associated with other remedial processes, and generally so unsatisfactory, as to furnish no trustworthy evidence in its favor, while that to the contrary is direct and convincing. It has notably failed in experiments where these states were artificially produced to test its powers, in the hands of such experienced electricians as Drs. Beard and Rockwell (Med. and Surg. Elec., 2d ed., pp. 665-6). It has extinguished the spark of life in cases of threatened death, which were happily recovering under other means; and many more such catastrophes would be on record, if duly reported, and if it were not that batteries are frequently not available on such occasions—or when so, are often out of order, and fail to act.

Dr. Ringer, in writing of the use of electricity in these cases, states that "some authorities are wholly opposed to its use, on the score of its influence to arrest a very feebly beating heart, and so diminishing any slight remaining chances of recovery" (Therapeutics, p. 292). Dr. B. W. Richardson, of London, England, writing of resuscitation from the narcotism of chloroform artificially induced, states: "I feel it too unreasonable to recommend galvanic action as a means of resuscitation. Galvanism is a two-edged sword. It might by accident, I may say, in some cases, restart respiration, but it would in this respect be inferior in principle to artificial respiration, and in the majority of cases *it would more effectually promote death than restore life*. . . . When used as it is commonly used, merely to excite prolonged contraction of muscles, it is not aimless merely, but positively mischievous." Having narcotized a rabbit with chloroform till respiration and other evidences of life had ceased, and restored it by artificial respiration, he narcotized another to a similar degree, to show the effects of electricity. Commenting on the fatal result, he states: "When I used the electric stimulus [observe the word employed in this connection], I took out of the muscles what remaining force was there—the primary force required for recovery—and under the semblance of restoring life, *clenched death!*" (*Medical Times and Gazette*, 1870. Braith. Retros., January, 1871, p. 256.)

How well this tallies with the action of electricity as a paralyzer, and how very inconsistent it is with its action as a reputed stimulus! Yet such is the force of habit, custom, or blind adherence to authority, that men call that a stimulus while in the very act of recording its paralyzing effects. Nor is Dr. Richardson happy in his allusion to taking the force out of the muscles. The muscle is not paralyzed by electricity. It will soon pass into rigor mortis, in which it will display "the most steady and persistent contraction which muscle can possibly exhibit," to use the words of Dr. Anstie, a condition which electricity simply hastens. If Dr. R. had stated that by means of the electric current he had intensified the already existing paralysis of the nerves (produced by the chloroform), and thus prevented all chance of recovery, his statement would have been more in accord with his facts, and with the ideas he evidently intended to convey. Let us be courageous, and call a spade a spade. "A rose by any other name would smell as sweet," but it is highly dangerous to label certain paralyzers roses—or stimuli—and proceed to employ them accordingly.

This fatal error has warped the whole course of physiological research, and given rise to the most absurd and contradictory statements in therapeutics. As an example, we are told by Preyer that "belladonna paralyzes the peripheral branches of the vagus and at the same time stimulates the nervous centres of respiration."

The fundamental error regarding electricity is responsible for this statement of contrarieties. Here is the process by which such a conclusion is reached. Electricity is said to be a stimulus. But it stops the heart. Then it must be assumed to excite (not the heart's motor ganglia, which would urge it faster, but) a nervous rival antagonistic to the motor ganglia. Hence the assumption of the "inhibitory" mechanism, which, so to say, is supposed to apply the brakes to the heart's *motor* ganglia. It follows from this, that to urge the heart to increased action we must stimulate its motor ganglia; to arrest it, we excite the inhibitory nerves. The action of drugs is interpreted according as they seem to act in one or other of these ways. Belladonna quickens the heart's action (under certain conditions). Hence it is said to paralyze the inhibitory ganglia (Dr. Ott) and also to paralyze "the peripheral branches of the vagus," which are understood to be connected with the inhibitory centre in the heart. By another chain of reasoning it is concluded that it excites the vagus at its origin.

It is pertinent here to inquire how the heart's motor ganglia escape the effects of the drug which is assumed to paralyze their rival? They are in proximity, in the same organ, fed by the same blood-stream, and yet one is held to be uninfluenced while the other is paralyzed. Again, Dr. Carpenter states that the membranous sheath of nerve-fibres "is not penetrated by blood-vessels." How then can the "branches" of a nerve-trunk be influenced by poisoned or medicated blood, except by impressions made on the nerve-centre and transmitted along the trunk? And if this be true physiology, how can a nerve centre and its trunk, or "branches," be in opposite conditions of excitation or paralysis? Is it not preferable to believe with Dr. Anstie that the action of narcotics "is an uniform one, and tends entirely in the direction of nervous death?"

A recent physiological author writes of belladonna: "It paralyzes the motor nerves of frogs, at the same time that it excites the spinal cord; after they recover from the motor paralysis, the tetanic symptoms of spinal stimulation appear" (Dr. Ott, Action of Drugs, p. 138). Is it by such teachings as this that we can ever learn the true action of drugs? Surely the hypothetical "Philadelphia lawyer," who is reputed able to solve all difficulties, has been at work here, preparing "a case" for the veritable Philadelphia doctor! But seriously, the inferences drawn from electrical experimentation, as to the functions of organs, when applied to the observed effects of drugs on these functions, have led even eminent writers into many such absurdities.

Electrical experimentation has borne a very prominent part in formulating the current views of the functions of certain parts of the organism, and has assisted in building up a very complex theory both of these functional activities and of the action of drugs in relation to them. A recognition of the true action of electricity as a paralyzer, instead of as a stimulus to nerve-tissue, would, we believe, be a great gain to both physiology and therapeutics.

LINDSAY, ONT., CANADA, Oct. 8, 1879.

Reports of Hospitals.

METROPOLITAN THROAT HOSPITAL.

SERVICE OF DR. CLINTON WAGNER.

CASES OF INTRA-LARYNGEAL GROWTHS—OPERATIONS AND RESULTS.

(Reported by H. H. HOWLAND, M.D.)

CASE I.—Geo. S——, aged six years, a frail, delicate child, extremely emaciated, was brought by his parents to the Metropolitan Throat Hospital, on February 2, 1879, for hoarseness, difficult breathing, and frequent attacks of spasm of the glottis, especially at night. His father stated that he had had several attacks of croup. The hoarseness and difficult breathing appeared shortly after last attack, nearly eighteen months ago. A laryngoscopic examination revealed a large papillomatous growth covering a greater portion of both cords anteriorly. Abauction of the cords was prevented by a web of false membrane, evidently the result of the attacks of croup, which left an opening posteriorly for the passage of air, scarcely larger than a pigeon quill. The extreme dyspnœa, with tendency to spasm of the glottis, the large size of the papilloma, and the presence of the false membrane, rendered an operation by the mouth impossible, and even the attempt Dr. Wagner considered imprudent and unadvisable. He was kept under observation a few days, during which time the dyspnœa increased, and the spasms of the glottis became more severe and more frequent. On February 9th, tracheotomy and thyrotomy were performed. The incision was carried down through the crico-thyroid membrane, but the cricoid was not divided. The growth and false membrane were thoroughly removed. A microscopic examination of the specimens by Dr. W. T. Alexander showed that the growth was a true papilloma, and the membrane of a false or adventitious character. Considerable irritative fever followed the operation, temperature at one time reaching 105° F., but under the careful administration of stimulants and nourishing diet he recovered. The tube was removed March 16th, and on March 30th, the external wounds having closed and healed, he was discharged cured. On April 26th he returned for examination, breathing excellent, voice improving, and had gained upwards of twenty pounds. He was again seen the latter part of August, and condition excellent.

CASE II.—Mrs. R——, aged 24; native of Germany; occupation washing. Consulted Dr. Clinton Wagner at the Metropolitan Throat Hospital, July 6, 1878, for hoarseness. She had been hoarse for over a year, and when examined was almost completely aphonic. A laryngoscopic examination showed vocal cords relaxed, and small outgrowths at junction of anterior and middle third, preventing perfect approximation of cords. In these cases instrumental interference cannot be resorted to on account of the small size of the growths, and of their thorough incorporation with the tissues of the cords; but good results will frequently follow by the persistent application of the following formula of iodine: Iodine, gr. iij.; potassii iodidi, gr. vi.; glyc., ʒ i., or zinci chloridi, gr. xv. to water, ʒ i. In this case the above formula of iodine was used twice a week, and in March, 1879, the nodules had entirely disappeared and voice perfect.

CASE III.—Mrs. S——, aged 32, native of America; occupation, sewing. Consulted Dr. Clinton Wagner at the Metropolitan Throat Hospital, October 22, 1878, for hoarseness. Had been hoarse for over five years. A laryngoscopic examination showed a small papillomatous growth on superior surface of left vocal cord, overlapping free edge and near the anterior commissure. On November 11, 1878, Dr. Wagner removed the growth with Mackenzie's forceps. On March 10, 1879, patient revisited hospital. On examination, vocal cords normal and voice perfect.

CASE IV.—Jennie M——, occupation singer, who had a large papilloma on each cord, and which were removed by Dr. Wagner, April 3, 1878, and reported by him in a paper on Intra-Laryngeal Growths (*Medical and Surgical Reporter*, Columbus, Ohio), Case V. Revisited the Hospital May 8, 1879, thirteen months after operation. On examination, not the slightest trace of growth visible, and a good singing voice.

Progress of Medical Science.

VOMITING OF PREGNANCY.—Fresh evidence of the value of Copeman's method of treating obstinate vomiting in pregnancy is proffered by Dr. Baldwin, of Columbus, Ohio. All the usual remedies had been tried in vain in a case under his care; even nitrate of silver to the os, which seemed to be specially indicated by the existence of erosions, had proved useless. The cervix was then freely dilated with the index finger, with immediate and most gratifying results. The vomiting, which for two weeks had been almost continuous, ceased as by magic, and in a few days the patient was about the house doing her work. The improvement was permanent, no relapse occurring.—*The Ohio Medical Recorder*, August, 1879.

CARBOLIC ACID IN MALARIAL DISEASE. A strong plea for the value of carbolic acid in malarial disease is published from the pen of Dr. A. G. Tebault. He says: "As a prophylactic, carbolic acid given in grain doses, at intervals of three to six hours, has, in my hands, yielded comparatively far happier results, even in cases where unmistakable prodromata of malarial fever were actually present. In experiments instituted during the past seven years on my own person and others, feelings of lassitude, malaise, cutaneous torpors, disturbed sleep, furred tongue, nauseous taste, and anorexia, often gave way under this treatment within twenty-four hours; and a pulse hitherto jerking and irritable became calm and of the natural rhythm, while a soothing, pleasant sensation pervaded the system. No fever manifested itself in any of the cases; on the contrary, the person felt refreshed and buoyant. No other agent which I have ever employed has superseded carbolic acid as an apparent disinfector of the malarious taint within the system; and this, after anxious thought on the subject for years, is to my mind the first glimmer of light that may lead to the discovery of means to act directly on the poison of fever."—*London Med. Record*, Aug. 15, 1879; *Dublin Journ. Med. Science*, September, 1879.

FARADIZATION IN THE TREATMENT OF PURPURA HEMORRHAGICA.—Mr. Shand, of Glasgow, reports a case of purpura hemorrhagica in which the use of electricity was productive of most pleasing results. Mineral and vegetable astringents, ergot, tonics, were tried, but the patient continued to sink rapidly. On the fifth day of treatment bleeding was taking place from vagina and bowels; she looked bloodless, collapsed, and apparently dying. She refused all medi-

cines. Electricity was thought of and applied; the interrupted current was used, running the sponges over the whole surface of the body. This was repeated every two hours, and at midnight no more motions had taken place, but griping had set in. A piece of soap was now injected, and soon relieved her by producing two evacuations; the first consisted of blood, but the second was almost natural. The next day she was much improved, and the bleeding had almost entirely ceased. Tonics and astringents were again prescribed, and a speedy recovery followed. The electricity is supposed to act by exalting the tone of the nervous system, by facilitating coagulation, by toning the exhausted capillaries, and by encouraging the capillary circulation through acting as a general stimulant. Mr. Shand is in the habit of using a strong battery, with few interruptions, employing the upward and downward current indiscriminately, and does not pay much heed to Ziemssen's points of application.—*The Lancet*, July 19, 1879.

Thermometry of the Viscera.—At a recent meeting of the Berlin Physiological Society, Dr. H. Kronecker showed a number of globular maximum thermometers, and also some new cylinder-shaped instruments intended for introduction into the blood-current of living animals. Dogs could be made to swallow the globular thermometers without any trouble, while the cylindrical thermometers could be introduced into the femoral or internal jugular vein, or into the carotid artery without producing any disturbance. Those placed in the veins generally found their way into the peripheral branches of the pulmonary artery; occasionally, however, they were found in the azygos, the renal vein, etc., or remained in the right auricle—in a few cases in the right ventricle. Those placed in the central end of the carotid, and urged toward the aorta by injected blood, were driven to the remote arterial branches. Clots were occasionally found in the cardiac cavities from the presence of the thermometers, but not elsewhere. By means of these thermometers, the amount of heat developed during digestion, some notion of the temperature in different portions of the circulation, and the locality of the highest bodily heat were ascertained. The lowest blood-temperature of the inner portions of the body was found to be in the vena azygos (99.9° F.), the highest in the middle lobe of the right lung (105.9° F.) and in the empty intestinal canal (106° F.).—*Philadelphia Medical Times*, Aug. 30, 1879.

A New Operation for Entropion and Trichiasis.—Dr. Hotz, of Chicago, proposes for the relief of these affections a new operation, which from an experience of forty-six cases he believes to be far superior to any of the operations at present in use. The operation is based on his belief that incurvation of the tarsus does not play any important part in the development of the majority of the cases of entropion; that the edge of the tarsus does not generally change its relative position to the eyeball; and that the so-called rolling in of the lid is nothing more than an inversion of the external integument, which has been rolled down and in by spasmodic action of the orbicularis muscle. He was long ago struck by the fact that even in the worst cases of entropion, slight traction on the skin of the lid by means of a probe laid on the upper border of the tarsus, is sufficient to evert the inverted edge, and he has utilized this experience in his operation, which is carried out as follows: An assistant fixing the skin of the eyebrow against the supra-orbital margin, the free edge of the lid is seized with forceps about its middle and drawn downward until the upper border of the tarsal cartilage is horizontal; an incision is then made along this border from a point 2 mm. above the inner to one 2 mm. above the outer canthus, and the orbicularis muscle is carefully divided, and its connections severed from the upper third of the cartilage. The lower flap of skin with the muscle attached is next everted, and a strip of muscle about 3 mm. in width is dissected off from canthus to canthus. This strip must be cleanly dissected off, and, at the same time, any shreds of muscle left adhering to the upper third of the tarsus should be removed. Four sutures are then applied; they are introduced 2 mm. from the border of the lower flap, carried through the aponeurosis in the upper third of the tarsus upward, to a little above the junction with the fascia tarso-orbitalis, and then out through the upper flap, care being taken that no muscular fibres are included within the loops. The sutures must be drawn tightly, so as to keep the skin in close contact with the cartilage. After the operation, cold-water dressing is applied for twenty-four hours, and then all dressing is left off, the eye being merely bathed frequently with tepid water to prevent the formation of crusts. The sutures should be removed on the third, or, if necessary, on the second day. The wound usually heals by first intention.

Dr. Hotz states that the immediate effects of the operation in all of the forty-six cases operated on, were complete removal of the entropion and great improvement in the appearance of the lids, and that these effects became more obvious with the lapse of time. The first case on which it was tried was one in which a previous operation by Arlt's method had failed to relieve the entropion, although it had shortened the lid so much that the patient was unable to close the eye. The effect was most satisfactory, and Dr. Hotz claims that it is precisely in these desperate cases that the operation achieves its most brilliant triumphs. As a result of the firm union obtained between the skin and the cartilage, both move as one piece; the movements of the lid are entirely free, and the eyelashes are as much everted when the eye is open as when it is closed. Even should contraction of the conjunctiva subsequently occur, and cause the edge of the cartilage to curve in, Dr. Hotz believes that the increased tension of the skin thereby produced would counteract any effect the incurvation could have on the direction of the eyelashes. The operation may, if necessary, be combined with additional measures, such as grooving of the cartilage, canthotomy, or incision along the free edge of the lid, and any redundant skin can, if desired, be removed at a later period. As a rule, it is better to operate on only one lid at a time for fear of too violent a reaction.—*Archives of Ophthalmology*, July, 1879.

Amputation of the Breast.—Dr. B. W. Richardson's particular fondness, says a correspondent of the *Louisville Medical News*, is removing diseased breasts, and he has a large practice in this line. He does the operation with serrated scissors, having frozen the parts with ether spray. He uses no water on the wound, wires it together, covers it with styptic colloid, bandages the arm down, to insure rest, puts his patient on her feet, never to bed, lets her ride and walk as much as she chooses, and eat what she pleases. In eight or ten days he removes the dressing, and generally finds the wound healed, and his success is almost invariable. Dr. R. holds the germ theory to be all nonsense, and carbolic acid he considers a bad-smelling sham.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 1, 1879.

THE ETHICS OF CONSULTATIONS.

The danger of interference between physicians, while rendering professional services, is so great that the most stringent rules are laid down to prevent it. But that these are none too strict, every medical man who is brought much in contact with his professional brethren can attest. Particularly is this the fact with regard to the relations toward each other which should be maintained in consultations. Either the ethics of the profession are not sufficiently explicit upon this subject, or the greater number wilfully violate its provisions, for certain it is that there is need in many quarters for a rigid enforcement of discipline. Consultations are held at the instance of the patient or his friends, or at the suggestion of the regular medical attendant, or both. In either event the position of the consulting physician or surgeon is obviously a delicate one. Whether or not he is really better informed than the gentleman in charge of the case, the very fact of his being called at all removes, generally speaking, all doubts, at least in the mind of the patient, of his eminent fitness to give counsel and aid. The more critical the case, the more eagerly do the friends of the patient coax themselves into the belief of his superior qualifications. The attending physician, even if he knows that such a belief is without foundation, so far tacitly agrees with the convictions of the patient that he does not, as a matter of courtesy, strive to overthrow them. The consulting gentleman is thus admitted to the case with a hearty endorsement of all who are most concerned in the proper management of the case, and may, if he is not exceedingly careful in what he says or does, damage very much the estimation in which the family physician is deservedly held. The real purpose of extra advice in difficult cases is to aid the sufferer directly and the attending physician indirectly, the party consulted being only instrumental to that end. If this fact were thoroughly understood and appreciated, a great deal of misunderstanding, and much bad feeling among different members of the profession would be prevented.

It is a matter for congratulation that the number of those who wilfully violate the trusts imposed upon them is small; but, on the other hand, the unintentional sinners are very numerous. Of the former, then, we need not speak; they are past reformation, and should be left to the full fruition of their dishonest, unmanly, and wicked practices. But to the latter class there is much to be said that may be productive of good.

One of the main causes of evil-doing on the part of this special class is a want of caution in their actions before the patient, based upon a false appreciation of their rights. They seem to forget that the absolute rights of a consulting party are far from being many. In fact, they are so few that it seems strange that they should not be known. As before remarked, the real office of the consulting medical man may be summed up under two heads: 1st, advice to the attendant calculated for the greatest good to the patient directly, and the cause of science indirectly; and 2d, a policy which shall tend to strengthen the confidence of the said patient or his friends in his medical adviser. Beyond this, under ordinary circumstances, he cannot go without endangering the good standing of the other practitioner. In order to fulfil his obligation properly, the only necessary communication with the patient should be during the consultation, and always in the presence of the regular adviser. This is the general rule, to which there is perhaps but one exception—and that is, when the party calling the consultation fails from one cause or another to meet his engagement. Then, after waiting a reasonable time, the consulting gentleman can examine the patient alone; but he should, under all such circumstances, give his opinion in writing only, and under seal. Those gentlemen who do the largest consultation business in our cities make it a rule, that is almost absolute, never to communicate directly with the patients or friends at the conclusion of the consultation, except it be necessary to endorse the physician in attendance. There is really no necessity for doing anything further. Every explanation that it is requisite to make is left to the regular adviser, and if the patients have the confidence in him which they should, they cannot doubt but that he will candidly state to them any new facts of importance which the consultation may have developed. On the other hand, if a consulting party thoughtlessly places himself in a position to be plied with questions, he is very sure, contrary to his best intentions, on some point of trivial importance, to be diametrically opposed to the party with whom he has been consulting. Any one must be more than ordinarily acute, who, giving positive answers to such interrogatories, will not differ

with another on some point. This being the case, it is obvious that the attendant is the most proper person to reconcile the trivial differences of opinion. Some consultants, in the absence of any agreement with the physician or patient to the contrary, are quite unwilling to understand that their services should cease with the first visit. We have known of some gentlemen who have so far forgotten common courtesy to the attendant, that they have not only continued to attend upon the case, but virtually taken such charge of it as to suggest on their own account the proper times of meeting. Such a course is not allowable, even if the patient's friends make a request to that effect, unless the physician fully agrees to the measure. If he cannot so agree he seriously compromises his self-respect by remaining in attendance any longer. But there are cases in which such a necessity may clearly exist, and which every right-minded person will not fail to appreciate; they are, in a word, such as require special surgical treatment, in the shape of operation, etc. The consulting surgeon, under such circumstances, becomes principal, inasmuch as he gives an entirely new direction to the case, and is responsible for the immediate effects of any particular operation. He is supposed to know best when the patient should be seen, and it is properly his duty and privilege to make his suggestions accordingly. But, when all the immediate danger is past, it is equally his duty to retire at once.

Again, there is sometimes a very free interpretation of the clause in the code of ethics regarding attendance upon such patients as have been previously under the care of another practitioner. Generally speaking, it is sufficient for the patient to state that he has concluded to change his physician, to make it warrantable for another medical man to give his services. This is a rule which has long ago been sanctioned by custom, and cannot be altered. The patient has a right to change his physician if he so pleases, and, having notified him to that effect (after having, of course, paid the bill), is under no more obligations to him. Any physician who would refuse to accept such a case would manifest a species of transcendental fastidiousness that could hardly be appreciated by the most upright member of the Medico-Historical Society. It is another thing, however, when a gentleman is called after having, during the same illness, attended the case in consultation. Under such circumstances he is bound, in honor, invariably to decline having any further thing to do with the case. As it is to be presumed that through the practitioner he became known to the family—that the same practitioner, perhaps, gave him his reputation—he must not in any manner supplant him. If the latter did not actually occur sometimes, it would appear almost like an insult to honorable men to refer to it as a possibility.

In regard to consultations with specialists, the same rules hold good. There does not generally seem to be any necessity for wrong-doing on the side of the specialist, as such cases as require treatment at his hands are readily and generously delivered up to him. Viewing the subject then as a whole, there would seem to be no reasonable excuse for misunderstanding as to what is just in the premises. The code of ethics is very explicit in its interpretation of the rights of each, and if that is not at hand, every one can easily and safely apply the Golden Rule in its stead.

If always actuated by its teachings, there would never be room for misunderstandings in our professional intercourse. In view of the great importance of frequent consultations, this is an end for which we should hopefully and patiently pray.

LARDACEOUS DEGENERATION.

THE recent debates on this subject, at the London Pathological Society, have deservedly excited very considerable interest. There are not a great many questions in general pathology which appeal strongly to those not specially engaged in this work. Lardaceous degeneration, however, is so important and as yet incompletely understood a lesion, that a prospect of further light upon it may naturally excite a good deal of curiosity. It is, of all the degenerations, the most severe in its reaction upon the general system, and is second only to fatty degeneration in extent and frequency.

It cannot be claimed that the debates referred to satisfied more than the most moderate expectation, for there was only one important and definite outcome of the two nights' discussion. Much was done, however, to show the importance of the subject and the points that especially need further study.

Since the early idea that amyloid material was really an amyloid, that is, a hydrocarbon, was disproved by the analyses of Kekulé and C. Schmidt, the effort has been made to discover which of the albuminoid substances it resembled most. By finding this, its origin, it was thought, might perhaps be traced. Some progress has certainly been made in this direction, although one very essential point in the study does not seem to have been as yet accomplished. We refer to the complete and perfect isolation of the material itself. The characteristics of the substance are its peculiar reaction with iodine, its deficiency in potash salts, its insolubility in the gastric juice and in water, and its tendency to attack the blood-vessels. Now there are a number of albuminates which have more or less of these characters. Thus even the reaction with iodine occurs with acidified albumen and casein. In nearly every respect, however, it resembles most closely de-alkalinized fibrin. And this conclusion, now pretty well established, confirms a previous very plausible but not well-established hypothesis. For the fact that the degeneration, or infiltration, as some prefer to call it, first attacks the capillaries and arterioles, had led naturally to the be-

lief that the blood was the source of the morbid action; but the uniform failure to discover any traces of the amyloid substance in this fluid, as well as the peculiar manner in which it singled out only special organs for its attack, caused doubts about such an origin. These may now be quite confidently set aside. And on the whole, the most rational conclusion in regard to the nature of the amyloid material is, that it comes from the blood, and represents a defect in the nutritive changes in that fluid. It is a case, in fact, of incomplete or perverted metamorphosis. It may be asserted of this theory that it is not only a rational, but a fashionable one. The idea of asserts or perversions in the metamorphic process is now affording a happy explanation of a good many pathological phenomena.

With regard to less abstruse points in the subject debated, we find that a very positive as well as practical conclusion was reached in connection with the etiology of the disease. Dr. Dickinson, decidedly the best authority on the matter, claimed that the cause could be traced in every, or nearly every case, to syphilis or suppuration. This throws out a long list of occasional causes heretofore given, such as cancer, malarial poisoning, alcoholism, etc. Dr. Dickinson's assertion was well sustained, and pretty generally agreed to. If firmly established, it is a most important advance in our knowledge of the disease.

Although waxy degeneration may be cured in its earlier stages, it has always been thought entirely intractable when well advanced. It induces an atrophy and fatty degeneration of the tissues about it. When seated in the kidney, it is, in this country at least, always accompanied with a diffuse nephritis. Nevertheless, cases were related to the Society which serve to prove that even in the worst stages there may be retrogression and cure of the disease; and this not only in syphilitic, but suppurative cases. In one patient a liver, which reached nearly to the crest of the ilium, was reduced to its normal size; in another, a child in apparently the last stages of chronic albuminuria was restored to comparative health. No especially new remedies were used to secure these results. On theoretical grounds, liquor potassæ is recommended, but it is not efficacious unless combined with tonics and cod-liver oil, and there is room for the belief that the tonics and oil are the chief agents. Indeed, pathological investigations have not as yet much advanced the therapeutics of the disease.

PHYSICIANS' VACATIONS.—Much has recently been said about the necessity of vacations for physicians, but Dr. and Mrs. Ducat, of Highbury, England, have taken one. After putting themselves in training by a series of preliminary walks, they travelled on foot through Switzerland and along the Rhine for three weeks. They saw, it would appear, almost everything, and all for forty pounds. Their example is commended to the rest of the profession.

Reviews and Notices of Books.

MANUAL OF THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY. By STEPHEN SMITH, A.M., M.D., Surgeon to Bellevue and St. Vincent Hospitals. New York: Houghton, Osgood & Co. 1879.

THIS is a rather closely printed, profusely illustrated royal duodecimo volume of 698 pages. It covers so large a field that the limits of our space forbid criticism in detail, and we shall therefore confine our notice to an examination of the general plan, in order to show the scope and character of the work, and to a minuter criticism of one or two subjects to show the manner in which the work has been done.

The central idea, as indicated in the preface, rests upon the legal obligations of a surgeon, and "it has therefore been a constant effort to give to the text the highest degree of authority, by embodying the teachings of recognized authorities on every subject, *so far as they conform to what is believed to be the present standard of surgical opinion and practice.*" (Italics our own.) If by this it is meant that the book is to be considered a medico-legal authority, and that compliance with its teachings, like the possession of a diploma in some countries, will throw the burden of proof upon the plaintiff in a malpractice suit, we cannot but think the design as illusory as the execution is defective. The error in the design is contained in the lines we have italicized, for only such teachings are accepted as coincide with the author's views, and only those teachers are considered as authorities whose utterances receive similar approval. The work, therefore, does not differ in this respect from any other similar treatise: it derives its authority solely from its author; and his indorsement, valuable as it is, is not sufficient to give any opinion the character of a final judicial decision.

The defects of execution are manifested in several ways, and while the allegation in some of them depends merely upon a difference in opinion between Dr. Smith and the reviewer, it will in others, we think, be accepted as correct by all. The citation of authorities is confined to the simple mention of the name of the individual without a single reference to the page, or even the book in which the opinion is to be found; the only guides even to the legal opinions and decisions are the names of the judges or of the parties to the suits. For legal purposes, therefore, they are almost valueless, because they offer no means of verification, and for practical purposes they are so incomplete that the practitioner must in many cases be unwilling to be guided by them, for he knows neither the considerations upon which they were based, the modifications they are subject to, nor even the date at which they were held. Moreover, some of them are evidently taken at second hand. These references are a prominent feature of the work; a count of those in the first fifty pages shows an average of more than three to a page, or over two thousand for the entire book. In spite of their number, we miss some that we might reasonably expect to see among them, and we find others that are simply trivial. For example: under amputations no reference is made to Cardin; in fact, no mention is made even of the long anterior flap, although that method is in daily use, and is sanctioned by such authorities as Lister, Holmes, and Erichsen; under amputation at the hip-joint no reference is made to Verneuil, although he is the inventor of a method that has proved successful, and

is the author of a recent and valuable paper upon the subject; under amputation at the knee, the only reference is to a maker of artificial limbs, an omission which, taken in connection with the fact that the only method described for amputating at this region is one introduced by Dr. Smith himself, throws a singular light upon his estimate of what is "the present standard of surgical opinion and practice." The general rules introducing the subject of excision of joints are fortified by only two references: one of them to Prof. Bigelow in support of the assertion that it is well to "preserve a useful hinge-joint at the elbow," the other to Hüter in support of a similar statement concerning the knee—the triteness of the one being equalled only by the impracticability of the other. No mention is here made of either von Langenbeck or Ollier, and yet one of the three divisions of the subject, that concerning the time at which excision should be performed, contains a recommendation of immediate excision, which is in direct opposition to the teaching of both these recognized authorities. Finally, in justification of our assertion that some of the references—we do not mean the statements—are simply trivial, we may refer to the one to Prof. Bigelow, just quoted, and to the following, taken almost at random from pages 15, 17, 50, and 325: "Foul air, filthy dressings, indigestible food, will thwart the best planned and executed operation." —*S. D. Gross.* "Excessive bleeding, due to defective measures for its prevention, is culpable negligence."—*F. Esmarch.* "Thermometry . . . . is an important mechanical aid in diagnosis."—*A. L. Loomis.* "The best general rule for its application (that of a roller bandage) is as follows: It should be done quickly, without pain, with ease, and with elegance."—*Hippocrates.*

The scope of the book is far wider than one would expect, and the diversity of the subjects treated in it, and the manner of treating them, bring it into the class of surgical text-books, rather than into that of operative surgeries. Thus, to take the first two extreme examples that present themselves, we have, on pages 497 and 498, rupture of the kidney, the treatment to be rest, opium, and quinine; and on pages 283 and 284, inflammation within the cranium, with a full account of its pathology and symptoms, and no recommendation of operative interference beyond blistering and venesection. It seems to us that this fulness is only justifiable when the space for it is not obtained by slighting other parts, for the book is offered as a manual of operative surgery, and foreign matter should not be brought in to the exclusion or insufficient consideration of topics which are properly included in that title. The composition of the work is compact, and the type is not large, but it contains only 700 medium-sized pages in which space is further taken for 733 illustrations and 2,000 references in foot-notes. Nearly 50 of the first 80 pages are given to the following six subjects: The Obligation, Examination, Preparation, Emergencies, Repair, Cicatrization. These are followed by 30 pages on fractures, and it is not until the 111th page that the real subject-matter of the book is reached in general operations on the bones. At the 147th page a new digression begins, and 20 pages are given to dislocations and the diseases of joints. One-fourth of the book has been gone over, and the only operations described have been those for the resection of the different bones. In the remaining portion of the book the longest absences from the track that we have noted are 9 pages on injuries to the muscular system, and 11 pages on compensative appliances (artificial limbs, etc.); but shorter lapses are frequent, and we think we are speaking within bounds in saying that more than one-third of the book is given up to subjects that do not strictly or properly belong in it, and the treatment of which is necessarily so scanty and superficial in most cases that the reader will be compelled to refer to other treatises for the needed information. This is only equivalent to saying that the book is not a satisfactory text-book upon general surgery; and although it may be claimed that it is not a general surgery in title, it certainly aims to be one in subject-matter.

Let us now see if the condition which we mentioned as offering, in our judgment, the only justification for this introduction of extraneous matter, is complied with. The number of pages allotted to each subject offers a ready, if somewhat rough, means of indicating the consideration each has received, and incidentally supports the assertion, made apparently with pride in the preface, that no "stereotyped" (that is, systematic) method has been followed. The following subjects have each been given one page: corns, boils, carbuncles, amputation of arm, forearm, thigh, at the elbow, and at the knee; hypodermic injection, 1½; fistula in ano, thermometry, rhinoplasty, and amputation of the leg, 2 each; amputation at the hip, 2½; the nails, 3; harelip, 3; acquired defects of the lips, 6; cæcum, 4; colon, 5 (without mention of inguinal colotomy); the rectum (exclusive of hemorrhoids and anus), 11; lungs, 6; larynx and nasal fossæ, each, 12; ligation of arteries, 36; operations on the bones, 36, and on the joints, 24; and, finally, the principles of amputation and of excision of joints are disposed of in 6⅓ pages and half a page respectively. The last-named subject is treated under three heads—the indications, the time at which excision should be performed, and the method of operation. The only indications mentioned are gunshot wounds, compound dislocations, and progressive caries, to the exclusion of unreduced dislocations and anchylosis, although under anchylosis of the elbow, on page 642, he recommends excision, adding: "The steps of the operation are the same as for caries, except that a triangular piece of bone must be removed at the seat of the old articulation"—a statement which entirely ignores the radical differences in the method imposed by the immobility of the joint, and the recommendations of his own authorities as to the amount of bone that should be removed. Under the *method*, we have only a brief statement (12 lines), in general terms, of what the operator should aim to accomplish, but not a word as to the manner in which it is to be done—a treatment of the subject which might be proper in a general text-book, but which is inexcusable in an operative surgery.

To take another example: ligation of the common carotid is described clearly and with sufficient detail in 2¼ pages, while the more difficult and dangerous ligation of the external and internal carotids near their origin is described, with their anatomy, in less than half a page, and that of the external carotid above the digastric in 9 lines, of which 4 are given to its anatomy and 5 to the operation. In both cases the anatomy is descriptive rather than surgical, and lacks precision.

In the light of such descriptions and such treatment of the subjects, what are we to think of the statement in the preface that the lofty ideal there described had been constantly borne in mind, although manifestly unattainable?

To summarize our objections: Dr. Smith has at-

tempted to cover too much ground, and has therefore been compelled to treat most of his subjects incompletely. The numerous references are too indefinite to have much value; they abound where they are not needed, and are absent where most required. The treatment of the different subjects is uneven, many of them are treated exceedingly well, and the operative method given with sufficient detail, but in others the description is so brief that the practitioner would get little or no help from it. It seems as if the author had lost sight of the fact that he was writing for men whose knowledge and experience are less than his own, and had consequently omitted many directions which he would not need, but which they would find essential. The language is well chosen, and the composition simple and direct.

CLINICAL MEDICINE: A Systematic Treatise on the Diagnosis and Treatment of Diseases. Designed for the Use of Students and Practitioners of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Philadelphia: Henry C. Lea. 1879.

THIS book contains nearly 800 pages, and is the work of one of the oldest medical teachers and most accomplished medical writers in this country. Its author states that the plan of the work and the arrangement of diseases have been made with special reference to clinical medicine. In order to give the reader a fair idea regarding the scope of the volume, it must be stated that we find, first, an introduction in which are given modes of examining patients, methods of making clinical records and reports, and a general review of the subject of diagnosis as embracing general symptomatology, the use of the sphygmograph, the thermometer; also a study of the objects, ultimate and immediate, in treating cases of disease, and a chapter on the professional conduct of physicians toward their patients. Second, we notice that this book is divided into six sections. The first section is devoted to diseases of the respiratory system, and consists, first, of preliminary observations on symptomatology and physical signs, and, second, of remarks on the diagnosis and treatment of diseases of the respiratory system. The diseases which are considered in this section are: 1. The inflammatory diseases of the respiratory organs within the chest, including acute pleurisy, pneumonia, bronchitis and their varieties; 2. Chronic inflammatory diseases, including chronic pleurisy, empyema, and pleurisy with pneumothorax; 3. Structural diseases, including pulmonary emphysema and its varieties, pulmonary gangrene, carcinomatous and other tumors, etc.; 4. Functional diseases, such as hydrothorax, asthma, bronchial hemorrhage, etc.; and, 5. Diseases of the larynx. The author tells us that he has, "as far as practicable, arranged the diseases by grouping together those of which the diagnosis involves differentiation from each other." This fact explains the appearance, under the several headings in the sections, of diseases which properly belong elsewhere.

In this section we notice the author speaks of empyema as a disease that is "generally *acute* at the outset, but becomes chronic." In that respect he differs with some of our recognized authorities upon this subject. Acute miliary tuberculosis appears under the head of chronic inflammatory diseases of the respiratory organs of the chest, although the author regards it as a "constitutional affection," and one that may "not be inappropriately considered as an essential fever."

The subdivision, "Structural Diseases of the Respiratory Organs within the Chest," includes a class of affections which, in general, involve appreciable changes of structure without inflammation as an essential condition. At first, the heading was confusing; but, when coupled with the definition in the text, it is easy to understand the meaning of the author. The suggestion then is that the heading should receive an explanatory word. Another suggestion which your reviewer offers is, that the well known views of the author regarding the essential nature of certain pulmonary affections would have warranted him in placing those diseases in a separate chapter, having an independent heading descriptive of the special views entertained. For example, diseases of the respiratory organs, essentially fevers.

In the second section, diseases of the circulatory system are considered. We notice, first, the preliminary observations on the symptomatology and physical signs of cardiac disease, and symptoms and signs referable to vessels; and, second, the diagnosis and treatment of diseases of the circulatory system. The diseases considered in this section are: I. Diseases of the blood; II. Inflammatory diseases of the heart; III. Structural diseases of the heart; IV. Functional disorders of the heart; and, V. Diseases of the vessels. This section has a classical appearance, and is a valuable digest from the pen of one of the masters in physical diagnosis.

The third section is devoted to diseases of the digestive system, and has the same general arrangement as that seen in the preceding sections. In the fourth section the author considers the diseases of the urinary system; and in the fifth section, the diseases of the nervous system. The fifth section occupies the largest space, and in it is included the consideration of mental affections. The sixth section embraces the consideration of fevers, continued, periodical, and eruptive, and other general diseases.

On page 684, under the heading "Prevention of Typhoid Fever," there is an intermingling of sentences relating to causation by means of drinking-water and by breathing air containing effluvia from decomposing human fæcal excrement, that is striking, and especially so in the light of the author's uniform clearness of expression.

We confess we are not a little disappointed regarding the general scope of this work. It does not possess the value we had expected to find when we compare it with the author's excellent treatise on "The Principles and Practice of Medicine." We cannot help believing that, had the author expended the same amount of labor in enlarging and perfecting his valuable treatise with which the medical world is already familiar, he would have rendered the medical profession a greater service and would have earned for himself a more enduring fame than that which will arise from his work on "Clinical Medicine."

The intrinsic value of the book has not been overlooked while offering the above criticism.

THE NATIONAL BOARD OF HEALTH.—Dr. Turner, Secretary of the Executive Committee, sent in his resignation as member of the Board. It was not accepted, but he has been given thirty days' leave of absence.

The *Bulletin*, which has been edited by Dr. Bailhache, and temporarily by Dr. Stephen Smith, has been, by resolution of the Executive Committee, placed under the direction and supervision of Drs. Billings and Turner.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 16, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M. by the President. The minutes of the last two stated meetings were read by the Secretary, DR. H. T. HANKS.

The President introduced to the Academy Dr. Lee, of Oswego, and Dr. Bunn, of China, and invited them to take seats upon the platform.

LIBRARIAN'S REPORT.

The Librarian, DR. LAURENCE JOHNSON, reported that, since the last stated meeting in June, there had been donated to the library 900 bound volumes and over 4,000 unbound volumes and periodicals. Special mention was made of a complete set of bound volumes [110] of the London *Lancet*, from 1823 to 1876, presented by the President; 54 bound volumes of their own publications, by Messrs. D. Appleton & Co.; 368 bound and 502 unbound volumes, devised to the Academy by the late Dr. Henry S. Downs, a Resident Fellow; an autograph letter of Sir Astley Cooper, presented by Dr. Wm. Detmold; 64 bound volumes, presented by Dr. E. S. F. Arnold, of Newport, R. I.; 22 volumes of the Natural History of the State of New York, donated by Dr. J. G. Adams; the library of the New York Dermatological Society, presented by the society; 1261 Medical Journals, presented by Dr. C. W. Bernachi; 143 bound volumes, by Dr. J. H. Douglas; and an additional instalment of his library on cholera, by Dr. John C. Peters.

DR. S. S. PURPLE announced the presentation to the library, by Dr. Abram Du Bois, of 550 bound volumes, which were donated at a cost of $1,318.28.

On resolution offered by Dr. Purple, the thanks of the Academy were tendered to Dr. Du Bois for his munificent donation.

Dr. Purple also announced the reception of a check for $200 from Mrs. John Jacob Astor, to be expended in the purchase of books for the library.

On resolution offered by Dr Purple, the Academy extended a vote of thanks to Mrs. Astor for her generous donation.

On motion made by DR. PIFFARD, a vote of thanks was extended to Messrs. D. Appleton & Co. for their donation to the library of the Academy.

On motion made by DR. JOHNSON, the thanks of the Academy were tendered to the Dermatological Society for its donation to the library of the Academy.

On motion made by DR. HUBBARD, the thanks of the Academy were extended to the President for his gift of the marble bust of Mr. T. Spencer Wells, the presidential chair and table, the Secretary's table, and the reading-table.

On motion made by DR. PURPLE, a vote of thanks was tendered to Mrs. Fanny C. Hartley, a daughter of one of the founders of the Academy, the late Dr. White, for a donation of $200.

On motion made by DR. WM. T. WHITE, a special vote of thanks was tendered to the Building Committee, Drs. Purple, Hubbard, and Governeur M. Smith.

NON-RESIDENT MEMBER.

The Secretary read the resignation of Dr. John J. Mason as Resident Fellow, and, on motion made by Dr. Detmold, Dr. Mason was elected a Non-resident Fellow.

The next business in order was the lecture, which was given by DR. JOHN C. DALTON, on

CEREBRAL ANATOMY,

attention being directed especially to the anatomy of the corpus striatum.

The anatomy of the brain, said Dr. Dalton, is complicated in its details, but simple in its general structure. It consists of gray and white matter. The gray matter is arranged in two separate divisions, occupying two separate localities: 1. Exterior, convolutions; 2. Interior, cerebral ganglia, the corpus striatum, and the optic thalamus. The white matter is a continuation of the longitudinal columns of the spinal cord. The ascending fibres of white substance were then traced through the medulla, the pons varolii, crura cerebri, internal capsule, and to the fan-shaped expansion, the corona radiata. In the cerebro-spinal system, counting from without inward, there are three distinct deposits of gray matter: 1. The gray matter of the spinal cord; 2. The gray matter of the cerebral ganglia; and 3. The gray matter of the convolutions.

The doctrines now in vogue—even the recent views of Meynert and others, when divested of superfluous nomenclature—regarding the anatomy of the brain, were based upon the general view of three successive deposits of gray matter, connected with each other by three successive sets of white fibres. Of these three deposits of gray matter, the middle consists of the large cerebral ganglia, both of which occupy about the same level.

Dr. Dalton then referred to differences between the corpus striatum and the optic thalamus—the latter, on section, presenting a rather uniform gray tint, and the former showing white fibres arranged in bundles visible to the naked eye, and giving it a striated appearance. The corpus striatum was made up of two distinct parts: 1. Anteriorly, the intra-ventricular portion, or caudate nucleus; and 2. Posteriorly, the extra-ventricular portion, or lenticular nucleus. The optic thalamus was a single ganglion by itself. Of late it had become quite customary to restrict the term, corpus striatum, to its intra-ventricular portion.

He then alluded to the situation of these masses of gray matter with relation to the internal capsule and the crura cerebri, and passed to the consideration of the internal capsule. It could not be seen that the internal capsule was composed throughout of fibres which run continuously from the medulla oblongata below to the convolutions above, but, on the contrary, there was a strong conviction that they were not the same fibres, and that in the passage from below upward there was an interchange of fibres, in the cerebral ganglia, not visible to the naked eye. In a physiological point of view there was no doubt that it was the channel of conduction between the hemispheres and the spinal cord.

Dr. Dalton then passed to the consideration of certain general and specific differences between the human brain and the brains of animals. The general difference consisted in the greater development of cortical substance. The specific differences were two: first, the fissure of Sylvius was double in the human subject, consisting, 1, of a posterior branch, which was simply an elongation of the Sylvian fissure, as

seen in the brain of the fox; and 2, an anterior branch; and between the two there was a triangular mass which was known as the *operculum*, and below them a group of convolutions known as the island of Reil. He then directed attention to the formation of the fissure of Rolando, which was simply a dividing line between the descending and ascending portion of a curve the convolutions made in addition to the double curve formed on the convexity of the hemisphere; to the cuneus, the precuneus, and the paracentral lobule; to the gyrus fornicatus; and then spoke of the special anatomy of the corpus striatum, which was usually described as a gray mass having an enlarged club-shaped extremity, directed forward and occupying the anterior horn of the lateral ventricle, and a cylindrical tail-like prolongation directed backward, and running along the outer edge of the lateral ventricle and terminating somewhere about the posterior end of the optic thalamus. In reality it was much more extensive than that. In fact, the extent of the corpus striatum was almost that of a complete ring encircling the crus cerebri and internal capsule, exactly as did the gyrus fornicatus. That arrangement could sometimes be seen simply by opening the lateral ventricle throughout its entire extent. It had enlargements in its course, and was more or less interrupted by oblique fibres, which came from the tænia semicircularis.

The anterior extremity of the corpus was connected with the gray matter of the convolutions at the base of the brain, just in front of the Sylvian fissure; and in a similar way the end of its curved portion was connected with the gray matter at the inferior extremity of the posterior horn of the lateral ventricle, with the amygdala just underneath the lenticular nucleus. In the smaller portion of the corpus striatum the striations were lost. The corpora striata were masses, which correspond in structure exactly with the remainder of the hemispheres.

In the discussion that followed, Dr. E. C. Seguin directed attention to two points: 1. The great importance of clearly separating the nucleus caudatus from the nucleus lenticularis. They were almost completely separated anatomically, and the functions of the two parts were distinct. The nucleus caudatus had a more intimate connection with the motor tract than had the nucleus lenticularis.

2. The importance of understanding the true relations of the internal capsule. If any fact had been demonstrated by the help of pathological anatomy, it was that there was a continuous connection, by means of the white matter, between the cortex of the brain and the spinal cord. It was interesting to notice the growth of opinion relative to the physiological importance of the internal capsule, the nucleus caudatus, and the nucleus lenticularis. There were competent observers who doubted whether hemorrhage into the lenticular nucleus was a cause of hemiplegia. Charcot was of the opinion that the hemiplegia was produced by the pressure exerted upon the internal capsule. If the lesion destroyed the anterior portion of the internal capsule, motor disturbances followed; if the lesion was in the posterior portion, sometimes distinct motor symptoms were developed, but most prominently sensory disturbances upon the opposite side.

Dr. E. G. Janeway referred to a case which threw doubt upon the belief that destruction of the posterior part of the internal capsule always produced hemianæsthesia. In a case of hemiplegia the leg almost entirely recovered, the arm remained a trifle stiff, but possessed considerable power, and there was no anæsthesia. The patient died a year and a half afterward, and it was found that the lesion involved the entire posterior two-fifths of the caudate nucleus, all the internal capsule between it and the lenticular nucleus, besides producing well-marked atrophy of the lenticular nucleus and anterior part of the optic thalamus. With reference to effects produced by lesion in the lenticular nucleus, he referred to a case in which a tumor was limited to that region, was not capable of producing much pressure on surrounding parts, and yet the symptom was simply aphasia, with a certain kind of dizziness having no special significance. He had also seen a case in which the lenticular nucleus was the site of an old cyst, which produced persistent aphasia. How explain the aphasia?

Dr. Wm. H. Welch said that the valuable contribution of Dr. Dalton to the anatomy of the corpus striatum proved that there was still room for work in the topographical anatomy of the brain. The statement of Dr. Dalton, concerning the termination of fibres of the internal capsule in the basal ganglia, needed modification, since the researches of Flechsig had shown that the fibres which convey voluntary motor impulses from the central convolutions passed through the posterior third of the internal capsule, without terminating in the caudate or the lenticular nucleus. This discovery was in opposition to Meynert's theory of the three projection systems. Dr. Janeway's case of absence of anæsthesia with a lesion of the posterior part of the internal capsule, was rather in accord with Flechsig's views than with those of Charcot, who placed the motor fibres in the anterior two-thirds of the internal capsule.

Notwithstanding Meynert's brilliant investigations, the purely anatomical methods, while they taught us the topography of the brain, had given us very little certain information concerning its inner architecture —that is, the course pursued by nerve-fibres and the connections between the different nerve-centres. For a knowledge of these most important relations we were to look also, in the future, to embryology, comparative anatomy, pathology, and experimental physiology. Flechsig's embryological researches and the experiments of Gudden on young rabbits were referred to. Comparative anatomy might be expected to give important information, after the homologies between the different parts of the brain of man and those of the lower animals had been more clearly determined than was yet the case. But caution was requisite as regards applying directly to man the observations made on the nervous system of the lower animals, since it had been shown that the pyramidal-fibres, for instance, occupy very different parts of the spinal cord in different animals. As a basis for the study of the localization and of the connections of nerve-centres and of nerve-fibres, an accurate topographical anatomy of the brain was indispensable.

Dr. W. A. Hammond, on invitation, remarked that it was held by neurologists in general that lesion in the optic thalamus was followed by temporary paralysis upon the opposite side and hemianæsthesia; that a lesion confined to the intra-ventricular nucleus gave rise to transient hemiplegia upon the opposite side, with derangement of sensibility; that a lesion involving the extra-ventricular nucleus also produced transient hemiplegia upon the opposite side; that a lesion involving the anterior portion of the internal capsule produced permanent hemiplegia upon the opposite side, much more so than lesion involving either the corpus striatum or optic thalamus; that a lesion involving the posterior two-thirds of the

internal capsule produced permanent paralysis, hemianæsthesia, and permanent contraction of the muscles. He thought that when contractions of the muscles came on later they were not cerebral in origin, but depended upon secondary degeneration of the spinal cord.

Dr. Dalton replied to Dr. Welch, who thought that we should look for the most permanent advancement in our knowledge of the brain in pathological observation and physiological experiment, because so little real information had been obtained by purely anatomical investigations, and did so with the greatest respect for his opinion, by entering a protest against this view, for the reason that too much had already been done in that direction. For example, a section is made directly through certain nerve-fibres and certain effects are produced upon distant parts, and immediately we deduce anatomical facts from physiological experiment—a method of reasoning which he believed was entirely wrong. The same was true with regard to pathology. For example, a tumor in a certain portion of the brain is associated with symptoms produced in a certain part of the body, but it was impossible to say that nerve-fibres extended from the first place to the second. He thought one of the faults that had been committed was conducting purely anatomical investigations of the brain by means of physiological experiments and pathological observations. Both had their distinct values.

Dr. E. C. Spitzka, on invitation, spoke of the development of the corpus striatum in the lower animals, and also in man, and said that he had found the portion most posterior, to be composed more of neuroglia and atrophic elements, than of real ganglion tissue. With regard to Dr. Dalton's interpretation of the amygdala, he thought it would bear further investigation. He also thought that the results obtained by Flechsig, referred to by Dr. Welch, had been overrated, for F. had so confounded anatomical parts that his opinion could not be regarded as one having very great value. He then spoke regarding the striated appearance of the corpus striatum and the arrangement of the convolutions.

Dr. Welch remarked that he placed physiological experiments as the least valuable, of those mentioned, as a means of research. He thought, however, that experimental physiology and pathology had been of no slight service, inasmuch as they had taught us the location of psycho-motor and psycho-sensory centres, in the cerebral cortex, and the course of certain groups of important nerve-fibres in the brain and the spinal cord.

The Academy then adjourned.

Correspondence.

"THE DISCOVERER OF ANÆSTHESIA."

THE CLAIMS MADE FOR DR. LONG CRITICISED.

To the Editor of The Medical Record.

Dear Sir:—On the occasion of the presentation in connection with the subject embraced in the above title, of the double portrait of Drs. Long and Sims to the Legislature of the State of Georgia, an event described in a late issue of the Record, a distinguished speaker * is quoted as using the following words: "It so happens that we are indebted mainly to Dr. Marion Sims . . . . for the final and almost unquestioned recognition of Dr. Long as the real discoverer of anæsthesia."

A statement, grave and unjust as this is, and emanating from an authority* as high as apparently misinformed, merits a notice, not yet, now for two years, accorded from any source to the senator's informant. But filial if not indeed abstract duty now demands a word. Under these circumstances, Mr. Editor, will you kindly allow me, uninviting and ungracious as the task of controversy may be, and reluctant as I am to see its inherited shadow even, falling in my direction, a brief space for a passing memorandum.

In 1849, three years after the practice of anæsthesia by sulphuric ether began and became universal as a result of the Boston revelation of 1846, Dr. Long, above referred to, for the first time in print, or writing, or otherwise publicly, made the tardy statement† that he had experimented with ether twice in 1842 and three times subsequently in as many successive years. Curiously enough, in this communication Dr. Long records not alone that he "used ether"—a fact which no one would wish to deny—but in the same moment, also, that he did not use it in a manner or to an extent satisfactory in its results either to himself or others. This, indeed, might be inferred from the facts that in the course of the four years over which his experiments extended, no one else used ether, and that neither then nor later was ether used because he had used it, or from any knowledge of his five experiments. But it is more convincing to find the confession that, as we shall see later, his experiments were total failures, and finally abandoned, recorded in his own language. Very naturally, Dr. Long's statement passed unnoticed at the time it was made, both because it had no bearing upon the events of 1846, because the medical world contemporaneous with the period of his alleged experiments, 1842–46, had no knowledge of the existence of any practice of anæsthesia, and because, as we have said, his experiments covered no more than the technical claim of a "use" of ether—confessedly unsuccessful. It is more than probable, indeed, that this after-clap statement would never have seen light but for the world-wide fame which greeted the discovery of 1846. Dr. Long was only one of dozens who were stimulated at that time and later to relate past experiences and experiments with anæsthetic agents, any one of whose narrations could to-day be made to serve the same purpose that Dr. Long's account is now being made to serve.

Almost nothing further was heard of Dr. Long's tardily-recited experiments until 1877, when they were resurrected by Dr. J. Marion Sims and made the peg on which to hang a claim to the whole discovery, and designate their author "discoverer of anæsthesia"‡ This claim made for Dr. Long in 1877, unjust, sophistical, and Quixotic as it was, extended to limits unauthorized by anything that Dr. Long ever wrote, and garnished by incidents and statements demonstrably false, has remained unanswered up to this moment. But your account of the proceedings in the Georgia Legislature indicate that the motives for silence have been mistaken, that silence has been misconstrued into consent, and that squatter rights have grown by default of contradiction into a sense of quasi-proprietorship. It is indeed true that Dr. Long's "claims" have not been questioned. The scientific world, which has long since regarded this controversy as settled, is not usually roused into contradiction or questioning by the adventurous title of "discovery" applied to a short half-dozen of crude, unnovel, isolated, unannounced,

* United States Senator Gordon.

* Senator Gordon.

† Southern Medical and Surgical Journal, Dec., 1849.

‡ Virginia Medical Monthly, May, 1877.

fruitless, and abandoned experiments attached as an after thought to a great discovery. And, because unquestioned, it by no means follows that any "final recognition" of them exists, unless, indeed, it is the proceedings attending the presentation of the dual portrait alluded to. Beyond this it is not known that the claims set up for Dr. Long have been in the slightest degree recognized. And it is, perhaps, a little hasty to assume that the Legislature of Georgia can make a recognition final upon the testimony of one witness whose evidence has not been questioned even. Such judgments are usually rendered after hearing both sides of a case, and that not from the mouth of a single advocate. Legislative snap-judgments of this nature can scarcely do less than reflect upon the integrity of their authors.

The limits of a memorandum forbid any further allusion to the presumptive and historical evidence against the claims made for Dr. Long. We pass on to evidence of fact, first noting a certain ambiguity in the terms "discovery of anæsthesia," favorable to the after-crop of "discoverers" which usually follow in the wake of a great discovery. In the word anæsthesia exists two meanings: the abstract fact or law of insensibility to pain, however induced or occurring, *i. e.*, the science, and the method, process, and practice of inducing this state for surgical operations, *i. e.*, the art. Discoverers find out something which has always existed, but which has not been known. Galvani discovered galvanism, but galvanism had always existed. Inventors combine known scientific or other principles so as to produce something utterly new, *i. e.*, a new machine or process. Now, anæsthesia, the abstract principle, is as old as human observation. It was not given to Dr. Long or any known man to "discover anæsthesia" in this sense. But the practice and the process of anæsthesia was new—the result of a combination of many known scientific factors. It was, therefore, an invention—the invention of anæsthetic inhalation for surgical purposes.

Did Dr. Long make this invention? Before answering this question we will formulate, for the sake of brevity, several propositions bearing upon the origin of the invention. These are:

1. That the scientific fact of a state of insensibility to pain had always been known.

2. That the quality inherent in certain medicaments, whether gases or liquids, and other agents to produce this state, whether by inhalation or potion, or other effect, had equally always been known; it was known, for instance, that the vapor of sulphuric ether caused insensibility to pain, though its use was stated to be attended with danger to life.

3. That what was unknown was the application to the surgical needs of humanity, of the process of inducing anæsthesia, an application demanding demonstration, not only of its possibility (a fact which was known), but also of its possibility in a safe, certain, efficacious, in short, available manner. Such a demonstration and application required the use of any known medicament to an extent (if ether, of stupor), and in a manner up to that time unknown. It would be essential also to announce this invention.

4. That many individuals had attempted to make this demonstration and application, *i. e.*, invent the anæsthetic process.

5. That demonstration and application to human affairs constitute the sole basis to a tenable claim to the invention or "discovery of anæsthesia," for one reason among others, that all else was known to modern times, *i. e.*, the conception or abstract idea of anæsthesia, and the intention and attempt to produce it for surgical operations.

6. That this invention was not made until 1846, (*a*) because all the world agrees that its practice and knowledge of the anæsthetic process began then; and (*b*) because up to that moment both the word and the practice were unknown to surgery, or to surgical or other literature.

7. That Dr. Long did not make this invention in 1842, or later, *i. e.*, did not "discover anæsthesia" then, or ever.

It is with this latter proposition that we shall at present deal.

As we have seen, the anæsthesia of which we speak, is an invention, a process, an art. And we may confine ourselves to the simple question, who invented it? (We cannot speak of a discovery, when nothing to discover existed.)

Now Dr. Long stated in 1849, that he was "the first to use ether as an anæsthetic in a surgical operation," and this in 1842. Dr. Sims, in 1877, claims for Dr. Long, that "he was the first man to intentionally produce anæsthesia for surgical operations, and that this was done with sulphuric ether in 1842."

But, in doing what Dr. Sims claims for him, Dr. Long did not advance one step beyond the works of many before him. And we allude here to modern times only.

M. Dauriol, in 1832, specifies five cases in which he "succeeded in performing painless operations."

Hickman, of London, in 1828, details a method of "suspending sensibility by the methodical introduction of certain gases into the lungs," during which "the most delicate and most dangerous operations are performed without producing pain in the individuals submitted to them."

Did Dr. Long do more than Hickman, or Hickman more than his predecessors, *i. e.*, fail to establish their process?

Collier, of Louisiana, performed five painless operations upon patients rendered insensible by alcohol. And Esdaille, Haller, Deneux, Blandin, and many others report painless operations.

If the statements just made are true, Dr. Long was not "the first man to intentionally produce anæsthesia for surgical operations." Dauriol, Hickman, Collier, Esdaille, and many besides them preceded him. These men are discoverers just as much as Dr. Long is. This, indeed, disposes of Dr. Sims's claim for him.

But Dr. Long himself says that he was "the first to use ether as an anæsthetic in a surgical operation." Now, the agent employed is perfectly immaterial, whether one vapor or another. The claim of "use" of this or that agent is an insufficient one. The question, of course, is to what extent, and in what manner was ether used. Was it so used as to establish the invention of anæsthesia? Aërial navigation is to-day a chimera. But the man who makes travelling through the air as practicable as Fulton made steamboat travel, or as Morse made telegraphy, or as Morton made anæsthesia, will certainly never have any peace from the clamor of the men who had previously "used" balloons.

But at this point we may ask, wherein did Dr. Long fail? Simply in this, because he fulfilled none of the requisites of an invention. Science does not accept crude, unestablished, unaccepted experimentation as an invention. It requires a perfect demonstration. The invention must leave the inventor's hand in such a form, that others are able to repeat, accept, and practise it. Upon this point, scientific

precedent as well as the laws of the land agree. As is clearly stated by Chief-Justice Story, than whom no higher authority upon this point exists, the invention must be in such form that others may be able "to produce precisely the result described, by using the means specified, without any addition to or subtraction from them."

Dr. Long did not do this. No one repeated his experiments—not a physician or surgeon used ether because he used it, and medicine did not learn from him that anæsthetic inhalation for surgical operations was practicable.

Thus far we have written without "questioning" the verity of Dr. Long's five cases of anæsthesia. Granting all that is claimed for him, we wished to show that even then he could in no wise be considered as the inventor of anæsthesia. We will now prove in his own words that he never produced the anæsthesia, which we have for the moment admitted. In doing this his claim falls doubly flat,

"And error . . . . dies among his worshippers."

In his communication, already referred to, made in 1849, Dr. Long says: "*The result of my second experiment in etherization was such as led me to believe that the anæsthetic state was of such short duration that ether would only be applicable in cases in which its effects could be kept up by constant inhalation during the time of the performance of the operation. Under this impression, up to January, 1847, I had not used ether in but one case in extracting teeth, and thus deprived myself of experimenting in the only class of cases which are of frequent occurrence in a country practice.*"

This quotation shows exactly what Dr. Long's "anæsthesia" was. It comprises his whole idea of anæsthesia—from his second experiment in 1842 "up to January, 1847," three months after Morton's anæsthesia of October, 1846. What then does he mean by the term—was it the anæsthesia of to-day, or has he applied the term improperly? Dr. Long obtained certain "effects" which were of "short duration," "of such short duration" that ether would only be applicable in cases in which these effects could be kept up by constant inhalation."

What class of cases can Dr. Long refer to as those in which ether would *only* be applicable? He evidently does not think that there are many cases in which it would be applicable, for, under this impression, he had used it in but one case in extracting teeth during a period of five years. And how reconcile this with the familiar fact, that the anæsthetic state of to-day, and dating from 1846, can be kept up in *all* cases and as long as the surgeon pleases? If this state can be kept up now it could have been kept up in 1842, if Dr. Long had known that it could. And if he had known this he would have resorted to *constant inhalation* and have produced an anæsthetic state of *long* duration. But that he did not know this is more than a reasonable inference. It is established by his own admission. For, "under this impression, up to January, 1847," he had "deprived himself of experimenting in the only class of cases which are of frequent occurrence in a country practice." But why deprive himself of prosecuting his experiments in the simplest and most available cases? The answer to this question is inevitable; it is simply that "anæsthesia," as he understood it, was inapplicable because it was impracticable. It was not "anæsthesia" in any proper or recognized sense of the term.

This is an admission on Dr. Long's part in the clearest terms that his five experiments were failures; that they did not offer sufficient encouragement to justify him in continuing them in the simplest of minor operations; that, in short, he abandoned "up to January, 1847," all that is now claimed that he "discovered." The reasons why Dr. Long's anæsthesia was impracticable and abandoned are to be found throughout his communication. One curious conjecture arises frequently; this is, that Dr. Long did not give the ether by his own hand, but left it to the patient, who, in the first two experiments at least, had long been in the habit of "inhaling ether for its exhilarating effects." Venable, the subject of the first two experiments, and from whose neck in each a wen was removed, deposes on oath, "*I* commenced inhaling the ether before the operation was commenced, *and continued it until the operation was over.*" There is a choice of horns in this dilemma. If Venable was etherized as patients are etherized to-day, he could not swear that "he continued it until the operation was over." If he did know what took place, then he was not etherized as patients are etherized to-day. Of the second experiment, Venable swears, "In this operation *I* stopped inhaling the ether before the operation was finished," giving this as a reason for feeling a "little pain" when "the last cut was made." This is the experiment, be it noticed, which taught Dr. Long that the "anæsthetic state was of such short duration," etc. The situation is perfectly clear. Venable was administering the ether to himself; the state was short because his hands would naturally drop from his face before either unconsciousness or anæsthesia supervened. In his whole article Dr. Long does not once say that he himself held the towel or sponge. This may be inadvertence. If a true statement of the case, it shows that the "effects" alluded to were simply those of intoxication, or, as Dr. Long everywhere says, "exhilaration;" it shows why Dr. Long's "anæsthesia" was imperfect, impracticable, and abandoned. Dr. Long himself says of the first operation: "*The patient* continued to inhale the ether during the time of the operation." (Inhale is used throughout the article in the sense of the act of giving the ether.) And of the second operation: "In this operation the inhalation of ether ceased before the first incision was made; since that time I have invariably desired patients, when practicable, to continue its inhalation during the time of the operation." These words are meaningless, unless it is accepted that the patient gave the ether to himself. Grant that the patient was the administrator, and we must grant that the etherization was incomplete; and that the anæsthesia in this second operation was incomplete, both Venable and Dr. Long admit. Venable says he felt a "little pain" when the last incision was made; Dr. Long says "he exhibited signs of slight suffering." We dwell perhaps a little minutely upon this second operation, because it is the one which forms the basis of Dr. Long's declaration of faith—the one whose results taught him that the process which he afterwards dignified with the term anæsthesia was impracticable. And no later experiment taught him more than this. We have the curious exhibition of a man in the same breath with which he is attempting to establish a claim, declaring with absolute clearness that his efforts were a failure.

But the evidence is cumulative that Dr. Long was experimenting merely, and had no notion of the anæsthesia of to-day. He says:

"While continuously" (one case annually, be it noted, from 1842 to 1847) "experimenting with ether, with a view of *fully testing** its anæsthetic powers and its applicability to severe as well as minor

*Italics ours.

surgical operations ("I had no opportunity of experimenting with it in a capital operation",* others more favorably situated, engaged in similar experiments, *and consequently the publication of etherization did not halt upon*." Well, the world is sorry, but if Dr. Long had not "fully tested" the anæsthetic powers of ether, his time evidently had not come. Another "fully tested" the anæsthetic powers of ether in 1846. Hinc illæ lachrymæ.

Dr. Long explains in another place why he was uncertain and doubtful of his results—why they needed more testing. He writes:

"The question will, no doubt, occur, why did I not publish the results of my experiments in etherization soon after they were made? I was anxious, before making any publication, to try etherization in a sufficient number of cases to *fully satisfy my mind that anæsthesia was produced by the ether*" (italics ours), "and was not the effect of the imagination or owing to any peculiar insusceptibility to pain in the persons experimented on. At the time I was experimenting with ether, there were persons 'high in authority' who were advocates of mesmerism," etc. These terms anæsthesia and etherization glide glibly from Dr. Long's pen, but it must be remembered that they are the words—the plumes—appropriated from the man who did not "bide his time," and we begin to see from Dr. Long's confessions what bare limbs he is decking out in the borrowed finery of 1846; not till then, evidently, was his mind fully satisfied that anæsthesia was produced by the ether.

Great stress has been laid upon the argument that Dr. Long should not suffer from his failure to publish his experiments. We may waive argument upon this point, and submit as a substitute the remark that Dr. Long had nothing worth publishing. For supposing that he had printed in a scientific journal the results of five experiments not yet fully tested and about which he was not yet fully satisfied as to whether they were due to imagination, idiosyncrasy of the patient, mesmerism, or ether, can it be for one minute believed that the world would have hailed him as the "discoverer of anæsthesia?" And is not such a claim, set up for him, in mild terms at least presumptuous? And further, according to Dr. Long's positive avowal, he contributed no information whatsoever to the world; his existence even was unknown to the actors in the events of 1846, the date of the beginning of the universal practice of anæsthesia. Truly the title of "a world's benefactor," so freely bestowed in the legislative proceedings alluded to, is an extravagant term to apply to a man who confessedly gave the world nothing. If Dr. Long had made an invention or discovery he owed it to the world to tell of it. If he had not, he did well to keep silent. With a discovery of such incalculable worth in his hand it is a question as between Dr. Long and the world whether his conduct was not more disgraceful than pardonable. All the unrelieved agony of those four years lies at his door, that is to say, if he was a "discoverer"; but if he was waiting to experiment, to test, to remove his doubts, then he was neither inventor nor discoverer, and the world can excuse him. We think that his conception of anæsthesia, as he himself has expressed it in the quotations we have given, quite justifies his silence, and equally exonerates him before the world of being either inventor or discoverer.

Dr. Long, then, to sum up, left the anæsthetic process where others had left it, and where he found it—a thing possible and to be desired, conceived of and attempted, but not demonstrated to his own or any follower's satisfaction, and not applied to human affairs or established. And more than this, in failing to publish the results of his experiments, and in thus avoiding contemporaneous (1842–1846) scientific and popular criticism, he vitiates the merit of any subsequent claim made and interpreted in the light of the established facts of others who dared such an ordeal.

And here we leave the subject, conscious that we have endeavored to do Dr. Long and his promoter the fullest justice, and in taking leave of them we ask an impartial and candid profession, if it does not appear that his friends, in giving Dr. Long the comprehensive title of "discoverer of anæsthesia," are claiming far too much for him?

WILLIAM J. MORTON, M.D.,

13 EAST THIRTY-THIRD ST., Saturday, Oct. 18, 1879.

* Quotation from another place omitted here.

Obituaries.

GEORGE W. CALLENDER, F.R.S.,

LONDON, ENG.

THIS eminent English surgeon died on board the steamship Gallia, which sailed from this port for Liverpool Wednesday, October 15, 1879. During his visit to this country in 1878 we were favored with the opportunity to give to our readers some of his practical instructions in the details of surgical dressings. His simple yet effective manner of protecting his patients from unnecessary pain, and his unostentatious style in presenting his views upon any subject won for him a multitude of admirers in the medical profession. He determined to pay the United States another visit, and accordingly, on the 26th of August, 1879, he sailed from Liverpool on the steamship Gallia, and arrived early in September. Almost immediately after his arrival he became the guest of his old friend, Mr. George W. Childs, the editor of *The Public Ledger*, at his country seat at Long Branch, where he remained for some time. He then spent considerable time in visiting friends in various localities, and, when taken sick, he was at the house of Mr. Henry C. Lea, of Philadelphia. He at once placed himself under the medical care of Dr. Da Costa and Dr. Levis, and was seen by other Philadelphia physicians. Previous to this sickness he regarded himself as a healthy man, and had not the least suspicion with reference to the disease from which he was suffering. Dr. Da Costa suggested that his urine be examined, and Mr. Callender made the examination himself, when he found it loaded with albumen. His feet were then œdematous, and his pulse was feeble. His urine, on microscopical examination, was found to contain large and small hyaline and granular casts, had a specific gravity of 1014, besides a large quantity of albumen. Having a desire to reach his home, his physicians consented that he should attempt the journey, and accordingly he was brought to New York in a special train and carefully transferred to his state-room in the Gallia, which sailed as above mentioned, and a cable dispatch to Mr. Childs announced that he died on the Monday following the day of his departure.

His affection was Bright's disease of the kidney, and he was about fifty years of age when it terminated fatally.

Mr. Callender served as Demonstrator of Anatomy in St. Bartholomew's Hospital twelve years; was then

made Professor of Anatomy, and afterwards Surgeon to the same institution, to succeed Sir James Paget.

He was Professor of Anatomy in the University of London, and in February, 1879, was appointed Professor of Surgery in the same institution. He was also Examiner in Anatomy in the University of Cambridge.

He was made a member of the Royal College of Surgeons July 16, 1852, and a Fellow, November 15, 1855. He was also a Fellow of the Royal Medical and Chirurgical Society, and Consulting Surgeon to the Western General Dispensary.

His writings consist chiefly in papers published in the Proceedings of the Royal Society, the Philosophical Society, the Medical and Chirurgical Transactions, the St. Bartholomew Hospital Reports, and in the *Journal of Anatomy and Physiology* and *Medical Journal*. Some of his papers are very elaborate, and possess great scientific value. Among them is a very interesting paper on "The Formation of the Subaxial Arches in Man," read March 16, 1871; a paper on "The Formation and Early Growth of the Bones of the Human Face." Both of the above papers were communicated by Sir James Paget to the Royal Society, and the latter was read in June, 1868.

In 1863 he read an able paper on "The Anatomy of the Parts contained in Femoral Rupture." He was then Assistant Surgeon and Demonstrator of Anatomy in the St. Bartholomew's Hospital. He also had done some original work with reference to the development of the thyroid gland and the human brain.

By his modesty, his scientific attainments, his gentle disposition, and his social abilities, he endeared himself in the memory of the many Americans with whom he became acquainted during his visits to this country.

He fell in the prime of his manhood, and in the midst of his usefulness, and will be mourned by the whole medical profession.

EDWARD L. McWITHEY, M.D.

One of the younger graduates of the College of Physicians and Surgeons in this city, Dr. Edward L. McWithey, died suddenly October 24, 1879, of Bright's disease, at his residence, No. 326 West Thirty-fourth Street, at the age of twenty-seven years. His professional career was commenced in Greenville, Jersey City, and he pursued his studies with such success that he rapidly attained an excellent practice. His disease resulted from an attack of diphtheria contracted in 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 19 to October 25, 1879.

Wolverton, W. D., Major and Surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 115, Dept. of Dakota, Oct. 18, 1879.

Caldwell, D. G., Capt. and Asst. Surgeon. Upon withdrawal of troops from Ft. Independence, to report to Comd'g Officer, Ft. Warren, Mass., for duty as Post Surgeon. S. O. 165, Dept. of the East, Oct. 20, 1879.

Bartholf, J. H., Capt. and Asst. Surg. His temporary detail at San Diego Barracks, Cal., to terminate on 31st inst., and to return to Alcatraz Island, Cal., and resume his duties as Post Surgeon. S. O. 130, Div. of the Pacific and Dept. of Cal., Oct. 15, 1879.

Kilbourne, H. S., 1st Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon at Fort Porter, N. Y. S. O. 189, Dept. of the East, Oct. 24, 1879.

Hall, Wm. R., 1st Lieut. and Asst. Surgeon. Upon the termination of his services at Camp Winfield Scott, W. T., to proceed to and take station at Fort Cœur de Lion, Idaho. S. O. 142, Dept. of the Columbia, Oct. 10, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement.— Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 25, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 18, 1879...	0	10	31	3	48	31	0	0
Oct. 25, 1879...	0	19	34	1	36	33	0	0

The Yellow Fever.—The number of new cases of yellow fever developed in the city of Memphis from October 22d to October 28th, inclusive, was 11, and the number of deaths that occurred was 10. The total number of cases for this year to October 29th is 1,533, and the total number of deaths, 550.

An official announcement of the Board of Health October 25, 1879, has declared the epidemic ended. It says that but little danger is to be apprehended from yellow fever by absentees or other persons coming into the city, provided the instructions given regarding the ventilation of houses, bedding, clothing, etc., have been fully complied with. The people are advised, on their return, to avoid infected districts. With ordinary prudence, it is thought there is no danger of the disease spreading from the few cases which may yet develop. October 28th, no new cases reported within the past twenty-four hours.

The Medical Society of the County of New York.—At the annual meeting, held October 27, 1879, the following officers were elected for the ensuing year. *President*, Dr. Alfred E. M. Purdy; *Vice-President*, Dr. Horace P. Farnham; *Secretary*, Dr. Frederick A. Castle; *Assistant Secretary*, Dr. Wesley M. Carpenter; *Treasurer, pro tem.*, Dr. Orlando B. Douglas; *Censors*, Drs. J. E. Janvrin, Paul F. Mundé, E. C. Seguin, D. Webster, and F. V. White; *Honorary Members*, F. D. Lente, M.D., of Saratoga, N. Y.; John S. Billings, M.D., of Washington, D.C., and Gaetano La Logia, M.D., of Palermo, Italy.

The Committee on Prize Essays awarded the prize to Dr. Samuel Sexton, of New York.

Medical Department of Yale College.—Among the recent changes made in the faculty of the Medical Department of Yale College we notice that Dr. Matthew D. Mann, formerly of this city, has been appointed "Clinical Lecturer on Gynecology."

The annual meeting of the French Association for the Advancement of Science took place at Montpelier during the week from August 28th to September 4th.

Dr. John Jay Abernethy, Medical Director U. S. N., died of cardiac disease, in this city, October 28th, aged seventy four years.

Original Lectures.

CLINICAL LECTURE ON MANIA:

BEING THE FIRST OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY, DELIVERED UNDER THE AUSPICES OF THE COMMISSIONERS OF CHARITIES AND CORRECTION, AT THE NEW YORK CITY ASYLUM, WARD'S ISLAND, BY THE MEDICAL SUPERINTENDENT,

A. E. MACDONALD, M.D.,

NEW YORK.

GENTLEMEN:—In the present short course of lectures I desire to make my remarks as practical as possible; but there are two or three points which I think it will be of advantage for me to touch upon by way of introduction, and in regard to which it is necessary that we should understand each other, in order that you may understand the various patients which I shall have the pleasure of bringing before you.

In the first place, there is, as you are no doubt aware, a considerable confusion among different authorities in respect to the terms that are constantly used in reference to the subject of insanity. For this reason, perhaps, a few definitions of common terms may assist you to a more ready comprehension of the various points which will be brought up in connection with the different forms of insanity. As to the term insanity itself, this of all others has been interpreted in the most diverse ways. Without pausing even to allude to these, I will merely say that I believe the following to be the best and most comprehensive definition that can at present be arrived at:

DEFINITION OF INSANITY.

Insanity is a physical disease which manifests itself in a departure in thought, feeling, and action from the ordinary characteristics of the individual in which it occurs.

This recognizes and embodies two points, which are very important in my opinion, viz.:

First, That it is not a metaphysical disorder, but a real physical disease; and

Second, That we are to look for the standard of comparison in the person affected, and not in other individuals or an ideal type.

There are three other terms which we shall constantly have occasion to make use of, and in regard to the exact meaning of which there is a very indefinite idea in the public mind. These are, delusion, illusion, and hallucination. They are very apt to be used indifferently; but, while they have something in common, each expresses a distinct phase of thought. A delusion is a false or mistaken belief, and a person holding it cannot be argued out of it. Illusions and hallucinations, on the other hand, are mistaken perceptions of the senses, and the subject of them firmly believes that he sees, hears, or smells something which has no existence in reality; but, while an illusion originates in something that is actually appreciated by the senses (although it becomes distorted into something totally different), an hallucination originates in nothing. For instance, an individual suffering from illusion may look at plants or other inanimate objects and imagine that they are human beings; but one who is the subject of hallucination does not require the presence of any such object in order to have his morbid perception.

The differences in regard to the use of terms, and also as to the nature of the various forms of insanity, extend throughout all the treatises on the subject, and each writer has his own classification. In some works pathological differences are made the basis of this, and if our pathological knowledge in this department were only sufficiently far advanced, it would probably be the best one of all; but, unfortunately, this is not the case. Others base their classification on etiology, and others again on physiological, physical, and metaphysical characteristics respectively. For my own part, I prefer to be guided in this respect by the general drift of the symptoms observed; and, in pursuance of this plan, we recognize four forms of insanity.

CLASSIFICATION OF INSANITY.

These are, mania, melancholia, dementia, and general paresis. The last has been added comparatively recently; but the others constitute the natural system which has been in vogue for many years, and has been adopted by many of the best authorities. Before proceeding to the subject proper of to-day's lecture, I will point out to you examples of each of these forms, and mention a few of the prominent characteristics pertaining to each. If you will look at this row of men sitting upon the bench before you, you will, I think, at once notice two things: *first*, that they are different in their general appearance from ordinary sane individuals; and *secondly*, that they differ very greatly among themselves. In the eight patients now present there are two belonging to each of the above forms. The first couple to which I call your attention are the subjects of

MANIA,

and I should like you to notice the marked contrast which they present in their whole aspect to the couple next them, who are affected with melancholia. Taking one of the first class as an example, we find that the man is all activity. He is constantly thrown out from himself, as it were, and notices everything that goes on around him. Hence, he is perfectly willing to converse freely, and will readily answer any question that is put to him. He is very quick in his movements, and altogether presents a very good example of the sthenic form of insanity. When questioned as to the manner of his coming here, he gives, as you hear, quite a lively account of his being arrested and charged with being drunk and engaging in disorderly conduct, and he does not hesitate to say that he would become intoxicated again if he only had the chance.

On the other hand, the man next him, who is suffering from

MELANCHOLIA,

presents an example of perfect stolidity. This is the asthenic form of the disease, and you see at once the great difference between the two patients, in their whole appearance and all their actions, as well as the tones of voice when they speak. The first is always hopeful (which is, indeed, characteristic of mania), while the second is just the opposite of this, and is constantly in the depths of despair. He is completely wrapt up in his own misery, and is too much absorbed in himself to notice anything around him, unless it should happen to concern himself also. One of the great troubles of such subjects is, that they believe that everybody about them is trying to kill them or injure them in some way. Yet, notwithstanding this, it is very common for them to attempt to destroy their own lives. It is true, as he says, that this patient made such an attempt; and you will notice with what char-

acteristic indifference he speaks, and how low and sad are the tones of his voice. He cut his throat with the intention of committing suicide, and was sent to Bellevue Hospital for treatment. On his recovery he was pronounced insane, and sent to this institution. In my experience, almost every individual suffering from melancholia at one time or another either attempts suicide, or manifests a very strong desire to do so; and this is the case with a large proportion of all the patients who are admitted here, the attempted suicide usually being the immediate occasion of their being sent to the asylum. In the present instance there is the history of a hereditary taint of insanity; and this, I believe, would be found to be the case in almost all others if we could satisfactorily trace the origin of the disease.

There is another point which is exceedingly common in the history of insanity, and that is the element of intemperance. In both these cases—the one of mania, and the other of melancholia—it has been ascertained that there was prolonged addiction to the use of alcohol, and in this institution, where the patients belong almost exclusively to the lower classes, intemperance stands to a greater or less extent in a causal relation in from seventy-five to eighty per cent. of all cases that come under observation. The ordinary history in the case of many of our patients is, loss of work, partial starvation, resort to intoxication, then chronic alcoholism, and finally insanity.

The four principal points of interest about this case of melancholia, therefore, are the hereditary tendency, intemperance, the attempt to commit suicide, and the fact that the patient thinks that everybody about him is trying to injure him. He suffers from delirium, which is like a dream in the circumstance that he is always present himself, while all that happens in it is immediately connected with his own personality. He being thus the starting-point and centre of all, those who stand in the closest relationship to himself naturally become involved in what he imagines also; and hence such a patient is very apt to imagine that those nearest and dearest to him are trying to work his ruin. This shows the importance, in the treatment of cases of this kind, of promptly removing them from the surroundings to which they have been accustomed, and placing them in entirely different circumstances.

The third form of insanity to which I shall call your attention is

DEMENTIA.

This differs from the other two forms which have hitherto engaged our attention, in the fact that in this condition there is really a loss of mind. In the others it would not be proper to say that a patient has lost his mind, because it is often more active than in its normal state; although in a wrong direction. Dementia is usually a terminal form of mental disease, into which the patient drifts from some other variety. Hence it is ordinarily designated as secondary dementia. There is also another form, known as primary dementia; but this is comparatively rare. When it is met with, it is, as a rule, in young persons, and results from some abuse.

The characteristics of dementia are mainly physical. The subjects of it take no notice of what is going on around them; but many of them eat and sleep well, and enjoy excellent general health. Others, however, pay no attention to the ordinary wants of nature; while some have to be tended in every possible way, like infants, from the time that they awake in the morning until they are put to bed at night. In certain instances we find what is known as the "lay-figure condition," in which the patient will remain indefinitely in whatever position he may chance to be placed. The case which I now present to you as an example of dementia is not so far advanced as some others which we have in the institution; but still he exhibits, in a sufficiently well-marked manner, most of the prominent features of this form of insanity.

The fourth and last form, as I have mentioned, is

GENERAL PARESIS.

It is only within the last thirty years that it has been recognized at all in this country; but it has been known for a considerably longer period in Europe. In the United States it is found indeed principally upon the eastern sea-board, and in New York, I may say, is far more common than in any other locality. In this asylum, therefore, there is a larger proportion of patients suffering from it than in any other in the country. In the present course I shall pay special attention, then, to the subject of general paresis: *first*, because it is a recent disease; *secondly*, because it is one that is constantly increasing; and *thirdly*, because this hospital affords so many excellent examples of it.

As a general rule, patients suffering from it are happy and contented, and everything connected with them, according to their belief, is on the grandest possible scale. Thus, they have the highest opinion of themselves, and their minds dwell on ideas of vastness, as enormous wealth, immensity of space, and unlimited periods of time. There is one peculiarity in the physical manifestations of the disease that is very characteristic, viz., a difference in the size of the pupils; and so marked and constant is this point that the diagnosis may sometimes be almost entirely based upon it. Thus you will notice it in the patient to whom I now call your attention. He is a man of fine education and extensive reading, and he will himself give you some little account of his history and what he has accomplished. (The patient was about fifty years of age, and talked very fluently. During the course of his remarks he stated that no such man as Shakespeare had ever lived, but that he himself was really the author of the works attributed to him, and that it had taken him four hundred years to write them. His plan had been to collect the sayings of the wisest men that had ever lived, such as Solomon, Pliny, Solon, Diogenes, and Bacon, and by combining these he had been enabled to compose the immortal dramas known as those of Shakespeare. The profits from these works would by this time have amounted to many million dollars (to show which he entered into a somewhat abstruse calculation); but, unfortunately, he had been robbed by unscrupulous persons of all the vast sums due him. Still he had a firm belief that all the money would yet be refunded to him. When asked who he was, he said that he was the son of Pope Pius the Ninth, and was eighty years old; and when the inquiry was made how it could have taken him four hundred years to write Shakespeare when he was only eighty years of age, he explained that he had existed in a previous sphere for trillions of years. He mentioned, in addition, that he expected to live for many ages yet to come.)

But, to return to the subject proper of to-day's lecture—mania. This may be subdivided into three forms: acute, recurrent, and chronic.

ACUTE MANIA.

The first of these is characterized by a sudden attack, which lasts but a comparatively short time. On account of the extreme violence of the symptoms, it

must necessarily terminate quite quickly either in death or recovery.

RECURRENT MANIA.

In the second form we have acute attacks recurring from time to time, and these are apt to come on at shorter and shorter intervals, until the affection glides into chronic mania.

CHRONIC MANIA.

In this, the mania may be chronic from the commencement, or may have become changed from the recurrent to the chronic form, as just stated. In it there are not the same delusions as in acute mania; nor are its manifestations by any means so violent. We have here passion, arising from disease, and more prolonged in its action.

Acute mania has been divided into two forms—that with delirium, and that without delirium. It is probable, however, that the difference is more in the patients than in the disease itself. Those subjects which are young and active usually exhibit the first variety, and those older and more infirm, the second. The prominent feature in all acute mania is sleeplessness. In almost every instance of insanity there is a longer or shorter period of depression; but it is a fact that it is more brief in mania with delirium than in any other form of the disease, so that it may escape notice altogether. The attack usually comes on at night, and from the first there is an utter absence of sleep. The whole course of it must necessarily be a matter of a few days only, as the powers of the patient would inevitably succumb if it were prolonged to a greater period. Frequently such a patient will go entirely without food, because he is so busy with thinking of the subject that preys upon his mind that he cannot spare the time to attend to anything else.

ACUTE MANIA WITHOUT DELIRIUM

is neither so sudden in its onset nor so active in its manifestations. Consequently, the patient sleeps more, and is not so violent as in the first variety. Patients affected with this, it has been noted, often have most voracious appetites, while they are filthy in their habits, and seem to delight in destroying their clothing and whatever else they can lay their hands on. They are not only mischievous, however, but are also frequently treacherous in addition.

Where there is recurrent mania, the patient between the attacks is apparently quite well and rational, and the interval between them is sometimes as long as one or two years. A certain periodicity has often been noticed about the attacks. Thus, where they recur on an average once in a year, it is found that they make their appearance about the same season each year; and when they return more frequently they are apt to come every three months, for instance. In this form of the disease a hereditary taint is almost universally met with, and we naturally look for a fatal termination, after the affection has finally lapsed into chronic mania.

Chronic mania, as has previously been stated, usually follows some other form of insanity. Ordinarily this is acute mania; but in exceptional instances it results from melancholia and other varieties. According to the laws of this State, that is called acute insanity which has continued for less than one year; while chronic insanity is that which has existed for more than one year. Personally, however, I prefer another than this division, and that is one which is based on the symptoms. In chronic insanity there are by no means as many delusions as in acute. As a general rule, indeed, the patient gradually settles down into two or three delusions, and perhaps but a single one. Hence arises the idea of monomania; but I must say that I do not believe in this at all. I have never yet seen a case in which the patient was really insane upon only one point, and perfectly sane in regard to all others. The case which I now show you is one of acute mania which has improved very much of late, and this next one is an instance of recurrent mania; while all the others at present before you belong to the form of chronic mania. In them the delusions have become considerably narrowed down, and you notice the marked change that has taken place in their features. The hair even has changed its character; being now straight and wiry, and having assumed what is known as the "electric condition." In many of these patients we find a certain incongruity about the countenance, one part of it expressing one emotion, and another, another, which is due to a lack of unity in the action of the various facial muscles. It is a curious fact that while each patient is unconscious of his own infirmity, he believes that the others are insane, and, thinking himself perfectly rational, will often ridicule their actions. Such patients are usually fond of ornaments, and will decorate themselves with scraps of bright colored paper or anything else that comes in their way. There is one prominent characteristic that is met with in them all, and with which you cannot fail to be struck on entering into conversation with them, and that is, the utter incoherence of their language. (The last patient presented was one of chronic mania, in which the distinguishing feature was a passion for inventing so-called astronomical instruments, over which the man would spend a vast amount of time and labor, involving apparently the most extensive calculations. After this the gentlemen present were invited into the wards by Dr. Macdonald, where they had an opportunity of personally conversing with patients affected with chronic mania. Among these we noticed one whose chief delusion was, that he was a full brass band of over a hundred pieces, and whom it afforded great delight to march at the head of a squad of his companions; while another imagined himself an opera singer of world-wide reputation.)

Original Communications.

STATE MEDICINE.

By HENRY H. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF THE DISEASES OF THE NERVOUS SYSTEM, RUSH MEDICAL COLLEGE, CHICAGO.

To the legitimate work of health boards and of sanitary officials no one can make the slightest reasonable objection. Remarking the fact, however, that our sanitary authorities are continually advocating and undertaking measures which conflict with the ethical ideas of ordinary plain people, I have sought to ascertain whether there might be in the hidden essence of things any reason for abjuration of the moral law in behalf of public health. I find, however, that the men whose ideas are most esteemed by the progressive portion of mankind—the philosophers who lead enlightened thought—have for the most part placed themselves on record in downright opposition to many of the pet schemes of our enthusiastic friends. These far seeing thinkers continually convict our philanthropists of confusing things which should be kept sep-ar-

ate—as, for example, the private sphere of individual energy and the public domain of communal activity, the duties of every-day life and the conduct of emergencies, the treatment of endemic diseases and the management of imported epidemics, etc., etc. For want of clear notions on these and other kindred topics there is an immense lack of well-considered effort, joined with much blind swinging of clubs in the dark, to the great discredit of all who have occasion to concern themselves with matters pertaining to the public health. I have, therefore, thought it worth while to outline a scheme of conduct which shall not so glaringly contradict the fundamental laws of utility and of right, to which so many seem indifferent.

It is useless to attempt a discussion of the duties of the State in reference to the health of its subjects, without first ascertaining clearly the province of government, and the limits beyond which its functions must not be exercised, if the welfare of the community is to be kept in view. Different theories of government are clamorous for recognition, and it is necessary to have a decided opinion regarding the relative merits of these rival theories, unless we are content to remain in doubt and darkness concerning the results of the differing modes of action which will follow our choice between opposing ideas. First and oldest, is the theory of individual government. Every man a law to himself. This is the method of a perfect state of existence, and does indeed express the highest ideal at which humanity can aim. This in its lowest form is the law of the inferior creation, and it is sufficient for the perfect guidance of all creatures and things which are destitute of will and are without freedom. The unerring movements of such things are always obedient to the necessities of their structure and physical nature, consequently they can never go wrong. But when man is set free to choose between the various paths which lie before him, though he ought always to move with invariable obedience to law, he continually fails, through ignorance or through wilfulness, to obey every law of the universe. This disposition becomes more apparent as he is brought in contact with his fellows; and the experience of all ages and of all nations proves that man cannot safely be left in all things to his own guidance: he must have some kind of a governor to keep him out of conflict with his fellow-men.

Emerging from this universal necessity we discover the development of family government and its expansion into patriarchal or tribal dominion. Here the will of the patriarch gives law to the tribe. It is a supreme, personal, human, and therefore capricious authority. It is capable of great efficiency, and has often inspired great respect, even enthusiasm, among its subjects. But, owing to the weakness of human nature, such control cannot bear with any degree of uniformity upon the people, and, as the tribe expands into a nation, the central authority either ceases to restrain or else it ripens into an arbitrary despotism. Of this form of government the world has shown and can still exhibit many well-perfected examples. The intelligence with which such a form of government may be administered is of course exceedingly variable, running all the way down the scale from the empire of Russia to the kingdom of the Zulus; but the same theory inspires each administration, namely, the doctrine of the right of the sovereign power to dictate in every particular the behavior of its subjects. Nor is this doctrine confined to the civil power. It is the central thought of the majority of religious systems; it is the belief of the priest who presumes to guide the conscience of his disciple, prescribing for every man what he shall do to be saved, and what he shall not do if he would avoid penance and punishment at the hands of the Church, in this world as well as in the next. By a natural affinity these kindred powers in Church and State have drawn together, and, supporting each other, have ruled the world most beautifully—in theory. With what success in fact, history abundantly shows.

Against this paramount sovereignty there have been, however, in all ages, attempts at revolt. Only slaves do not resent such interference with the right of private judgment and independent action. Accordingly, with the progress of the race, and with the evolution of high moral sensibilities among the people, came a spirit of revolt. For more than three hundred years the soil of Europe has been the scene of armed protest against the presumption of the Government in State and Church to regulate the life of the subject. This conflict, though greatly prolonged and hindered from the attainment of its full fruition by the continual abandonment of the field on the part of the most enlightened portion of the people who seek liberty in this favored country, has gone on with varying degrees of success; but through the smoke of battle shines the angel of Freedom, whose form is becoming every day more clearly revealed.

Upon the American continent the French colony of Canada and the English colonies in New England have displayed the finest possible contrast between the rival institutions of Despotism and of Freedom. The English colonists were rebels against the tyranny of their government. Finding no peace at home, they exiled themselves beyond the reach of the laws which they could not and would not obey. They governed themselves, though in no very ideal manner, still in a way that was far removed from the irritating intrusiveness of the government from which they had escaped. The consequence was, a vigorous and manly growth, which has produced the happiest race the world has ever seen.

In Canada everything was ordered after a different plan. The king was supreme. He planted the colony. He prescribed its laws, and regulated its minutest concerns. Only true believers in the royal creed might set foot upon that Christian soil. With every cargo of colonists must sail a religious inspector—a priest—who should convert or drown all heretics before they reached the St. Lawrence. By the side of the royal Governor stood the Bishop; and their decrees must be obeyed. Every one must know his place and do his appointed work.

"You shall hold the first place at the Council. This man shall march at the head of every procession: that man shall bring up the rear. Jacques shall catch fish, but he may sell them only to the royal agent at Tadoussac or at Quebec. Simon shall have so many acres of land for his corn, and shall be hanged if he goes a hunting in the woods. Jean shall be a soldier, and shall fire his gun and roll the drum when I take the sacrament in the cathedral church. No one but the royal monopolist shall buy furs from the Indians, and he shall buy at the royal price all that are offered for sale. All must get married and have children—lots of them—for the country needs population. Bad women shall go back to France, for we must all confess regularly to the priest and be good. Fear God, and honor the king!"

Thus the little colony was managed. Everything was ordered in accordance with the will of a sovereign who exhibited the utmost interest in his children, whom he had commissioned to occupy the American continent for the glory of God and the welfare of

France. Strange to say, the result was an utter failure. Taught to rely upon the king for everything, the colonists would not help themselves. Hampered by a thousand petty restrictions, the Indian trade, which was the life of the colony, found its way to Albany and to Boston. Annoyed by the priests, and educated to believe in the efficacy of the sacraments of the church as a final expiation of all sins, the more energetic youth of the colony, unterrified by the penalties which were levelled at them by the royal mandate, threw off all restraint, and betook themselves to the woods, where they surpassed the savages in the license of their lives. When at length the rival powers of France and of England grappled in conflict for the possession of the continent, but one result was possible, and the institutions of freedom emerged victorious from the trial.

History is rich in similar illustrations of the blighting effects of paternal government. The annals of Ireland are one long commentary upon the unnumbered woes which are caused by the intrusion of government into the private life of the citizen. The records of the Romish Inquisition exhibit the frightful calamities which follow every attempt on the part of even the best of men to regulate the belief and the conduct of their fellow-men. And yet man cannot dispense with government. Some form of control must be devised. A central power with definite functions and limited prerogative is what is needed to secure the equal rights of every citizen. Such security insures the right of every one to perfect liberty just as far as that liberty can exist without encroachment upon the similar right of every other individual. Good government, therefore, consists in the preservation of an exact equilibrium in the relations of man and man as members of a community. Government ceases to be good, and becomes an evil, just as soon as it transcends this function and undertakes to regulate the private life of the individual.

Leaving, now, the realm of abstract thought, let us descend again to particulars which may illustrate the foregoing doctrine. The government of a city promotes the welfare of its citizens when it provides a police force to keep the peace and to protect the lives and property of its citizens; when it raises money by taxation to maintain courts of law, to extinguish fires, to clean the streets, to abate public nuisances, and to provide against such emergencies as may occasionally threaten the welfare of the community. Limiting itself thus to a control of the public life of citizens, the government—whether monarchical, oligarchical, or democratic, it matters not—will secure for all the highest degree of happiness and prosperity. When, on the contrary, the government undertakes to dictate concerning the private life and relations of citizens, the most democratically fashioned institutions may become instruments of a tyranny unsurpassed by that of the Grand Turk himself.

Keeping these premises clearly in view, it becomes perfectly easy to decide how far the State may concern itself with what is called the public health. Over all highways, by land or by sea, over the public grounds and the public buildings of the commonwealth the jurisdiction of the government is perfectly clear. The common air and the common water are left to the control of the State, which, therefore, has the right to interfere with all artificial nuisances which may infringe upon the universal right of citizens to enjoy such air and such water in their native purity. Buildings, like churches and theatres, which are used by men in their public association with each other, may justly be controlled by the State in all that is needful for the security of citizens. But the apartments of hotels and of tenement-houses, and the ordinary residences of people are used by men in their private capacity, and therefore may not be justly invaded by the State. Honest private citizens in their own homes should be perfectly secure against any intrusion on the part of the government. In every well-ordered State there should be a medical officer to supervise the public relations of citizens, and to act as the adviser of the government in sanitary affairs. It should be his duty to prevent all damage to the health of citizens from the condition and use of the public property of the commonwealth. He should be prepared to act intelligently and promptly in all those sudden emergencies to which the ordinary existence of the community cannot be readily adjusted—such as an invasion by cholera, or yellow fever, or the plague. But it should be clearly understood that *for all the ordinary conditions and incidents of the life of a commonwealth the ordinary resources of the community are sufficient.* A State, a city, a family, will be as healthy as its individual members know how and can afford to be. Sanitary officials must cease their efforts when the line which divides the public life of the citizen from his private life has been reached. Otherwise, their control becomes at once intrusive, vexatious, and productive of evils greater than those which they seek to prevent. The old doctrine that every man's house is his castle is as true in matters pertaining to health as it is in affairs of politics or of religion. Government has no more right to compel a man to make his home healthy than it has to compel him to make his home religious. There was a time when it was thought right to subject men to fines, imprisonment, torture, and death, if they would not regulate their belief and their private life in accordance with the dominant creed of the State. But we now see clearly that such severity is not only wrong, but that it is subversive of the very object in view. And yet, in spite of this experience, there is a class of men—it is to be regretted that some of them are called physicians—who are clamoring for the revival, so far as sanitary matters are concerned, of those inquisitorial powers which made civil and religious authority so hateful to our ancestors. Strange as it may at first sight seem, it is true that in one of the freest countries in the world some of the descendants of the men who by force of arms wrested liberty from the tyrants of the Old World, are now the most reckless assailants of the liberties which were so painfully secured. This fact, however, is only another illustration of the working of natural laws which are beyond the control of human power. Just as disease invigorates the race by weeding it of its weakly members, and as persecution purifies the church, so tyranny stimulates the spirit of freedom. When, by a triumphant outburst of liberal principles, that irritant has been removed, the jealousy with which individual rights have been defended soon languishes, and a few generations suffice to produce a feeling of indifferent security which once more favors all the insidious approaches of the worst forms of despotism. It matters little what the form of government may be. When that vigilance, which is said to be the price of liberty, has once relaxed, the most democratic institutions will lend themselves as readily as the most aristocratic to the work of subverting the liberties of the people. Facts like these should make us cautious and suspicious of the new-fangled methods which certain enthusiasts are so noisily urging upon the public under the guise of philanthropy and zeal for the welfare of the race. In an eastern city, for example, we are told (*Chicago*

Med. Jour. and Ex., May, 1879, p. 515) that, if he could, the chief medical officer of the city "would have every house in which scarlet fever existed guarded by a policeman, whose duty it should be to see that no one but the physician entered or left it until quarantine was removed. Supplies of food would be left at the door." Turkish ignorance and Russian barbarism could not do better! Ignorance I call this, because of its total blindness to the great fact that such endemic diseases are the beneficent agents of that natural selection by which the vigor of the race is maintained. We hear a great deal about the higher education which is claimed as the peculiar attribute of the Athens of America. If that is its legitimate outcome, the less we have of such higher education the better off we shall be. In fact, however, such notions are not the product of high education; they are the result of superficial knowledge and of a failure to comprehend the final causes of disease. They are survivals of mediæval barbarism, and they will vanish like the morning mist before the advance of real education in the realm of natural and social sciences.

We shall, in this connection, find it worth while to consider the results of the method of dealing with scarlet fever by the government, which has been attempted in certain cities; and we speak of scarlet fever because it is the most familiar example of an endemic infective disease which exists in our communities. Physicians are required to report every case to the local health officer, who then undertakes to "stamp out" the disease by nailing a placard upon the infected house. To the utter astonishment of the pin-hole philanthropists, who kindly introduced this novelty, it is received with the greatest discontent by the majority of citizens. Many causes combine to produce this feeling, but chiefest and best of them all is the deep and, let us hope, ineradicable sentiment of hostility to that intrusion by the State into the private life of the citizen, of which the placard thus affixed is the detested symbol. It is not so much the thing itself as the thing it signifies, which is so detestable. The failure to effect any good results by such intrusion is, moreover, admirably illustrated by the same experiment. When people find that the misfortune of illness is likely to bring upon them the additional evil of governmental invasion of their domestic affairs, they are slow to invoke the aid of the physician who finds himself compelled, even against his will, to act as the agent of the State. He, too, when finally summoned, often acts with deliberation. He waits, to be sure of his diagnosis. He transmits the obligatory message through the most dilatory channels. Oftentimes he yields to the solicitation of his patron, and without compunction violates a law which his judgment condemns. Nor is this wrong, for the lower law must always yield to the higher. The occurrence of disease is thus concealed, and the chances of its unsuspected propagation are increased. Consequently the statistics of localities where this intrusive method prevails have disclosed the complete failure of every attempt to limit scarlet fever by State intervention. Stringent measures invariably defeat themselves. This fact, however, will only be regretted by those who have not yet learned to comprehend the meaning of disease and its relation to the evolution of the human race. The British Medical Association, through its recent action (*Brit. Med. Jour.*, Aug. 16, 1879, p. 256) in opposition to the demand of certain local authorities for compulsory registration of infectious diseases, has exhibited a comprehension of the situation worthy of imitation throughout the civilized world.

With the results of such official intrusion let us now contrast the outcome of an ideal management which has learned to respect the division between the public life and the private relations of the citizen, and which recognizes the sacred duty of the State to abstain from interference with those private relations. Under such administration there is no fear of official intermeddling. The occurrence of infectious disease is at once confessed by every family, and the neighbors are put on their guard. Advised by their physician, they will generally consent to place a notice of sickness at their door. Stimulated by a proper fee, paid by the commonwealth, the attending physician at once forwards, by the hand of the householder, who is thus made the responsible party, a notice to the health officer, who passes on the notification to the public school, from which all infected children are thus easily excluded without an opportunity for the expression of the slightest feeling of resentment against the authorities. In this way the public health can be much more effectually protected than is possible under the intrusive system.

At this point in the argument we find ourselves confronted by the almost unanimous contradiction of the official class. They fancy that such lenient measures would be inefficient. They model their conduct after the traditions of despotic governments in Europe, and insist upon the superiority of the results of such methods. It is perfectly natural that they should thus advocate everything which tends to magnify official position and function. Men love power, and seek eagerly for justification of its use. Right here is one of the difficulties with which civilization is obliged to contend. A large proportion of the officers to whom the care of the public health has been confided are men whose only training has been gained in the camp and on the field of battle. They are, too often, men whose years have stiffened their prejudices into a rigidity which incapacitates them for rational discussion of social problems. With little experience of civil life and of the sympathies which should grow out of daily intercourse with the sick, they are peculiarly liable to go astray in the wake of any enthusiast who may chance to stir the sluggish current of the official pulse; and they rarely seek to correct the extravagances of dominant and fashionable hypotheses by consultation with the great mass of practical workers in the medical profession. Too many of their public and official utterances are marked by utter indifference to the constitutional rights of the citizen, and seem only to "breathe out threatenings and slaughter" against all who venture to question their wisdom. It is the exhibition of traits like these that has divorced so many of our prominent sanitarians and philanthropists from the sympathies of the majority of the medical profession throughout the country—a result which cannot be too greatly deplored. It, therefore, cannot be wise to set up such a class as judges of what is right and expedient in the management of the public health. They may appear as advocates at the bar of public opinion, but the experience and thought of an enlightened world must constitute the judge. Such experience shows that every intrusion of the State into the private life of the citizen, whether in the realm of politics, or religion, or health, invariably results in the production of evils greater than those which are marked for suppression. Consider the fate of every attempt to annul the evils of prostitution by a rigid state of inspection of harlots. Though disease may for a brief period seem to diminish, the laxity of manners and the reckless disregard of consequences which are directly fostered by the State, whenever it

thus undertakes to protect its citizens against their own ignorance and folly, soon suffice to swell the volume of disaster beyond its original proportions. This fact is now pretty generally recognized in the adjustment of the relations of the State to the matter of prostitution—a result which we owe to the attention which it has received from the ablest minds in the community. Could the same ability be thrown into the discussion of the relations of the State to other communicable diseases, we should soon be rescued from all fear of the despotic measures which ordinary sanitarians seem determined to saddle upon us.

The adoption of the principles which have now been set forth will not in the least conflict with the assumption and exercise of extraordinary powers by the State in the presence of extraordinary emergencies. In matters pertaining to such emergencies the old maxim, *inter arma silent leges*—military necessity knows no law—is perfectly true. But the forms of pestilential invasion to which a given community is occasionally liable are well known, and are few in number. During the prevalence of cholera, or yellow fever, or the plague, the State may properly display an energy commensurate with the virulence of the enemy, just as the army of the nation should be used against foreign enemies, or in case of insurrections; but the preservation of domestic tranquillity should be left to the ordinary police officials of the country. But, as in time of war we urge our generals to actions which would be criminal in time of peace, so in times of epidemic invasion our sanitary officials may be suffered to enjoy a license which they may not rightfully claim during the ordinary course of events. We need in every commonwealth an enlightened official who shall supervise the *public* health, and who shall be prepared to take the lead in every sudden and overwhelming emergency, but who shall always recognize the fact that by careful abstinence from interference with the *private* health of the citizen he can best serve the highest interests of the community.

Keeping these principles in view, our new State boards of health should find no difficulty in defining their powers and their functions. They may rightfully provide for quarantine upon the borders. They may regulate thoroughfares and public places throughout the commonwealth. They may cause the destruction of diseased animals and tainted provisions which have been made the property of the State; but they have no right to make away with such things until they have ceased to be the property of private individuals. They may—if such a course receives the sanction of their professional brethren—promulgate and enforce the educational conditions in accordance with which physicians shall be admitted to the practice of medicine; for these matters concern the public life and intercourse of citizens. But the relation between a physician and his patient is domestic and private; consequently, so long as that relation involves nothing criminal, no public official has the slightest right to invade that relation. No matter how unskilful or unprincipled the doctor, no matter how foolish the patient, it is their own private affair, and they alone should be responsible for the result. If either party is dissatisfied with the other, there are courts of law in which they may adjust their differences. Beyond affording such facilities, the State has no right to interfere.

Whether a board of health may undertake the collection of information regarding the vital statistics, or the sanitary topography of the country, is a question for the legislature to decide. If the State can afford to pay for the collection and circulation of such information, there need be no objection to the effort. But if a legislature cannot find means to defray the expenses of such work, it should not be done, and it could not be attempted without immediate and direct invasion of the private rights of citizens. There is no more justice in compelling physicians to make such returns than there would be in forcing them to see that every dying man left his will in proper form.

It is, of course, too much to expect that the doctrines here advanced will be acceptable to those who have abandoned themselves more or less completely to socialist theories of the function of government. The political institutions of Europe are for the most part based upon such theories, the only question about them being whether the commune shall be administered for the benefit of aristocrats, or for the emolument of day-laborers. The taint of such doctrines is infecting much of our own hasty legislation, and will result in unnumbered future evils unless it is met with courageous determination. For this reason I have thus sought to direct attention to the great principles upon which every free government must depend.

AN INTERESTING OBSTETRIC CASE—THE LIVER PRESENTING.

By A. L. SWEET, M.D.,

SOUTHOLD, N. Y.

I WAS called, October 12th, to see Mrs. H——, a large, masculine Irishwoman, who was supposed to be in labor. The nurses in attendance assured me that the waters had broken some time before. A short time after entering the house I made an examination, and, to my surprise, found a soft, spongy mass occupying the vagina. It was about four inches long, irregular in shape, with an average diameter of perhaps one and a half inches, and so fragile that I could easily tear it with my fingers. I at first concluded that I had a case of placenta previa, and that a part of the placenta had been extruded from the os, although the feel was not exactly like that of placental tissue, and there was no hemorrhage. I was still further mystified when, upon passing my finger higher up, I could find no place where the supposed placenta was attached to the uterus. I could sweep my finger clean around it, and, in making traction on it, it seemed to be firmly identified with the uterus. I also found that the breech was presenting. Being very much in the fog as to the nature of the case, I predicted a still-birth and administered some ergot (as the pains had nearly died out), and awaited the course of events. In due time the child was born, and, after its birth, I found that what I had supposed to be the placenta was the *liver of the child*. The fœtus was a small one, justifying the opinion of the mother that she was in labor before her time—was dead, and was a monstrosity. The lower part of the pelvis was undeveloped, being covered only with a thin membrane, and upon the first contractions of the uterus had allowed the contents of the abdominal cavity to escape; so, upon the birth of the child, the liver and intestines were all out of the body. The head and upper extremities were perfect, but the legs were joined to the left side of the trunk at a right angle. Upon the right thigh, about three inches below the trochanter major, was an excrescence about half an inch in length, which I suppose to have been a rudimentary penis, as there were no other signs of sex to be seen anywhere else. There was an anus at the usual place, and a short portion of a rectum. The woman is the mother of three healthy children.

A CASE OF EPITHELIOMA OF THE VULVA SUCCEEDING A LONG STANDING PRURITUS—OPERATION—CURE.

By ELIZABETH M. CUSHIER, M D.,

NEW YORK.

The following case presents, it is believed, more than one point of interest:

1st. In the development of an epithelioma in a comparatively rare situation.

2d. In the possible relation of cause and effect between it and the pre-existing pruritus, whether we regard the neoplasm as the result either of injury done to the tissues by treatment of the pruritus, or to the mechanical irritation resorted to in order to allay it. The patient was first seen in Dec., 1878, and gave the following history: Mrs. D——, aged 60, mother of three children. Menstruation ceased thirteen years since. Her health had always been good up to the time when present history begins. Ten years since the patient began to complain of itching of the vulva. This continued to be more or less troublesome, without materially interfering with her health, until about two years ago, when it became much more severe, depriving her of rest at night. During the past six months she has had more frequent attacks of the pruritus during the day, and at night has been obliged to obtain what rest she could by sitting up in an easy-chair, as the itching became intolerable upon going to bed. She complains also of a soreness of the vulva, which she dates from an application made some months previously. She is extremely nervous, trembles and cries when spoken to, and is evidently suffering from loss of sleep. Her appetite has failed, and her strength very much diminished.

The patient has been under treatment during the past two years without benefit. She says she was seen some months since, in consultation with her own physician, by an eminent gynæcologist of this city, at which time the vulva was "burned."

The patient was taking, when first seen, morphia powders, but without much relief, as she awakened constantly from the slight dozing which they produced. She was also using a lotion containing carbolic acid. There was no history of leucorrhœa in the case. Upon examining the vulva, both outer and inner surfaces of the labia were found to be pale and glazed. The nymphæ were hypertrophied, and on the inner surface of the right one there was an ulcerated spot about one-third of an inch in diameter, which was covered with pale granulations. The vagina was more healthy in color, and its tissues apparently normal. The uterus was atrophied. The membrane of cervix was of a deeper color than the vaginal membrane, and at the entrance to the cervical canal there was a very slight erosion. A small amount of thin yellow fluid escaped from the cervix. The canal was sensitive to the passage of the probe.

The itching was referred to the entire vulva, but more especially to the region of the clitoris and nymphæ. An examination of the urine for sugar gave normal results. The case seemed a very unpromising one, and was undertaken with but slight hope of success. The treatment was in brief as follows: Locally, applications twice a week to cervical canal, of acid carbol. and glyc., āā. Vag. injections of a one per cent. sol. of acid carbol. night and morning. Ungt. aconitiæ to be applied to vulva when itching became severe. At the point of ulceration bis. subnit. was used.

The patient was also given potas. brom., gr. xv.; fl. ext. cannabis ind., ♏ xv.; tr. opii deodorat., ♏ vii., at bedtime, and this was repeated, when necessary, during the night. At the expiration of a week the improvement was sufficient to be very encouraging. The patient was sleeping several hours during the night, and feeling quite rested, although she had not yet ventured to lie in bed. During her waking hours she also suffered much less. At the end of the second week she reported herself as being able to sleep in bed, and her appetite was improving. From this time there was a gradual diminution of the puritus, and at the end of three months it was comparatively slight. Indeed, the principal symptom now complained of was the soreness and pain at the ulcerated point above mentioned. This had resisted all efforts to heal. It had increased in size, and assumed a different appearance. Its surface was elevated above the mucous membrane, and showed distinct papillary projections, while the surrounding tissue had become hardened and infiltrated. There could now be no doubt that an epithelioma had developed at this point, and Dr. Emily Blackwell, who was asked at this time to see the patient, concurred in the advisability of an immediate operation for its removal. It was six weeks, however, before the patient could be persuaded to submit to such operation, and by this time the growth had increased to the size of a large hazel-nut. It occupied the upper half of the inner surface of the right nympha, extending very nearly to the base of the clitoris, and to the base of the nympha of the opposite side. The indurated portion could be lifted quite away from the underlying tissue. There was no enlargement of the inguinal glands. It was evident that the growth was limited to the right nympha, but on account of its close proximity to the left nympha and the clitoris, it was decided to remove both of the latter. The operation consisted, therefore, in the removal of the clitoris and both lesser labia, and was accomplished by lifting these structures well up from the tissues beneath and separating with scissors. The hemorrhage was not difficult to control.

The surface remaining after the removal of the above parts presented three denuded angles: one above, over the site of the clitoris, and one on each side, corresponding to the nymphæ. These were completely covered in by uniting the edges of the tissues bordering them, and for this purpose five silk sutures were introduced on each side and four above. The wound healed throughout by direct union.

From the time of the operation the patient was able to sleep without anodynes, and no complaint was made of the pruritus, while the vulva assumed a more natural appearance, becoming softer and of a normal color. When last seen, some months after the operation, the condition of the patient, both general and local, was very satisfactory, and so completely had all evidence of an operation disappeared, that the absence of the removed structures might have been supposed to be congenital.

Upon microscopic examination of the growth I found the following: papillæ composed of masses of large multiform epithelial cells, also the so-called thorny cells in considerable number. These last were either isolated or in their characteristic groups of from two to several, held firmly together by their serrated edges. There were also present the well known "pearls" which are so frequently found in epithelial new formations. The growth presented, indeed, all the characters of a typical epithelioma.

In the very few cases of malignant disease of the vulva which have been reported, pruritus has been generally mentioned as a symptom. But it still re-

mains doubtful, in at least some of the cases, whether the pruritus preceded the advent of the growth or was excited by it. Mayer,* in reporting nine cases which came under his personal observation, relates one which closely resembles the above: in which the pruritus had existed for years, resisting all treatment, and becoming gradually worse before the cancroid developed which led ultimately to a fatal termination. In most of Mayer's cases the growth existed at the time when the patient came under observation, while the pruritus only dated from a few months, and may have been, therefore, only a symptom of the developing neoplasm.

There can be no doubt, however, that irritation of some kind, here as in other localities, may play an important part in the causation of these new formations. Of the nine cases reported, as above mentioned, by Mayer, there is given a detailed account of five of them, in four of which there had been irritation or injury preceding the appearance of the cancroid, and bearing an apparently close relation to it.

In one of these cases the beginning of the affection dates from an injury done to the tissues by a badly adjusted strap attached to a hernial truss. In another, the patient, during a long illness of her husband, had sat upon the hard edge of his bedstead, often for hours at a time. At the point where pressure had been thus made upon the right labium and nates an epithelioma developed. In two cases there was, as above mentioned, the previously long existing pruritus of the part. In the fifth case it remained doubtful as to the pruritus being antecedent or coincident with the malignant growth.

In regard to the treatment of the pruritus in the case here reported, three questions are suggested.

First.—As to the influence of the aconitiæ, it is certain that from the date of its employment the pruritus very decidedly diminished.

Second.—As experience has shown that all local applications in these cases so frequently fail in producing the desired effect, at least more than temporarily, is it not probable that the diminution of the pruritus was due principally to the modification of the nutrition of the part as a result of the development of the neoplasm?

Third.—May not also the removal of so large a portion of the mucous surface as is included in excision of the nymphæ and clitoris, and the still further changes in nutrition due to the healing of the wound after the operation, have aided very materially in the final cure of the affection?

Vivisection.—The violent agitation against vivisection which has been going on in England, and which even called out an address in its defence, at the meeting of the British Medical Association, has reached New York. Mr. Bergh has appeared in print several times, and has not only denounced the vivisecting physiologists of the present day, but is extremely severe on Galen and Harvey. Magendie he considers to have been pretty nearly the worst man that ever lived.

In the clerk's office of the College of Physicians and Surgeons there used to hang a drawing representing, we believe, the interesting process of establishing a gastric fistula; Mr. Bergh, in deep distress, being seated in the background. Underneath ran the legend:

"[illegible]
Science, or [illegible]."

* Archiv für path. Anat., 35, 1866. Monatsschrift f. Geburtsk. u. Frauenkrankheiten, 1868, 31, 32.

Progress of Medical Science.

Porro's Operation: Cæsarean Section, with Removal of the Uterus and Ovaries.—In the hope of diminishing the mortality after Cæsarean section, Porro, of Pavia, in May, 1876, proposed and practised successfully the ablation of the uterus and ovaries after the removal of the child. The operation was favorably received by the Continental gynecologists, and Fovier, of Paris, in a recent article, stated that it had been, as far as he had been able to learn, performed thirty-three times, with the result of saving more than half of the mothers. To these cases may now be added two more, which were reported to the *Académie de Médecine*, on July 29th, by M. Tarnier. In the first case, the operation was performed seven days after premature rupture of the membranes at the eighth month, and four days after the death of the child. The child and placenta were putrid, and the mother died three days after the operation, of putrid infection. Delivery per vias naturales had been rendered impossible by the presence of a fibrous tumor, which filled the excavation. The second case was successful, and M. Tarnier, in presenting the patient to the Academy, remarked that the case was especially interesting, because the Cæsarean operation had not been successfully performed in Paris since 1787. In this case the operation was rendered necessary by rachitic deformity of the pelvis, which was so marked that cephalotripsy was impossible. The operation was performed the day the patient entered the *Maternité*, but the membranes had ruptured three days before, and the child had been dead two days. The cervix was not dilated. After incision of the abdominal walls and uterus and removal of the child, the uterus and ovaries were drawn out of the wound and a Cintrac's serre-nœud was applied at the junction of the body with the cervix; above this serre-nœud, after the uterus and ovaries had been cut off, a transverse pin was placed, which was itself secured by a second wire ligature. The patient made an excellent recovery, the maximum temperature in the axilla being only 101.3° F. The wound was treated on the strictest antiseptic plan, and M. Tarnier is inclined to ascribe the successful result largely to this fact. He believes that the operation is not only justifiable, but that it is destined to take a front rank in surgery. It seems to him superior to simple Cæsarean section, because it does away with two of the dangers of the latter, viz., uterine hemorrhage, and peritonitis from escape of the lochia into the peritoneum. These elements of increased safety will more than counterbalance the objection that the operation entails sterility on the patients. M. Tarnier dwelt urgently on the importance of having recourse to the operation early in appropriate cases, for the sake both of the child and the mother. He believed he was the first surgeon to perform Porro's operation in France, but this claim has been challenged by M. A. Fochier, surgeon-in-chief of the *Charité*, who states that he performed the operation in that hospital three weeks before the date of Tarnier's first operation. Dr. Storer, an American surgeon, is credited with having performed the first operation of this kind in 1868. The issue was fatal.—*Lyon Médical*, Aug. 17, 1879; *La France Médicale*, Aug. 2, 1879.

Persistence of the Canal of Müller.—In the March and April number of the *Journal de l'Anatomie et de la Physiologie*, M. Rémy describes the post-

mortem appearances seen in the genito-urinary apparatus of a child who died in the Hôpital des Enfants, Paris, of cystitis and suppurating kidneys, the result of chronic retention of urine. In front of the right ureter another canal was found. It began as a *cul-de-sac* among a mass of little cysts close to the suprarenal capsule, and passed downward under the fundus of the bladder, opening into the utricle of the prostate by an aperture which would admit a large probe. Passing between the muscular and mucous coats of the bladder for some distance before reaching the utricle, it raised the mucous membrane close to the neck of the bladder to such an extent as clearly to have been the cause of fatal retention of urine. This abnormal canal was evidently Müller's duct, and the cysts at its upper end represented the remnants of the Wolffian body. As the duct opened into the utricle, the homology of that depression to the female uterus is practically confirmed by this case.

On the other hand, Waldeyer's theory that the hydatid of Morgagni represents a remnant of Müller's duct, is shaken by the fact that a well-formed hydatid existed on the right testicle. The theory, further, that the little body called the "organ of Giraldès" consists of the remnants of the Wolffian body, is destroyed by the fact that in this case both this organ and the Wolffian body were found separately.

The case thus, apart from its pathological interest, throws light upon three points in the development of the human body.

Excremental Diseases.—Under this title Mr. Geo. E. Waring, Jr., gives a very clear account of the dangers incident to the present methods of removing human excreta. Beginning with the ordinary city house, he shows that, even when perfectly plumbed after the usual methods, there is always a danger lurking in the house drainage-pipes. These pipes are never sufficiently flushed to keep them clean and free from excrement; they have no free communication with the air; consequently they generate and will always contain noxious gases and low organisms. These are kept from entering the house itself chiefly by a few inches of water, which is liable to be siphoned away, and which, in any event, is able to transmit the foul gases and nourish the noxious germs. Human excrement, therefore, is not at present safely removed from our houses by the methods now in vogue. To remedy this, he suggests that the house-drain have a free circulation of air through it, and that the water-seal traps be prevented from contact with the air of the drain.

The dangers of ordinary street-sewers are less than those from the individual house-pipes, because there is in them a constant current of water and frequent changes of air. Nevertheless, they are far from safe.

The best final disposal of the excrement is a question yet to be decided upon.

There are now essentially two methods, that of emptying it into large bodies of moving water, and that of distributing it upon the soil. The latter is much the most expensive in most cases, and is not always practicable.

The whole system of the disposition of sewage has so many dangers and defects that it will eventually have to be changed—a change, however, for which neither public opinion nor the public purse is yet ready. In the address on hygiene at the recent meeting of the British Medical Association, Dr. Fergus attributed the increase of diarrhœal diseases and the failure to diminish enteric fever and diphtheria in the past decade, to the present method of carrying off excrement, garbage, etc., by means of water, which, he insisted, was a dangerous agent for the purpose. It is considered certain that a change in our present sewerage methods must eventually be made, and it is urged by Mr. Waring that physicians endeavor to encourage and educate people to such a movement.—*Boston Med. and Surg. Jour.*, Aug. 21, 1879.

An Operative Method to Combat Commencing Pyæmia.—H. Kraussold, in v. Langenbeck's Archives (vol. xxii., p. 965), relates the case of a patient at the Erlangen Clinic, whose leg was amputated just above the knee-joint, on account of a badly united fracture, complicated with an aneurism of the posterior tibial artery. The operation was followed by repeated and alarming hemorrhages, and the manipulations necessary to control them destroyed the antiseptic precautions, so that on the fourth day pyæmia supervened, with a chill. As the cause was supposed to be a commencing suppurating thrombus of the vein, the latter was opened, and a discolored fluid along with the contents of the thrombus escaped. Immediately after this the vein was exposed to Poupart's ligament, ligated at two points, and the intervening part, from two to three centimetres in length, removed. The femoral artery was also ligated to guard against further hemorrhage. The temperature of the body at once sank to the normal, and the patient recovered without further bad symptoms. Ligation of the vein under similar circumstances has been performed before with good results, and as soon as the diagnosis is established one would not hesitate to resort to it.—*Cincinnati Lancet and Clinic.*

Fatty Embolism.—This form of embolism seems to be attaining some pathological as well as clinical importance from its occasional occurrence in diabetes, and its frequent occurrence where the continuity of bone is interrupted. Two cases, illustrating the latter fact, have recently been demonstrated by Professor Recklinghausen, and are related in the *Cincinnati Lancet and Clinic*. In the first case, death occurred about forty-two hours after resection of the carious head of the femur. The patient, a healthy and well-nourished young man, had been doing well for the first twenty-four hours after the operation; he then suddenly grew worse, and died in collapse. Macroscopically, none of the organs or tissues presented anything abnormal, and it needed microscopical examination of the lungs to account for the sudden and unexpected death. In the second case, a man forty-nine years old, there existed a very extensive chronic endarteritis, with granular kidney, and an immense hypertrophy of the left ventricle. The disease of the arteries had led to the occlusion of both tibial arteries on one side, and dry gangrene had begun to appear, when the patient suddenly died with some symptoms of apnœa. The microscopical examination showed large masses of fat in the arteries and capillaries of the lung.

According to the researches of Bush, fatty embolism of the lungs always occurs in greater or less degree where the continuity of bone is interrupted—hence, even in simple fractures. It is only in rare and severe cases, however, that the embolism is sufficient of itself to cause death.

Recent Progress in the Symptomatology and Treatment of Intestinal Obstruction.—For some time past the *British Medical Journal* has been publishing articles from various prominent men, on the subject of intestinal obstruction. The discussion, aroused in this way has brought out a number of important points, and has placed the treatment of

this affection on a more definite and satisfactory basis than ever before.

Preliminary to the consideration of intestinal obstructions, a very useful classification into acute and chronic forms has been proposed by Dr. James T Goodhart. Under the head of acute he places: 1, internal strangulation; 2, volvulus; 3, intussusception; which latter may also be chronic. Under the head of chronic are: 1, intussusception; 2, contractions; 3, strictures. Besides these there are rare cases of obstruction from gall-stones and various foreign bodies. The symptoms associated with the acute forms are sudden vomiting and constipation. The constipation is generally absolute, but there may be small passages. Abdominal distention, tympanites, visible peristalsis, all follow very soon, while the vomiting eventually becomes stercoraceous. In the chronic cases there is generally a history of paroxysmal colic for some time before the onset of the more urgent symptoms. The abdominal distention slowly increases, and reaches an extreme degree, and the vomiting and absolute constipation come on at a late period. Throughout the illness the visible muscular action is usually a prominent symptom.

It is in regard to the treatment of intestinal obstructions, and especially as regards surgical interference, that opinions have varied most conspicuously, and that the recent discussion has been most extended; nor are the authorities even yet fully united upon it. It is agreed, however, that, in cases of this kind, the first point to be observed is that of denying the patient food and drink. He should receive nothing but nutrient and stimulating enemata. He should not be given any solvents even, with the idea of liquefying the fæces, for it has been determined by post-mortem examinations that the contents of the intestines above the stricture are always fluid.

The next point, as to the proper drugs to be administered, is not so clear. According to Dr. Goodhart, opium should be administered, as it not only relieves pain, but often acts in these cases like a purgative, by relieving to some extent the constriction and allowing the passage of the intestinal contents. Dr. W. H. A. Jacobson, however, in a paper read before the Hunterian Society, advises the avoidance of opium if possible, as it has a dangerous tendency to mask symptoms. There is a general agreement, whether opium be used or not, as to the great value of belladonna. In 1878, Dr. Norman Kerr published a paper giving statistics showing the efficacy of this drug. Five cases of intestinal obstruction were related, all of which got well, although three of them received two grains of the extract every hour. It is generally necessary to use very large doses.

Whatever drug may be given, a very prominent indication has, at the same time, to be considered, viz: that of the relief of over-distention. For this purpose, puncture of the distended coil of intestine above the stricture has been recommended. Dr. W. H. Broadbent, physician to St. Mary's Hospital, relates the case of a lady who was subject to periodical attacks of intestinal obstruction due to pressure of an ovarian tumor. On five occasions this obstruction was relieved by puncturing the intestines, which were greatly distended with gas, with a long aspirator needle. No evil effects followed, in spite of the fact that twice the motion of the collapsing intestine pulled the needle so that it lay flat upon the abdominal wall. It is the more general opinion, however, that puncture of the intestine is an extremely dangerous procedure. If the distention is not at once relieved, the mucous membrane fails to evert itself and cover the hole; consequently fæces escape and peritonitis is set up. If practised at all, great quiescence of the intestine must be obtained by an extra dose of morphine; a coil of intestine containing gas alone should be selected, and it should be punctured in its highest and central part.

Should drugs fail, and puncture be inadmissible or useless, there are still left two courses to pursue: the one is abdominal taxis, the other an exploratory incision, followed, if possible, by surgical or mechanical treatment of the obstruction. More than twenty years ago Mr. Hutchinson contended that gastrotomy for abdominal obstruction was never justifiable; and, further, that, as a rule, abdominal taxis was to be preferred to an exploratory incision. The first dictum has now been conclusively refuted, and it is also pretty well established that if abdominal taxis and all other measures fail, an exploratory incision should be made. Facts, as far as they have been collected, show that an exploratory incision made under the above circumstances will not diminish the chances of the patient, and may save an otherwise hopeless case. Abdominal taxis, however, should, as a rule, be first tried; a point to be remembered is that unless done early it may increase the damage done to the constricted and already weakened intestine. In performing this taxis Mr. Hutchinson's directions are that chloroform be used, that a copious enema of water be forced, by help of a tube, into the intestines, and that then, upon escape of the water, the patient be inverted and the intestines be firmly pressed as high up as possible in the abdomen.

Should all previous measures fail, gastrotomy should be performed, under the following conditions: 1. It should be done earlier than has heretofore been the case. 2. It should be done antiseptically. 3. It should never be done when symptoms of peritonitis or enteritis have set in.

The last rule is laid down by Mr. Jacobson, but it has its exceptions. Thus, in the September number of the *American Practitioner*, a case is recorded by Dr. J. N. McCormack, in which gastrotomy was performed for internal strangulation. Upon cutting down to the peritoneum, the intestines were found agglutinated with lymph, while the strangulated part had already begun to slough. The patient recovered, however, with an artificial anus.

Contagious Pleuro-pneumonia.—This disease has recently appeared again among the cattle in Putnam County, New York, and has created much alarm there. The manner in which the disease was introduced is as yet unexplained. The first case appeared last January in a herd on the eastern limit of the county. A second herd, on the western border, became affected in July last. Up to October 9th there had been twenty-seven deaths from the disease; about fifty were then suffering from it, and from one hundred and fifty to two hundred had been exposed. Gen. Patrick, Prof. Law, and Dr. Hopkins have examined the cases and pronounce them undoubtedly those of contagious pleuro-pneumonia. The disease begins insidiously, but eventually develops the symptoms of an acute pulmonary phthisis; the lungs, upon post-mortem, often showing excavations as well as hepatization.

Some attempts were made at first to prevent further infection by inoculating the healthy animals. This, however, has been forbidden by Gen. Patrick. The County Supervisors have raised sufficient money to carry out the "stamping out" process, which consists of quarantine and extermination.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 8, 1879.

HOSPITAL PAY-PATIENTS.

Of late there has been some discussion concerning the proper relations which should be maintained between the attending physician or surgeon and the hospital pay-patient. At first sight the question would appear to be a natural and easy one to settle, but it has in reality grown into one of the difficult problems of hospital management.

With very few exceptions, all of our public institutions receive patients who are expected to pay for the accommodations and the treatment which they receive. The income derived from these sources is devoted to the interest of the hospital, and to the striking of a balance in favor of such patients admitted as paupers. This is perfectly proper when confined within certain limits. But, not content to meet the requirements of patients who are willing to pay a small sum and maintain a certain independence, the managers provide extra accommodations for patients, for which proportionably heavier rates are charged. For instance, some of the private rooms in these hospitals are held at from twenty-five to fifty dollars per week, according to extras which may be furnished in the shape of private medical attendance, private nurses, etc., and yet these patients are expected to maintain the same relationship to the medical staff, regarding pecuniary compensation, as the veriest pauper who, for the purest charity's sake, is admitted for medical treatment.

It requires no argument to prove this a flagrant abuse of medical charity. While the profession are perfectly willing to give their services to the very poor, or even to those who can do no more than pay a nominal sum for their board in a hospital, it is certainly an abuse of such generosity to ask members of the staff to give their time and attention to the treatment of patients who can afford to be luxurious, who demand private apartments, and who are able and willing to pay liberally for them.

It may with some show of justice be claimed that an institution which can, under the name of charity, provide such extras for well-to-do patients, must necessarily make the care of the sick and needy secondary to mere pecuniary considerations and to the maintenance of a first-class hotel, with medical attendance free. As a rule, when a well-to-do patient applies for admission into any of these institutions, if he is willing to pay for his accommodations, no objections are offered by the superintendent. On the contrary, the latter seems only too willing to seize the opportunity of thus increasing the income of the hospital. While it may with truth be said that the managers would not directly interfere with the receiving of a medical fee from such patients, they are so far from encouraging the practice that it is barely tolerated. So much is this the case, that it would be difficult to foretell the result should any attending physician or surgeon of the institution refuse to attend these extra-paying patients unless he received his usual fee for so doing.

It is true that the visiting staff are supposed to give their services free to hospital patients. So far as it is an act of charity, this is perfectly well understood; but a patient ceases to be an object of charity when he is able to pay fifty dollars per week for a private room. If the hospital has a right to accept such extra pay for accommodations under the name of a charitable institution, there can certainly be no blame to the physician for making a proportionate claim. And yet it is said by the hospital management that if such a precedent were allowed, an unjust distinction might be made in favor of such patients as could afford to pay the most. While this objection to a fee system might apply to nurses, it certainly could not do so to the doctor, who, while in attendance upon a case, discharges his duties with as much conscientiousness to a pauper as to a king.

It is well known that certain persons come to the hospital as private patients to the attending physician or surgeon, and that the usual fees are then charged. On the score of equity, there can be no possible objection to this. The physician or surgeon is entitled to his fee the same as if he treated the patient in a hotel. The advantages to both, however, are obvious in the increased facilities which are offered in a hospital for the treatment of disease, and especially when operations are required. But there are patients who frequently come into a hospital of their own accord, without any preference as to medical attendants, simply upon the general reputation of the institution, and the consequent guarantee which it gives for proper treatment. It is these cases who abuse the medical charity of the staff, and who assume that they have discharged all their obligations when their extra bed and extra board are paid for. Not only do these patients impose upon the staff, but upon the profession outside of the hospital. In this way the hospital, with perhaps the best of intentions, becomes indi-

rectly an abettor of fraud, and invites the commission of the very abuses which by its avowedly charitable mission it ostensibly aims to prevent.

How to remedy the evil is, as we have before intimated, somewhat of a problem. The hospitals are not likely to abolish the system of pay-patients, neither are the profession ready to say that with proper regulations the paying system in these institutions is not productive of great benefit. But where to draw the line, and how to do it, are not such easy matters to determine. We take the ground, to start with, that no patient able to pay for medical services should receive them for nothing, whether he be in a hospital or not. Every hospital physician and surgeon owes it to his profession to take a similar position.

It can scarcely be supposed that the managers of any hospital will insist upon a member of the staff rendering gratuitous services under such circumstances, but that they will be willing to listen to reasonable suggestions as regards a remedy. At first it might seem that a pay-patient entering the hospital without any special preference for a medical attendant, is under pecuniary obligation to the hospital alone for all the benefits he receives. Whether the hospital or attendant should receive the fee is a question between the managerial board and the staff. It would seem just, however, when the hospital receives pay for extra accommodations, that the staff should be compensated at ordinary rates for their services, which are really in the shape of extras to patients who can pay.

IMPURE WATER AND DISEASE.

The sanitary effects of impure water, as originating epidemical diseases, appears to be one of those subjects which are forever coming up for discussion. The question, although obnoxious to many, must continually present itself, especially as the conviction is gaining ground, in the minds of some of our most eminent physicians, that the evils resulting from supplying cities with impure water will have to be radically met, and that without much delay.

It is much to be regretted that the connection between impure water and disease, although amply proved, does not rest on so exact an experimental basis as might be desired. In addition, it must be confessed that the evidence differs much, both in regard to the nature of the different diseases and the value of the testimony, which may arise from defective modes of analysis of water, or inability to make proper microscopical examinations, but probably the chief difficulty is caused by those coming in contact with such cases making but a superficial investigation.

If reference is made to the series of reports on the Public Health in England, by Mr. Simons, instances of outbreaks of enteric fever being caused by the excremental pollution of water, will be found by the hundred; and while it is impossible to make even a rough estimate of the number of persons annually sacrificed by impure water, taking the cases of enteric fever alone, no less than 6,879 deaths occurred during 1877 in England and Wales, which were, as Mr. Ernest Hart says, intimately connected with filth, and thus wholly preventable. In the admirable fifth report of Mr. Simon, an abstract is given of no less than one hundred and sixty-four epidemics of typhoid fever, investigated by his department during four years, and in all these cases excremental pollution of air or water—generally both—was found. It will thus be seen that the careful and systematic investigations into the causes which have preceded a large number of epidemics in England, are gradually leading to a collection of facts and statistics which will be of the highest importance in arriving at a conclusion.

The recent outbreak of enteric fever at Caterham, England, which was traced, beyond a doubt, to the water-supply, is a striking case in point, although the nature of that supply appeared to preclude the possibility of its containing any impurities which could lead to such a result. In this case we are told by Dr. R. Thorne Thorne, F.R.C.P., who brought the matter before the National Health Society, that during the fortnight ending the 2d of February last, enteric fever broke out in the town of Caterham, and within a few hours at Redhill, an adjacent town, the total number of cases being 196 within the period named, the facts showing conclusively that they constituted an epidemic having a common origin. All the sanitary circumstances of the population were investigated, the systems of sewage and drainage, and the several means of excrement disposal. Every possible means of contagion was in turn dealt with, including the milk service. The water-supply appeared to be above suspicion; it was derived from chalk wells 500 feet deep, and had a decided reputation for being perfectly wholesome, and investigation showed that no contamination was possible by soakage from cesspools or otherwise. But there was one fact which led to further inquiry in this direction, and it was this, that in the infected district the common supply of water was not used in 1,400 houses, the occupants of which used a private supply of water, and these people were all free from the epidemic which was raging around them. To be brief, for the case is given in the greatest detail, it was eventually found that a workman engaged in repairing one of the wells during the previous month suffered from a mild attack of enteric fever, accompanied by profuse diarrhœa, and was forced to evacuate in the adit, notwithstanding the regulations to the contrary, and within fourteen days the disease broke out in the form of an epidemic among the consumers of the company's water. As soon as these facts became known, the inhabitants were cautioned against the

use of the water, until all possible contamination was got rid of. The efforts in this direction were so successful that the epidemic soon ceased, and has not been renewed, although the water is again in general use.

It is not our purpose, in these remarks, to treat of the water-supply of this or other cities of the Union; but with this case officially before us, we cannot refrain from noticing, in passing, the notorious fact that the water-courses that supply the city of New York with its drinking-water are contaminated by very many sources of pollution, and that besides the general drainage of a district passing into the stream, Irish settlements, and dwellings of laborers upon the banks, have each their rough drain or sewer leading more or less directly to the lake. Bearing in mind that the district from which the croton supply of water is obtained, is always more or less troubled with fever, the public danger of the contaminations we refer to are too obvious to require further exposition.

We have briefly touched upon the various bearings of this important question, in the hope that by showing the deep interest exhibited by our professional confrères in England, in intelligently investigating the subject, that a like concern may be taken by our own physicians, whose opportunities for studying epidemical diseases are unfortunately greater than those presented to medical men in most civilized countries. It is this careful and patient collection of facts, and their thoughtful and scientific interpretation, that must place this question of water contamination in relation to the causation of disease beyond the pale of argument, and thus prepare the way for suitable preventive measures. We therefore repeat that our English brethren have shown us a good example.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

We are gratified to learn that the seventh annual meeting of this organization, to be held at Nashville, Tenn., on the 18th to 21st inst., bids fair to rival in point of interest and importance any of its previous gatherings. The circular issued August 15th, by the President, Prof. Cabell, and the additional announcement contained in the National Board of Health Bulletin, No. 14, evince a wise choice of subjects for discussion, which, if properly treated, will command public attention from all parts of the country. The subject of city sanitation, though considerably agitated by the public press, and studied by local health authorities, presents many points worthy of the careful consideration of a deliberative scientific body like the Public Health Association, while the "practical questions connected with the management of an actual or threatened outbreak of yellow fever" may be considered in these days of rapid communication, of great interest to the Northern and Western, as well as to the Southern States. We shall therefore attentively watch the proceedings of this meeting, which cannot fail to be interesting and beneficial to the members and the general public.

No efforts are being spared on the part of those interested in the welfare of the Association, to insure the success of this annual meeting. Many of the railroads leading to Nashville offer reduced rates of fare; hotels extend to members and delegates liberal terms; and the local committee and citizens of Nashville are preparing to give the Association a cordial welcome.

Reviews and Notices of Books.

LECTURES ON SYPHILIS OF THE LARYNX, LESIONS OF THE SECONDARY AND INTERMEDIATE STAGES. By W. MACNEILL WHISTLER, M.D., M.R.C.P. London: J. & A. Churchill, 1879. Pp. 88.

This little book is a reprint, with slight additions, of two lectures delivered at the Hospital for Diseases of the Throat and Chest, London, and first published in the *Medical Times and Gazette*. The treatment of the subject, which does not touch upon the deeper lesions of the tertiary stage, is much more thorough than would be expected in a clinical lecture, and, in fact, has the completeness and detail of a monograph or of a chapter of a text-book. Its principal interest lies in the description of appearances found in laryngoscopical examination.

Reports of Societies.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, October 6, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

TUMOR OF CRUS AND PONS.

DR. R. W. AMIDON presented microscopic slides holding sections made from a tumor which involved the crus and pons. The point of interest centered in the question, "Are the nodules syphilitic or tubercular in character?"

RESOLUTION RELATING TO A CONSULTING BOARD FOR LUNATIC ASYLUMS.

DR. W. A. HAMMOND, under the head of Miscellaneous Business, introduced the following resolution, which was unanimously adopted by the Society.

"*Resolved*, That the recent board appointed by the Commissioners of Charities and Correction as Consulting Board to the Lunatic Asylums on Ward's Island and Blackwell's Island, though composed of distinguished physicians, does not represent the science of psychological medicine in this city, and therefore, in the opinion of this Society, is not competent to do the work assigned them."

Dr. Landon C. Gray, of Brooklyn, was elected Vice-President of the Society, to fill the vacancy caused by the resignation of Dr. Kiernan.

THE ASSOCIATION OF APHASIA WITH THE SYMPTOMS OF SO-CALLED SPASMODIC SPINAL PARALYSIS.

DR. GRAY read a brief paper, in which was related the history of two cases that illustrated the above

combination of symptoms. The association of aphasia is not infrequently observed in cases of cerebral hemorrhage, followed by secondary degeneration in the cord, but he was not aware that the same combination had been mentioned as occurring in any other class of cases.

Dr. E. C. Seguin remarked that while he had seen a number of cases of infantile spastic paralysis, in none of them was there true aphasia. Speech was normal in all the cases except those in which there was an imperfection that was infantile, but was not aphasic; it was due to lack of development. He thought that, in the vast majority of cases, at least of congenital tetanoid paraplegia, there was no peculiar defect in speech which could be called aphasia. The motor tract was not necessarily intimately associated with the speech tract, and it was easy to conceive that a large number of cases of lack of development occurred with symptoms belonging to what was called tetanoid paraplegia, yet without impairment of the parts of the cortex or white substances which lie anterior to the common motor tract.

Dr. Gray remarked that in his first case, more especially, the patient told him repeatedly that he could not recall words which he wished to speak, but that when they were pronounced for him he had no difficulty in repeating what was spoken to him.

Dr. Hammond stated that he had not seen *amnesic* aphasia associated with spastic paralysis, but within the last year he had seen two cases in which *ataxic* aphasia certainly was present. Memory was perfect, and there were no cerebral symptoms other than those relating to speech. In one of the cases the staccato speech was illustrated.

NERVOUS DISEASES IN EUROPE.

Dr. Geo. M. Beard remarked briefly on the study of Nervous Diseases in Europe, and based his remarks on observations made during his recent visit there.

METALLOSCOPY.

While in Paris, Charcot gave him every opportunity to observe all his experiments, not only in the department of metalloscopy, but in trance, and the conclusions which he had reached from the observations then and there made are as follows:

1. Results far more interesting and informing, both in a physiological and in a therapeutical sense, have been obtained where the experiments were made in such a way as to make it absolutely certain that the only factor in producing the results was merely *subjective*—the mind of the patient acting upon the body. It is also established that, under any influence or mode of treatment calculated to act on the emotions in any way, it is difficult to exclude this subjective element of error which comes from the mind of the patient operated upon.

In his own experiments in mental therapeutics, thus far published only in abstract, Dr. Beard believed he had established the following:

By turning the mind of the patient on his body, through any process whatever, as by stating the precise hour when recovery will take place, by applying metals *outside* of the clothing, etc., it is possible to cure permanently as well as very rapidly, and in some cases instantaneously, cases of long-standing functional nervous disease.

Even *organic* structural disease may, in the same way, be relieved temporarily more speedily and satisfactorily than by any of our objective medication.

In any physiological or therapeutical experiments or measures, like the application of metals or magnets, or any very imposing proceedings that strike the emotions of ignorant or hysterical women, the presumption is, thousands to one, that the result, whatever that may be, is *subjective* and not objective, and this presumption must be overthrown before such experiments can be received as science.

2. On the other hand, the recent discoveries and inventions, of which the telephone, the phonograph, the audiometer are types and representatives, have proved that great results can come from changes in matter very minute and out of the range of the senses. It is also well known that a magnet can stop a watch, elongate an iron rod, and make music in it. These results so far are in favor of the claims of Burq, Charcot, and others in regard to metals, magnets, and solenoids.

3. The first presumption can be overcome only by a series of experiments on different patients, under different circumstances and at different times, in which all the six sources of error that apply to all the experiments with living human beings have been carefully eliminated. The six sources of error are the following: 1. Unconscious deception on the part of the subject experimented on; 2. Intentional deception on the part of the subject experimented on; 3. Intentional collusion of other parties; 4. Unintentional collusion of other parties; 5. Chances and coincidences; and, 6. Phenomena of involuntary life, the mind of the subject operating on the body and producing results. To eliminate these errors, the subject experimented on must be *deceived*.

4. The reports of experiments made by Burq and Charcot as they were *first* made, and the replies to criticisms upon them, contained no evidences whatever that these sources of error had been eliminated. It is right, and scientific, and necessary, therefore, that we should assume that the presumption that the results were subjective had not been overcome. Dr. Beard had nothing to recall or modify of his criticisms on these experiments in his pamphlet on that subject.

5. There is, however, *now* evidence of an important character that more recent experiments of Charcot and others have been made in such a way as to eliminate these sources of error; and if the statements of Charcot made to Dr. Beard are accepted, results have been obtained which, some of the time at least, are objective, and we have so far obtained an addition to physiological science. Similar results as those reported by Charcot in hysterical conditions have been obtained by Dr. McCall Anderson, of Glasgow, and, according to his own report, the elements of error were properly eliminated by the use of *false* magnets. When he used false magnets no effects followed; Charcot says the same.

6. The subject has therefore reached a stage where it may properly receive the attention of experts in this department. It is an open question waiting to be closed one way or the other. No experiments in this department are worth anything unless the subject is all the time deceived. The public exhibitions of Charcot prove nothing.

These questions, however settled, have a physiological more than a therapeutical interest. Charcot has abandoned metal therapeutics so-called, and regards his experiments merely as physiological curiosities. It is, however, not impossible that we shall find in these processes an addition of a certain value—perhaps a greater value than is now apparent, for relieving hysteria, neurasthenia, and allied states.

ELECTRICITY.

With regard to the use of electricity, not much progress had been made within the last few years. With regard to the question of direction of current, he was much interested to hear the views of Erb, who said that we did not know sufficient of the physiological action to tell what direction of current should be used therapeutically in the sense in which various writers were speaking upon that subject. Dr. Beard had long taught this doctrine, and thought it was the growing view upon that theme.

WATER IN THE TREATMENT OF NERVOUS DISEASES.

He also observed that water was more and more used in the treatment of nervous diseases. Charcot was using it a great deal, and sent many of his patients to an institution where they could get special treatment in that direction. As one means of counter-irritation, he was using a very fine stream of spray, sent against the skin with such force as to give a sensation of burning.

SEA-SICKNESS.

He experimented somewhat in the treatment of sea-sickness, and found that large doses of the bromides, sodium preferably, with caffein, and hypodermics of sulphate of atropia, were effectual means for controling the trouble. Bromides in 30, 60, or 90 grains daily, begun two or three days before sailing and continued while at sea, deprived sea-sickness of one-half of its terrors, and in that respect verified the claims made by Dr. F. D. Lente for the same remedy.

Sulphate of atropia hypodermics, $\frac{1}{100}$ of a grain, and repeated sufficient to *produce dryness of the throat*, gave very satisfactory results.

Caffein acted exceedingly well in many cases, given in two- or three-grain doses, and repeated in the same manner as when given for sick headache. Headache is the only symptom present in some cases of sea-sickness, and in those cases caffein was especially serviceable.

HAY FEVER.

Dr. Beard also heard of three or four who had hay fever all the time they were on the ocean. One man was cured as soon as he landed in England.

The city of London, on account of its enormous size, was also a kind of refuge for hay fever subjects, a fact which he had not before known.

Dr. Hammond said that the experiments performed by Charcot in the use of metals and magnets were such as were made more than one hundred years ago. While he did not dispute that the phenomena had been observed that was claimed by Charcot, he believed the same phenomena can be produced by the use of pieces of wood or tortoise-shell having the shape of magnets or metals. With reference to the delicate stream of water, he had used it for some twelve years, and regarded it as a very good form of counter-irritation, although he had not used it for some time.

Dr. Beard remarked that the only difference between his belief and Dr. Hammond's was that, if what Charcot told him was true, and if what McCall Anderson had published was true, he believed there was a possibility, based upon the statements of those two men, that the magnets *might* in some cases of hysteria produce a slight physiological effect. The fact that such phenomena could be in some cases obtained without using a real magnet, by mind acting on body, was nothing against some of the results claimed by Charcot.

The question was discussed at some length, after which the Society adjourned.

Correspondence.

DETERMINATION OF SEX IN UTERO.

To the Editor of The Medical Record.

Sir: In your issue of the 11th inst., Dr. T. C. Waite refers to a note of mine upon the subject named above, published in the Record of Nov. 23, 1878, which he must have read very carelessly, or he would not have ascribed to me experiments made in Switzerland and reported to the Agricultural Society of Canton de Vaud, in 1867. These experiments demonstrated the correctness of the Thury law for the production of sexes at will: namely, that conception following menstruation produces females, and conception preceding menstruation produces males. If Dr. Waite will again read my article he will see that I advanced no theory. It was not my purpose to do so. The truth or falsity of the Thury law can be sooner and more satisfactorily demonstrated by careful experiment than by the evolution of theories which must remain, more or less, the subject of controversy. If the law be correct, or even if extended experiments prove that only a majority of cases follow the rule, the fact ought to be known. Every practising physician will meet with instances where this knowledge would confer untold happiness. The variable periods of gestation and the difficulty of determining the exact time of conception, tend greatly to hinder research in this field; but if every accoucheur would diligently inquire into the matter, much valuable information would be elicited. If it be found that where the full-term delivery occurred at or before the expected time, the child is female, and where gestation goes on longer than was expected, the child is male, the evidence will be strong (but not conclusive, I admit) in favor of the proposition of Prof. Thury. Again, there are but few physicians who have not had an opportunity among their patients, whose judgment and candor he can rely upon, of fixing exactly the time of conception. It was to call attention to these observations—to promote interest that would lead to extended experiment, and not to elaborate any theory, that prompted me to write the short article of one year ago. I may say that my investigations since that time point without exception to the same conclusions.

I might well refer Dr. Waite's question, which he thinks will knock the theories of the "learned doctors" into "infinitesimal atoms," to others than myself who have written upon the subject, as I have not advanced any theory and cannot presume to class myself among the "learned doctors." But as I am the only person he names, I will say that a plural pregnancy of different sexes argues nothing against the correctness of the Thury law. It could only do so if it were a fact that every plural pregnancy is the result of a single act of insemination, by which the two or more yolks which are occasionally found in one ovum are simultaneously fertilized. But such is not the case. More than one ovum may be contained in one Graafian vesicle, or more than one Graafian vesicle may be expelled from one or both ovaries, and these may be fertilized by a single act, or by different acts, of insemination. That the last proposition may be true is proved by cases on record where white women have borne twins, one white and the other mulatto. Will Dr. Waite undertake to assert positively that twin pregnancies of different sexes are NOT the result

of separate acts of insemination, the male the product of that previous to, and the female of that after menstruation?

Respectfully,

JOSEPH A. MUDD, M.D.

NEW SALEM, Mo., Oct. 21, 1879.

DETECTION OF STONE IN THE BLADDER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I notice in your August 2d Journal a note on detection of stone in the bladder by means of iron wire bent to touch the ears and connected with the sound. If the author of this method, or any one disposed to try it, will attach a wire to his sound and take the unattached end of the wire *between his teeth*, he will find it will betray minute touches with surprising delicacy.

Respectfully,

JAMES B. HODGKIN.

WASHINGTON, D. C., Oct. 21, 1879.

THE PROLONGED RETENTION OF LIFE IN THE NEW-BORN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Recently I received a call from a lady living at some considerable distance from my office, and knowing naught of the case, indulged in no particular haste to answer. It proved to be an obstetrical one, and upon my arrival, a lady, the only person present with the patient, stated that the child had been born over half an hour, and was dead; she was positive about the time, and referred to a clock in plain view on the mantel. Since its birth she had proceeded to a physician over half a mile distant, only to find him absent. The labor had been precipitate, and I found the child lying between the mother's thighs, the head being pressed firmly against the vulva, and held there by the cord which passed about the child's abdomen, and then took two turns about its neck, while the placenta was still held securely in utero. The turns about the neck formed a sort of clove hitch, and were so tight that my finger could not be inserted beneath until the cord was severed. Notwithstanding the cessation of pulsation and deep cyanosis, the results of at least thirty minutes' complete strangulation, yet persevering and long-continued efforts at resuscitation were successful. Every accoucheur sees such, and even graver instances, illustrating the almost incredible prolonged retention of life in the new-born who have not breathed, and this remarkable power to resist the deprivation of air actually remains in a decreasing degree even to the fourth and fifth day of life. The experiments of Legallois show that puppies and kittens may be kept under water immediately after birth, with impunity, for a period not less than twenty-eight minutes. In some experiments carried on by myself, it was found that puppies two days old died only after being submerged from fifteen to nineteen minutes, while one of the same age, who showed no effects after one hour, from the subcutaneous injection of morphia, gr. ss., being then submerged, succumbed in seven minutes. The human still born fœtus can live longer without respiration than can any other mammalian fœtus.

The cases in the "Gazette Hebdomadaire" for December 1, 1824, fully demonstrate this fact.

The following cases can be found in Braithwaite's Retrospect, Part XXXI.

A woman, æt. 25, who had tried to conceal her pregnancy, was delivered when seated on a tub. The infant, born without any signs of life, was buried in a sand-pit, and, after remaining there for half an hour, was removed, and lived.

In 1850 a young woman was tried by the tribunals of Berlin, who had buried her new-born male infant, believing it to be dead. After an hour the infant was disinterred, and recalled to life.

T. P., a servant, æt. 23, was delivered in a stable, when leaning against the wall, alone, and in a state of unconsciousness, about half past four A.M. When she came to herself, she found the infant on the ground, having a spade lying upon it, with its cutting edge turned to the body. She took the infant, which was perfectly cold, believing it to be dead, and with the placenta attached, wrapped it up in her apron and buried it in the garden. Suspicions arose that she had been confined; she confessed, and at half-past nine the infant was dug up from a depth of thirty centimetres. It was found lying on its face, with the placenta under the abdomen. Though cold, apparently dead, and pulseless, the cord was tied. For two hours, P., a surgeon, used means to reanimate it; when at last it began to breathe freely, gradual signs of life became more evident, and it cried. Some slight wounds were observed on its body; wounds in the neck which did not bleed at first, bled when the infant was restored. On the 17th and 18th the wounds suppurated, and on the 19th it died of convulsions. The physicians intrusted with the judicial autopsy reported that it had been inhumed before it breathed, and that it had not breathed till after it was exhumed.

From the above one would seem to be encouraged to persist much longer in the attempts at resuscitation in cases of infantile asphyxia than is generally done by the majority of us, and he who would be the most successful in such attempts need not be the most skilful, but must be the most patient and persevering.

Respectfully,

A. C. HOFFMAN, M.D.

JERSEY CITY.

LITHOTRITY BY THE SURGICAL ENGINE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—That lithotrity is still in its infancy, and will ultimately do away with the dangerous operation of lithotomy, I have not the least doubt. I have paid much attention to this subject, but never saw my way clear to any practical operation to effect this great desideratum, until the introduction of the surgical engine. In making suggestions in regard to the improvements of the present mode of lithotrity, let us make an inquiry into its main objection. This appears to be the local and constitutional effects of the use of the lithotrite. It is a matter of importance to ascertain the seat of irritation caused by the use of the instrument. It is evidently within the channel of the urethra, and near its entrance into the bladder. The anterior urethra will tolerate a short bougie without any of this characteristic irritation, which I have repeatedly tested by a system of treating gleet with atmospheric pressure with short bougies (*vide* "Medico Chir. Review," Phila.); and, on the other hand, the bladder is accustomed to a foreign material, and besides, is not subject to any special hyperæsthesia, except at the neck of the bladder, where it impinges upon the internal opening of the urethra.

The clumsy introduction of a catheter into the blad-

der will induce this same irritation and its consequences, but one introduced with care and skill, and left within the urethra even for hours, may cause little or no trouble. It is not the presence of a polished foreign body at this seat of hyperæsthesia, but the friction of its use that produces the mischief.

To make lithotrity uniformly safe and successful, we have to construct and use such instruments as will meet this difficulty. To bring about these favorable conditions, first introduce any easy bougie into the bladder, and allow it to remain for a short time. Continue this operation daily, only increase the size of the bougie, and extend the time of its retention as you pursue the treatment. By this procedure you effect two things—you establish a tolerance of the instrument, and at the same time effect a dilatation of the urethra. For the final operation, introduce into the bladder a silver catheter of the size of the last bougie that was used. The catheter is to be made of a very thin sheet of silver; and the bladder-end of it, so shaped as to facilitate its introduction, is fixed to the style, which is removed after its introduction into the bladder. This catheter gives us free access into the bladder—to wash out its contents—and for the repeated and ready introduction of instruments, without inflicting the least violence of the soft parts.

The lithotrite to be used is made light and elastic in the stem, so that it can be readily introduced through the catheter, with a clasp to hold the stone pretty much after the usual style. The instrument is made of the best steel, and in fashion for its ready passage, in particular through the curve of the catheter. It is an instrument simply to hold the stone, and not to crush it.

After the stone is secured by this instrument a drill is passed through it, terminating within its clasp. This drill is fastened to the end of a steel wire, and in order to insure protection to the soft parts of the interior of the bladder, its action must be strictly limited within the jaws or clasps of the lithotrite. After the stone is secured with the lithotrite, the drill is introduced and brought to act upon the stone by the surgical engine. A revolution of two thousand per minute will soon drill a hole through it. After one hole is thus drilled, change the position of the stone and drill another, and so on until you have demolished it. The instrument can be removed repeatedly, either to wash out the bladder, to inject water, or to extract fragments of the stone, without causing the least irritation to the urethra that is so well protected by the silver catheter.

There will be no difficulty in getting rid of the débris of the stone if the instruments are properly constructed, for by water and the contraction of the bladder we ought to be able to get rid of every particle of the stone. By this method of operating, the stone can be removed at one sitting with little or no pain or constitutional troubles as a consequence.

GEO. P. HACHENBERG, M.D.

AUSTIN, TEXAS.

SOME REMARKS ON CLIMATOLOGY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The following letter is from a very intelligent gentleman, an invalid, who has travelled very extensively over the world, and who has lately made climatology a study, and is now engaged on a work descriptive of the health resorts of the old and the new world. Although the letter is a private one, and not at all intended for the public eye, I think it may prove interesting just now to some of your readers who are being consulted about a suitable climate for the coming winter.

Yours truly,

FREDERICK D. LENTE.

MILAN, October 3, 1879.

My Dear Doctor:—I am studying the European health resorts at present, and with all the impartiality of which I am capable. Florida holds the first rank, and I place it above Egypt and Algiers also. Almost all the European winter resorts are irritating in their influence on the nervous system. The Rivièra resorts are especially so; invalids, as a rule, find great difficulty in sleeping. Such exciting climatic influences, I take it, must be disadvantageous. You accentuate, and I think none too strongly, the necessity for plenty of pure air in consumption.

Taking this view, there is not one known resort on the Rivièra that should not now be tabooed to that class of invalids. Cannes, Nice, Monaco, Mentone, San Remo, and even Hyières, have grown into large towns, crowded on one side by the sea, and on the other by mountains. The mild climate of this coast is principally owing to the protection from wind it enjoys. With the exception of an occasional "mistral," the air changes very little. The sea is tideless, and the drainage of what is now almost a continuous town is poured into this currentless water. The drainage of the hotels is also bad beyond belief, and, as a consequence, typhoid and all sorts of low fevers are prevalent.

Ten years have made a great change in the Rivièra. When I first knew it, the conditions of health were better. Egypt is not an irritating climate to the nerves, but is so to the mucous membranes, especially to the stomach. About February, however, commence what are called the "khamseen" winds, which are intensely hot, dry, and exciting winds. They prevail from February to June, and last usually two or three days whenever they blow. The ordinary day temperature at that season in Cairo, say 60° to 70°, and night temperature, say 34° to 50°, is changed by these winds in a few hours and raised to a continuous heat of from 95° to 120°. The latter temperature I myself recorded last May, seventeen miles from Cairo, at a sulphur spring called "Helonan." The temperature falls as rapidly as it rises. I knew of several serious cases of hemorrhage from the lungs during these winds. As they commence too early for invalids to risk safely a voyage on the Mediterranean, they seriously impair the usefulness of Egypt as a health resort.

Hoping to hear from you again,

I am yours sincerely,

ABBOT KINNEY.

FLEXIBLE VULCANITE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—As material for pessaries India rubber is liable to the very great objection that it becomes fœtid and macerated in the vaginal fluids, exciting leucorrhœa and erosions. Vulcanite is free from these difficulties, but it is rigid, inelastic, and therefore splints the vagina, and tends to atrophy of its muscular elements. The hard rubber or vulcanite instruments often become imbedded in the tissues, and produce œdema and ulceration. In the attempt to combine the advantages and to eliminate the disadvantages of these materials, I have produced a new instrument, which is now offered to the profession for trial. It has a coil of fine wires braided into a cord and covered with a modified vulcanite, which, while it retains the finely

polished and hard surface of ordinary vulcanite, is still flexible and elastic.

The instrument may be bent, without the aid of heat, by *the fingers only*, and will *retain* the shape thus given to it. It is for this combination of materials only that originality is claimed.

Several have been worn by my private patients from one to three months, and are found to retain their fine surface unaltered, and have not been found to produce the inconveniences of soft rubber. The instrument is cheaper than many, and may be found at Schmidt's surgical instrument store, on Broadway and Thirty-fourth Street.

W. M. CHAMBERLAIN.

58 WEST FORTIETH STREET, Sept. 30, 1870.

SOME CASES OF BRIGHT'S DISEASE TREATED WITH JABORANDI.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: —As the brief records of some cases of Bright's disease in which jaborandi was employed may be of interest, permit me to submit them.

CASE I.—I was called one evening to see a woman said to be hysterical. I found, indeed, all the symptoms that are given by the best authors of that protean malady; but, as the patient was pregnant, and had some headache, I endeavored to procure some of her water. It was impossible to get more than a drachm, as she fought like a tigress. It contained some albumen. I ordered free purgation, and gave bromide of potash, chloral, tr. valerian to quiet her. Eight hours after, I was again called to see my hysterical patient in "fits." Os uterus slightly dilated, and her convulsions occurring at each contraction of the uterus. I sent for forceps, and dilated the os uteri rapidly. I gave hypodermically $\frac{1}{6}$ gr. of pilocarpine. It acted promptly, and her convulsions were so modified that I gave her, in a half-hour, another injection of the same amount. The child was now delivered. Some other convulsions occurred after the birth of the child. Again I resorted to jaborandi, and again I succeeded. The purgation was thorough. The woman recovered.

CASE II. I was called shortly after to see a woman in puerperal convulsions. Two physicians had seen her, but one said to administer chloroform and she would come all "right," and the other refused to attend. The patient's convulsions were terrible, one every three minutes. The os was only partially dilated. Chloroform did not yield me very good results, so I resorted to jaborandi. Her skin was dry and hot. I threw up thirty minims of the fluid ext. of jaborandi per rectum. The œdema of the lungs which followed was so awful that I hope I may never see such again. I gave her up as lost; and, as the fœtal heart had ceased, I determined to wait her death before delivering. To my surprise, after an hour of these terrible symptoms, and by the free injection of ammon. carb., my patient rallied, and became conscious for the first time in twenty-four hours. I sent for my father, Dr. John Burke, and she was delivered. Everything appeared well. She had lost much blood, but she appeared to be doing nicely. I left. Was called back in two hours. She had another convulsion. I gave $\frac{1}{4}$ grain of pilocarpine, and, although it stopped the convulsion and did not occasion much œdema, she sank and died some hours after, spite of my most strenuous exertions.

CASE III. was a young man who, after being purged freely and cupped, still complained of headache, and had, with a dry, harsh skin, all the initiatory symptoms of a convulsion. The hypodermic injection of $\frac{1}{6}$ of a grain of pilocarpine and an equal amount of Magendie's sol. of morphia, by the orders of my father, Dr. John Burke, produced a most profuse perspiration and an agreeable sleep, which lasted for six hours, after which all his symptoms disappeared, and, with the rational continuance of appropriate medication, he recovered

MARTIN BURKE.

147 LEXINGTON AVENUE.

New Instruments.

NEW ARTERY AND TORSION FORCEPS.

By C. S. WHEELER, M.D.,

BRATTLEBORO, VT.

BELIEVING that the best results in surgical practice are due in some measure to the use of proper instruments, the author has devised this new forceps for the purpose of ligation or torsion of divided vessels, chiefly, however, to encourage the latter operation. It is needless to remark upon the advantage of checking hemorrhage without leaving a foreign substance — as a ligature — in the wound. That ligation of the larger arteries is the proper treatment, we believe; but that the smaller arteries may just as properly be twisted is an established fact.

The instrument illustrated is a combination which, we believe, all surgeons will appreciate. It consists of two pair of blades, the smaller, intended for torsion, revolving freely within the larger fenestrated pair; and when open, as shown in the cut, the inner pair is so arranged as to rest in a groove and follow closely the outer pair, so that when closed upon the artery the vessel is held by both pair. A ligature may then be applied, as with the ordinary fenestrated forceps; or, in case torsion is desired, the inside pair may be fastened by its slide-catch, the outer pair unlocked and the artery drawn out, held by the inside pair by the button at the base of the instrument; the outer pair is again closed on the vessel, holding it firmly while it is twisted by rotating the inside pair by turning the button at the base.

In case of emergency the button may be unscrewed and the inner forceps withdrawn, to serve the purpose of a small mouse-toothed forceps.

The instrument is manufactured by Messrs. Tiemann & Co., of New York City.

THE CRAVINGS FOR ALCOHOL.—The most reliable temporary relief for the cravings of alcohol, according to Dr. Kerr, is furnished by a full emetic dose of ipecac. Dr. Kerr is the advocate for red cinchona in the treatment of dipsomania.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Oct. 26th to Nov. 1, 1879.

IRWIN, B. J. D., Major and Surgeon. Having reported for duty at these headquarters, he is assigned to duty at Fort Meade, D. T. S. O. 116, Dept. of Dakota, Oct. 21, 1879.

GIBSON, J. R., Major and Surgeon. Having reported at these headquarters, to proceed to Fort McHenry, Md., and report to the commanding officer for duty. S. O. 192, Dept. of the East, Oct. 28, 1879.

TREMAINE, W. S., Capt. and Asst. Surgeon, Fort Dodge, Kansas. Granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the dept. and apply for two months' extension. S. O. 214, Dept. of the Missouri, Oct. 27, 1879.

HALL, J. D., Capt. and Asst. Surgeon, Fort Concho, Texas. Granted leave of absence for one month, on account of sickness. S. O. 221, Dept. of Texas, Oct. 20, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 1, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 25, 1879...	0	19	34	1	36	33	0	0
Nov. 1, 1879....	0	13	41	1	66	32	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 28th to November 4th, inclusive, was 5, and the number of deaths that occurred was 2. The total number of cases for this year to November 4th is 1,538, and the total number of deaths, 552.

No new cases have been reported since October 30th.

CHOLECYSTOTOMY.—The distinguished surgeon, Lawson Tait, of Birmingham, writes to Dr. Marion Sims: "You will be pleased to learn that I did a cholecystotomy on an unadherent distended gall-bladder, towards the end of August, and that the patient is now perfectly well. I removed one stone entire, but had to crush the other, it was so firmly impacted in, and adherent to, the orifice of the gall-bladder. I read the case before the Medico-Chirurgical Society of London."

THE LATE DR. EUGENE PEUGNET, OF FORDHAM, N. Y.—At a special meeting of the Yonkers Medical Association, held October 12, 1879, the following minute was adopted; a copy was ordered to be sent to the family of the deceased, and to be published in the medical papers:

"The Yonkers Medical Association desire to express their deep sense of the loss they have suffered in the death of Eugene Peugnet, M.D., of Fordham, N. Y., a member of the Association, who has so suddenly been taken from our midst, and to put upon record also their appreciation of his character as a man, and of his marked professional attainments. He was ever a regular and faithful attendant upon the meetings of the Society, and was always ready to do his part, contributing largely to their scientific interest. By his eminent ability and peculiar qualification as a surgeon, he gave to the meetings a superior tone and dignity. He exhibited a rare example of one whose interest and aim were directed towards elevating the character of the profession which he so dearly loved. We desire as a body to offer to those whose home his death has made desolate, our sincerest sympathy, and to make our prayer that He who has visited them with trouble, would look with pity upon their sorrows, would remember them in mercy, and comfort them with a sense of His goodness, lifting up His countenance upon them and giving them peace.

R. A. JOYCE, M.D.,
ARCH. M. CAMPBELL, M.D.,
F. S. GRANT, M.D.,
Committee."

ENGLISH PHYSICIANS IN CANADA.—The English law allows persons registered as physicians or surgeons in England to practise in Canada with no other formality than that of registering themselves. A petition was presented last summer by the College of Physicians and Surgeons in Ontario begging that this might be done away with, and that English medical men might be obliged to submit to an examination for license. It was claimed that the law infringed on the rights of self-government conferred on the Provinces, and also that a person who had been only registered as a physician or surgeon in England might come to Canada and practise both branches.

The petition seemed to be framed more especially in the interest of the Canadian medical schools, and it has not been granted by the Home Government.

THE CROSSING OF SPECIES.—Dr. Yandell, in his letter from Paris to the *Louisville Medical News*, describes his visit to the Jardin d'Acclimatization. He was shown there a fertile mule which had borne half a dozen colts, some of them by zebras, some by an ass, and some by a stallion. There were also many crosses produced between the zebra and ass, the horse and zebra, etc. The fecund mule, however, was considered the greatest rarity.

RUSH MEDICAL COLLEGE, CHICAGO.—The Rush Medical College commences its winter session with four hundred students. Considering the number, the institution seems to be appropriately named.

THE LOWEST FORMS OF LIFE.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Dr. Leidy referred to the structure of the low forms of infusorial life known as the amœba, upon a study of which and allied creatures he had been engaged for some time past. (A large and profusely illustrated work on "The Lower Forms of Life," from the pen of Dr. Leidy, is to be published at an early date in connection with the last Hayden survey.) He said that the species of the true genus amœba all possess a nucleus and a contractile vesicle. He believed that the latter organ, if it may be so called, performed the function of a combined heart and lung, as currents of liquid were probably received and expelled by it. It would be remembered that a form of life still lower than the amœba, inasmuch as it is devoid of a nucleus, had been described by Haeckel under the name of protamœba. Recently, Professor Butschli had described an interesting species which he had found parasitic in the intestinal canal of the common cock-

roach. Dr. Leidy was glad to be able to confirm all of Butschli's statements concerning this curious little creature, which he had observed in the situation indicated. He believed, however, that it should be placed in a genus distinct from the amœba, as it possessed permanent characters, which placed it between that genus and the protamœba. A distinct nucleus and nucleolus can be readily seen, but no trace of a contractile vesicle has, as yet, been discovered in it. In the typical amœba the protoplasm of which the animal is composed divides itself into two portions—a clear outer film and granular contents. In the new form no such division of substance can be seen during life, although the two portions separate after death.

These characters seemed sufficient to distinguish the creatures generically from those heretofore described, and Dr. Leidy therefore proposed for it the name of *endamœba*, retaining the specific name *blattæ* proposed by Butschli. This rhizopod is of interest to the student of microscopic life, because of the ease with which it can always be obtained for examination, and because it forms probably the simplest and yet the most complete example of a living organic cell—a particle of protoplasm containing a nucleus and nucleolus, and nothing else.

In answer to a question of Prof. Koenig, Dr. Leidy stated that it was commonly believed by those who studied infusorial life, that all the forms containing chlorophyl gave off oxygen after the manner of plants. The belief was not founded merely upon the green color of the contents, but upon experiment. He did not think that this liberation of oxygen by animal matter was necessarily contrary to the logic of nature, because we have not been able to positively distinguish animal from vegetable life.

THE MEDIA, PA., TRAINING SCHOOL FOR CHILDREN.—The annual meeting of the contributors to the Pennsylvania Training-School for Feeble-minded Children, was held recently near Media. The Hon. Edward A. Price presided. Dr. Alfred L. Elwyn, President, read his annual report, which urged the necessity of erecting a new asylum building, in connection with the institution, for what are called "custodial cases," by which poor children severely afflicted should receive not only shelter and care, but such development as their condition will admit of. The report, in urging the necessity for the erection of such a building, embodied an application for aid from the State.

Dr. Isaac N. Kerlin, Superintendent, read his annual report, which, speaking of the subject presented in the President's appeal, reiterated the demand for such increased facilities, and sketched a proposed plan of the organization, system of management, general workings, and the cost for an asylum building.

Allusion was made to certain events occurring during the year, among which were the following: The National Association of Officers of Institutions for the Feeble-minded, inaugurated at Media in 1878, held its Second Annual Session at the Illinois State Institution in May last, and was attended by Dr. Kerlin. The session was productive of much benefit to the general work. On the 23d of May last, the State Medical Society of Pennsylvania paid a visit to the school, and general satisfaction was expressed with the character and workings of the institution.

The improvements made during the past year embraced the erection of a three-story shop building of brick, measuring twenty by eighty feet, at a point safely distant from the main building. This is now used for mattress and broom making, and is well suited to the requirements of any trades and occupations such as may be hereafter added. Other alterations are now being made for the improvement of the size and condition of the house.

Appended to the Report was a series of tabulated statements, giving the following showing of the condition of the institution: The number of children remaining in the home on September 30, 1879, was 316, 201 of whom were boys. The support of these inmates was as follows: Wholly supported by the State, 162, partially, 8; Soldiers' Orphan Fund, 2; by the city of Philadelphia, 16; by the State of New Jersey, 49; by Delaware, 1; by the free fund, 6; by parents or guardians, 55; and by the institution, 17. During the year 60 children were admitted, of whom 43 were males. The number discharged during the same period was 32—viz., 23 males and 9 females.

The treatment and condition of the children was thus described: Improving under training and treatment, 162 boys and 71 girls; stationary, 20 boys and 26 girls; deteriorating through age or disease, 19 boys and 18 girls.

The inmates of the house were thus classified: In school and training department, 99 boys and 55 girls; in the manual labor department, 64 boys and 40 girls; and in the custodial department, 38 boys and 20 girls.

The report was adopted as read, and the following officers were elected:

Patron.—His Excellency, Hon. Henry M. Hoyt, Governor of Pennsylvania.

President.—Alfred L. Elwyn, M.D.

Vice Presidents.—One year: H. B. Tatham, Samuel A. Crozier; two years: MacGregor J. Mitcheson, Wistar Morris; three years: Geo. Martin, M.D., John M. Ogden.

Directors.—One year: Wm. F. Miskey, Isaac Jones, Chalkley Harvey, Edward A. Price; two years: Jas. A. McCrea, M.D., Joseph R. Rhoads, Evans Rogers, Samuel Bancroft; three years: Geo. Bailey, M.D. Wm. H. Miller, Isaac Worrall, Amos Bonsall.

Treasurer. Joseph K. Wheeler.

Secretary.—Franklin Taylor.

Superintendent.—Isaac N. Kerlin, M.D.

SPONTANEOUS CURE OF INVOLUTION OF UTERUS.—Dr. W. H. Mather, of Suffield, Conn., writes: "Mrs. Eliza —— had a miscarriage in December, 1868; flowed until March 15th following, during all of which time was without medical attendance. Was regular then until September 25th, 1879; flowed ten days. I was called and found the patient sitting, but bloodless and unable to walk. On examination, found the womb involuted to such an extent that the top protruded through the os. I failed to return it with means at hand; gave her opiates, and ordered rest. Saw her again the third day, and what I had failed to do nature had done, and restored the organ. The patient believed she retained a portion of the afterbirth from December until September, when she had violent pains and excessive flowing, with the discharge of a fleshy mass which she believed to be a portion of the placenta. I believe the uterus was involuted during ten days."

THE NEW YORK THERAPEUTICAL SOCIETY.—At an annual meeting, held October 17, 1879, the following officers were elected for the ensuing year: Dr. A. Jacobi, President; Dr. Robert F. Weir, First Vice-President; Dr. Mary Putnam-Jacobi, Second Vice-President; Dr. Andrew H. Smith, Recording Secretary; Dr. E. C. Seguin, Corresponding Secretary and Treasurer; and Drs. V. P. Gibney and H. T. Hanks, Members of the Council.

Foreign Quinine.—It is stated that some of this quinine, offered as pure, contains twenty per cent. of cinchonidia in it. As a great deal of foreign quinine is being put upon the market now, physicians can bear the fact in mind. Cinchonidia is the least powerful of the four alkaloids.

A Case of Poisoning by Chlorate of Potassium.—J. K. Boude, M.D., of Carthage, Ill., writes: "A healthy, robust girl, aged two years and eight months, gained access to a bottle of chlorate of potassium, and ate about three drachms of the crystals. As she had partaken of food a short time previously, and drank largely of water immediately afterwards, no symptoms of poisoning showed themselves for two hours, except that she complained of a pain in her stomach about half an hour afterward, which was supposed to arise from indigestion, and was treated with paregoric.

Two hours after she had ingested the drug, she vomited very freely, ejecting from her stomach the food and water that she had taken. She passed from her bowels at the same time a large quantity of greenish mucus, followed by a clear mucus. After this she became much prostrated, with a feeble pulse and a bluish, ashen hue of countenance. It was not discovered until this occurred that she had taken so much of the drug; and a physician was then called in.

Under the use of alcoholic stimulants the prostration soon passed off, and she commenced playing, and continued to do so for more than two hours; but she seemed to be in a state of excitement, and played boisterously.

She then slept for two hours, and on waking, asked for water and ate some. She seemed very restless, and her countenance still had the bluish appearance.

At 8 P.M., eight hours after she had taken the drug, she vomited again, and became very much prostrated, and was thought to be dying; but she again rallied under the use of stimulants. The matter ejected was simply the water and food she had taken. She slept tolerably quietly until midnight, asking for water frequently; at that hour her bowels moved again, the passage being greenish water and slime, after which her extremities became cold, and the pulse became imperceptible at the wrists. Stimulants were freely administered, but without effect. At 2.30 A.M. she vomited a large quantity of water, after which she sank very rapidly, and died quietly at 2.45 A.M., just fifteen hours after she had taken the drug.

"She complained but once of pain in the stomach and bowels, although frequently asked. During the first part of the night her heart beat with great force, so as to jar the hand when placed over the precordial region, and her pulse was full and bounding. The urinary secretion was increased during the afternoon, and seemed irritant to the bladder; and there was no suppression nor abnormal appearance of the urinary secretion."

The Sickness-Rate in Wisconsin.—The proportion of sickness to death in Wisconsin, as given by the State Board of Health, is fifteen to one. The rate usually given for a population is twenty-seven to one. Either the returns are incomplete, or the Wisconsin doctors treat their patients very vigorously.

Prof. Virchow has become a member of the Society of Americanists, an archæological association which devotes itself to studying the pre-Columbian history of the American continent.

Alcohol in Brain Tissue.—According to Dr. Maurice Perrin, the brain of a dog killed while completely intoxicated contains two per cent. of alcohol. Dr. Perrin does not state that the same proportion exists in man. Applying the figures given, however, it might be inferred that one-tenth of the alcohol that a man drinks unites with his cerebral tissues.

Claude Bernard's Treatise on Anatomy.—This much-talked of work has been curiously disposed of. The privilege of publishing it in the future was sold at auction in the office of a Paris notary on the sixth of October. The starting price was twenty thousand francs for the letter-press and five thousand francs for the illustrations.

Medical Women.—Dr. Rosa Well, a young lady from Vienna, has been appointed by the Faculty of the University of Bern, assistant lecturer to Professor Pflüger in the branch of ophthalmology. Woman has been said before to have made a specialty of the eyes, and her labors are now receiving a scientific recognition.

Rabies.—Canine rabies can be transmitted to the rabbit; and M. Gattier, of Paris, has taken advantage of this fact to study the effects of antidotes to the poison. None have been as yet found. The possibility of inoculating the poison in the rabbit, however, affords a convenient way of testing the question as to whether a dog is rabid or not.

Laryngeal Phthisis.—At the last meeting of the British Medical Association, Dr. Morell McKenzie read a paper on this subject, which showed that either our English brethren are much behind us in the knowledge of this affection, or the disease has a different course in New York. His conclusions were: (1) that laryngeal phthisis was due to the presence and subsequent breaking down of tubercles in the mucous and submucous membranes; (2) that laryngeal phthisis is essentially a secondary phenomenon, and always occurs as a sequel to pulmonary phthisis; (3) that the prognosis is always unfavorable, the ordinary duration of life after the throat symptoms have become troublesome being from twelve to eighteen months.

None of these conclusions, we believe, are accepted in toto by the best American laryngologists.

Rectal Hemorrhage in Infancy.—Dr. A. W. Bell, of Moodus, Conn., writes: "In a recent number of the Record I notice an article from Dr. Manley, of Lawrence, Mass., on 'Rectal Hemorrhage in Infancy.' I was reminded, by reading it, of two similar cases of my own. On September 23, 1875, I attended Mrs. D—— in her first pregnancy. On the day following the confinement, the child vomited blood and passed the same per anum. I made no record of the case at the time, and do not now remember the treatment; however, the child died on the morning of the 25th. At the post-mortem, a spot in the stomach was found near the pylorus, from which we supposed the blood to have originated. The day previous to the one on which the mother was taken in labor, she fell backward from a chair on which she was standing, and sat down on a door-sill. That night she was taken with pain, which continued for forty-eight hours without uterine contraction, and which resisted all measures used for its relief. At the end of this time the uterus contracted, and the child was delivered within twelve hours.

The second case I was called to see when the child was three days old, on October 25, 1878. In this case there was no vomiting of blood. I prescribed gallic acid internally, but the child lived only two hours after. There was no post-mortem."

Virchow as a Magician.—Prof. Virchow, while engaged with Dr. Schliemann in making excavations

at Hissarlik, Asia Minor, found several of the workmen suffering from an obstinate fever. He took them in charge and cured them. His reputation as a magician was at once established, and in a short time the sick from all the country round flocked to him, so that he had a clinic each morning in front of the wooden shanty where he slept. Before leaving he had dug a deep hole, into which he descended every day with a candle for purposes of exploration. All his movements were watched by the admiring crowds. When he went away the hole became filled with water, and now it is called by the people "Virchow's Well." Every day the sick are brought to it, and drink or wash in the healing fluid. A whole country consider Virchow the greatest magician that ever lived.

THE ENGLISH NAVAL MEDICAL SERVICE.—At a recent competitive examination of candidates for medical commissions in the Royal Navy, ten candidates presented themselves. Three were declared physically unfit; all the rest passed the examination. This presents a marked contrast with the naval examinations in this country, to which there are often thirty or forty applicants for two or three vacancies.

ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS. This association held its annual meeting at Baden-Baden, during the week from Sept. 18th to Sept. 24th. The work was done in twenty-three sections. Among the prominent medical contributors were Profs. Jürgensen, Benedikt, Erb, Lücke, and Eulenberg.

MEDICINE IN LOUISVILLE.—There are in Louisville, according to the *Medical News*, five medical journals and four medical colleges; and we are informed that there are still from ten to twenty members of the profession who haven't a professorship. Two of the colleges which claimed to be separate, but occupied the same building and were run by one faculty, have now openly separated and have each its own building and professors.

CHOLERA IN INDIA.—There is a severe epidemic of cholera in British Burmah.

PILOCARPINE IN ECLAMPSIA.—Dr. Bidder reported in the *Vienna Medico-Chirurgical Review* of October, 1878, two cases of puerperal eclampsia cured by the use of pilocarpine. The attacks occurred both before and after delivery. The remedy was given in doses of about three grains; chloral was given at the same time, however.

FRENCH ASSOCIATION TO PREVENT THE ABUSE OF TOBACCO AND ALCOHOL.—An association with the above name has been organized in Paris, M. Frederic Passy being President. A prize of 200 francs and a medal is offered for the best work showing the evil effects, moral and physical, of the abuse of tobacco and alcohol.

A NATIONAL BUREAU OF VETERINARY INSPECTION.—At the annual meeting of the American Veterinary Association, held recently in this city, a proposition to establish a National Bureau of Veterinary Inspection was made. It was proposed that the bureau have similar powers, as regards animals, with those possessed by the National Board of Health. The disease which, it is thought, more especially calls for such an organization is pleuro-pneumonia. It is urged that recent events have shown how valuable it would be to large commercial interests to have a central bureau that might keep cattle dealers and shippers constantly informed as to the prevalence of contagious diseases. Such an arrangement would prevent panics and render impossible the prohibition of American cattle by European governments upon mere sensational reports.

It is, on the other hand, said that such information can be secured without government aid. Furthermore, the present status of veterinary medicine is so undefined that a National Bureau would not have much more of a legitimate professional basis than a National Bureau of Barbers to keep themselves informed upon sycosis. There is in this country only one veterinary college which exists under legislative sanction, and which can grant genuine diplomas. Veterinary practitioners, therefore, are composed of three classes: persons who have graduated from regular foreign and the one regular home school; persons who have graduated from other home schools and have received diplomas which are virtually only certificates; and, third, persons who have had no regular education whatever.

It is feared that the establishment of a National Bureau out of these elements would produce endless quarrelling without securing any valuable results.

DR. E. S. GAILLARD, the distinguished editor of the *Richmond and Louisville Journal*, and *American Medical Bi-Weekly*, has removed to this city, where he will reside in future. His journals will also claim New York as their abiding-place. With best wishes for his success, we extend to him, on the part of the profession here, a hearty welcome.

TRACHEOTOMY FOR SAND BURR IN TRACHEA.—Dr. J. B. Hibben, of Topeka, Kansas, writes: "On Saturday, August 27th, I was called, in company with Drs. Sheldon and Gibson, to see a boy of six years. Upon examination, found that he had, two days previous, while playing with a tin whistle, drawn into his trachea a large 'sand burr,' which produced severe coughing, with partial asphyxia, having almost complete aphonia and great difficulty of breathing. We found mucous râles in the lungs, with diaphragmatic breathing; being confident that the foreign body was still in the trachea, the child was etherized, and tracheotomy performed, which permitted free and easy breathing. The foreign body not presenting itself at the opening, a tracheotomy tube was introduced for half an hour, then removed, and a small, soft sponge-probang introduced through the wound upward, dislodging the burr and pushing it forward into the mouth, from which it was easily removed. The patient made a rapid and favorable recovery, the wound healing by first intention."

FATAL RESULT IN THE TREATMENT OF POPLITEAL ANEURISM WITH ESMARCH'S BANDAGE.—When a new surgical procedure is introduced, the cases in which it fails should not be overlooked, and we therefore make note of one that is reported in the *Lancet* of July 26th. A patient, aged forty-eight, was admitted to St. Bartholomew's Hospital, suffering from a popliteal aneurism of eight months' standing. He was under the care of Mr. Timothy Smith. He was treated by Esmarch's bandage, both with and without chloroform, with the result of twice stopping the pulsation, which, however, soon returned. After waiting a few days another trial was made. The elastic bandage was applied below and above the tumor, which was itself covered by a flannel bandage. These bandages were removed in an hour, and digital compression and the tourniquet applied for three hours. Then the elastic bandages were reapplied for an hour and a half, and at the end of that time, the tourniquet being put on, they were removed, and the tumor was found to be solid. In a short time, however, pulsation returned. Bandage and tourniquet were again applied, until the leg was too tender and painful for further treatment of this kind. The tumor continuing to pulsate, the femoral was ligated; secondary hem-

orrhage occurred, and it was ligated again, but the man died with evidences of septicæmia.

The chief peculiarity about the case, pathologically speaking, was the unstable nature of the clot obtained by compression. The man had heart disease, and had had syphilis, and these were probably factors in producing the result.

Lime-Water as a Solvent of Blood Clots in the Urinary Bladder.—Dr. William A. Byrd, of Quincy, Illinois, writes: Dr. B. W. Richardson and other writers have advocated systemic alkaline treatment for heart-clot, and some of the German writers have proposed and used lime-water as a solvent of false membrane in the air-passages, but I believe that Dr. J. H. Ledlie, of Pittsfield, Illinois, is the first to apply lime-water locally to blood-clots in the bladder to cause their dissolution. Having perfect faith in Dr. Ledlie's ability, and considering the treatment to be of great value in cases of blood-clot, is my excuse for publishing his letter to me, that the reader may judge of its value:

"Pittsfield, Illinois, Sept. 19, 1879.

"Dear Doctor—I have a patient, a man who for years has suffered greatly from hematuria. The blood comes from the kidneys. At times the hemorrhage is very profuse, and clots in the bladder. Heretofore I have always succeeded in washing it out with a double-current catheter. Last Saturday I was called to see him. He had lost a great quantity of blood, and was suffering very much from vesical tenesmus. I passed my catheter and injected a stream of water. All at once the stream returning would stop. By withdrawing the instrument I could start it again, but he insisted there was a foreign body in there. I must say, that the previous day he had experienced excrutiating pain along the course of the ureter. I suspected stone and sounded him, but could not discover one; still my instrument touched something. I repeated the washing out of the bladder until the water returned colorless. I then made up my mind that there was a clot, with the coloring-matter washed out; and recollecting your account of dissolving the false membrane with lime-water, I threw in one-half pint of lime-water, allowing it to remain half an hour. When it passed off it resembled what you describe as the appearance of the false membrane after lying in lime-water. He also passed a large piece of fibrin which had evidently been acted on by the lime-water, although not sufficiently so to dissolve it entirely. Had it not passed away, I am convinced another injection would have dissolved it entirely. He is now quite comfortable, all sense of a foreign body in the bladder having passed away. J. H. Ledlie."

Anæsthesia from the Combined Action of Chloroform and Morphine.—A review of the present state of evidence upon this question has been given by Dr. Guibert, of Paris, in *Le Concours Médical*. The French surgeons consider that all the danger in the use of chloroform comes from producing too profound unconsciousness. It has been the aim of a number of experimenters to bring about in every case a condition of anæsthesia, with consciousness still continuing; such a condition as occurs not very rarely during ordinary administrations. The administration of morphine before the chloroform tends, it is thought, to secure this result.

It is claimed further, that morphine employed before chloroform diminishes the irritation to the air-passages, caused by the anæsthetic vapor, an irritation which, by its reflex influence upon the heart, may prove dangerous. Finally, it is asserted that when morphine is given before the chloroform the danger from shock is much lessened, and that the frequency of vomiting is also diminished. The procedure followed by the believers in these statements is, to give a quarter of a grain of morphine; then in ten or fifteen minutes to administer the chloroform. Analgesia is produced sometimes within two minutes.

It should be remembered by American practitioners who use ether, that death has occurred from using morphine in connection with that anæsthetic.

Medical Expert Testimony: its Deficiencies.—The *Boston Medical and Surgical Journal* publishes the first part of a report upon this subject made to the Massachusetts Medico-Legal Society in June last. The committee appointed to examine the subject included Attorney-General Marston (chairman), and Prof. H. P. Bowditch. Their report was only partial, and embraced a statement of the evils that encumber the present system of medical-expert testimony. These are: first, a most conspicuous partisanship, even in questions of a purely scientific character, the experts being practically retained upon one side or the other, and expected to help that side; second, the employment of pretenders and charlatans; third, the fact that the expert's compensation often depends upon the result of the trial; fourth, a lack of integrity on the part of the expert, even when he is a person of ability. Finally, although there are experts who are both honest and able, there is no system by which their services can be equally applied, for only the party which has money can secure such persons, and the other side must get what they can. The committee have been granted further time to devise measures of reform for this condition of affairs.

A New Medical College has been organized at Little Rock, Arkansas, to supply a want long felt.

Diphtheria in Lower Animals.—In a house at Ogdensburg, N. Y., five children were ill with diphtheria. Three kittens who had been playing with them from time to time took the disease and died. Post-mortem examination showed diphtheritic membrane in their throats.—*Medical and Surg. Journ.*

Chlorosis; Treatment with Oxygen and Iron.—The researches of M. Hayem, as given in *Le Concours Médical*, covering several years, demonstrate that in chlorosis there is not only a diminution in the number of red blood-globules, but an individual alteration of each globule. This alteration consists of a diminished amount of the coloring matter hæmoglobin. Iron has a specific action in removing this condition.

As in chlorosis there is generally loss of appetite, and as the preparations of iron stimulate the appetite, it has been claimed that the good they do is largely through this means. To disprove this, M. Hayem treated a number of patients with insoluble preparations of iron, without relieving the disease. He then treated other patients with inhalations of oxygen, giving about three gallons a day. The oxygen had a marked effect in stimulating the appetite and digestive functions. The patients ate enormously, and increased in flesh; nevertheless, they preserved their pallid and anæmic appearance. The microscopic appearances of the blood continued the same, and on suspension of the oxygen they soon relapsed to their former condition. M. Hayem concludes that iron alone can restore the red blood-globules to their natural condition, and that oxygen is a most valuable adjuvant in the treatment.

Original Lectures.

A Clinical Lecture on URINARY INFILTRATION AND ABSCESS.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS

Gentlemen: -I have been able to show you in the past month several cases of urinary abscess and extravasation. They have, however, varied so considerably in their clinical appearances, that it is proposed to-day to ask your attention to certain points connected with this subject, somewhat more in detail than has yet been done. You have seen in Ward O a number of cases in which an oval tumor, generally without fluctuation, presented itself in the median line of the perineum, with its longest diameter antero-posteriorly, sometimes very tender to the touch, and varying in size from a small marble, in one instance, to a hen's egg, in several others. Nearly all of these were associated with stricture of the urethra, and after incision allowed urine to flow out through the wound. In one case, however, the tumor resulted from a laceration of the urethra produced by a kick in the perineum.

In the same ward, and only recently, you saw a case wherein was presented a scrotum swollen to the size of a child's head, shining from distention, and of a pinkish, semi-translucent hue, which had followed, as the patient said, one of these swellings in his perineum. You were, however, more struck with the appearance presented by Thomas Graham, who entered the hospital on the 25th of August, having some twenty-four hours previously been kicked in the perineum. In this man we found not only the scrotum distended enormously, but that its surface was marked by greenish patches of commencing gangrene, and that upon the lower abdominal wall were to be seen several streaks of redness. Palpation also revealed the emphysematous crackling of the gases evolved in the rapidly progressing inflammation and tension, and, you will recollect, that, notwithstanding the free incisions resorted to, a fatal termination speedily ensued.

Some of you may also remember in this connection the interesting case that came in last spring to my wards in the Roosevelt Hospital, where the patient, who had a tight stricture, had also a large tumor in the perineum, and two good-sized patches of gangrene, accompanied by emphysema, on the abdomen, the lower part of which was moderately reddened, and in one or two places gave evidence of fluctuation. But, and be kind enough to mark this, there was no involvement of the scrotum whatever. The perineal tumor could be felt running forward beneath the scrotal tissues, and on incising it several ounces of clear urine were discharged from it. The finger was then passed into the cavity, which was bounded by the sheath of the penis, and carried upward nearly its full length, and after freely incising the gangrenous patches on the belly, and giving vent to a quantity of the same almost unaltered urine which had dissected up the common fascia, a second finger introduced downward could touch the finger introduced from the perineum at the left side of the penis, near the scrotum. This case terminated favorably.

Lastly, I beg to recall to your minds the patient who was knocked down on the elevated railroad by an engine, the blow being received on the posterior part of the perineum, the man being at the time in a stooping position. In his case, you will recollect, there was hemorrhage from the urethra and inability to pass water, though the house-surgeon passed in a catheter full length without difficulty, but without evacuating any urine. This failure was thought to be due to the eyes of the instrument being filled up with clotted blood, and, finding some dulness on percussion over the pubis, he then resorted to aspiration, and withdrew some five or six ounces of bloody urine. When I saw the man at my visit, I thought from the latter fact and from the tenderness of the abdomen and tympanites that were coming on, with the other signs of peritonitis, such as vomiting, etc., that we had to deal with a case of ruptured bladder, and it was therefore decided that a perineal cystotomy should be made, with, if necessary, a hypogastric opening into the peritoneum, for the purpose of washing out and draining this latter cavity, after closure of the rent in the bladder, if possible, as has lately been done by Mr. Heath, of London. But death resulted unexpectedly during the administration of the ether, from an infrequent cause, viz., from impaction of food in the larynx in the vomiting which is often induced by the anæsthetic when given upon a full stomach.

No autopsy was allowed, but I was permitted to make an incision in the hypogastrium. I found thereby the explanation of the injury. For, after cutting through the muscular planes, I came into a cavity containing over four ounces of bloody urine, but beyond this I felt and soon opened into a partly distended bladder containing eight or ten ounces of clear urine. The aspirator-needle, therefore, had not gone into the bladder, but into a subperitoneal cavity. On passing my finger into the bladder, I could not feel anywhere any rent; its walls were in tact. While my finger was yet within the organ, I had a catheter introduced through the penis, and recognized that it could be passed to the left and also to the right of the bladder, into spaces that were probably continuous with that in the hypogastrium.

These numerous cases show, clinically, that extravasation of urine can occur in four ways:

1. Localized as a centrally situated tumor in the perineum.
2. As a tumor of considerable size in the perineum, with diffusion of urine over the abdominal walls without involving the scrotum.
3. Diffused into the scrotal and abdominal tissues.
4. Diffused under the pelvic fascia or peritoneum.

Now, to understand these several varieties, certain anatomical facts must be recalled, and this is in reality the point of my remarks. Generally, in the works on anatomy in use here and in England, the description of the fascia of the perineum is given in this way—I quote now from Gray: "The deep layer of the superficial fascia is thin, aponeurotic in structure, and of considerable strength, serving to bind down the muscles of the root of the penis. It is continuous *in front with the dartos of the scrotum*; on either side it is firmly attached to the margins of the rami of the pubes and ischium, external to the crus penis and as far back as the tuberosity of the ischium; posteriorly it curves down behind the transversus perinei muscles, to join the lower margin of the deep perineal fascia."

But this account is erroneous, and in order that you may understand the course of the perineal fascia in connection with extravasation of urine, I must beg you to follow me in these diagrams which I now show you. No. 1 represents schematically the points

which you will find only clearly detailed in the more recent works on genito-urinary surgery. No. 2 is taken from Tillaux.* I do not mean to say that Tillaux re-

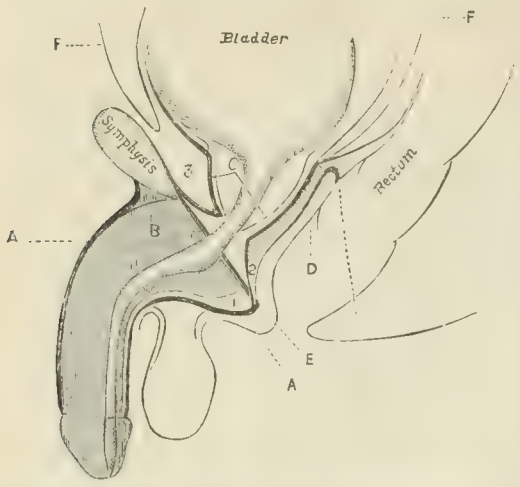


FIG. 1. Representing the fascia involved in urinary infiltration (partly schematic). 1. Locality of extravasation of urine anterior to the triangular ligament; 2. Locality of extravasation of urine posterior to the triangular ligament; 3. Locality of Subperitoneal extravasations; A. Buck's fascia, or deep layer of the superficial perineal fascia; B. Triangular ligament, anterior layer; C. Pelvic fascia forming posterior layer of the triangular ligament and covering *upper* surface of the levator ani muscle; D. Fascia (ischio-rectal or anal) lining *under* surface of levator ani muscle, the dotted line indicates the ischio-rectal fossa; E. Tendinous centre of the perineum; F. Reflexion of peritoneum, attached posteriorly to the pelvic fascia.

vealed these facts to us. They were known long, long ago. Velpeau, in 1826, correctly described the distribution of the fascia.† And so did Richet‡ in 1842. But it was not until it was demonstrated to us by Dr. Buck, of this hospital, in 1846,§ that it became generally known. After that period the French surgeons described it as Buck did, or very nearly so—Jarjavy, one of the most distinguished of their anatomists, giving the American surgeon due credit for his investigations. Since then it has been regularly and correctly delineated by Cruveilhier and others of that school, but in England very little attention has been given to it. For instance, Thompson,‖ in his work on stricture of the urethra, that fountain whence we all draw, speaks of the forward continuation of it as Gray does, and erroneously explains the course of such infiltrations and abscesses. On our side of the water, however, Bumstead quotes Dr. Buck's description in extenso, and Van Buren and Keyes describe it carefully. Now let us return to the diagram, and see wherein this differs from Gray. Notice the black line indicating the deep layer of the superficial perineal fascia. Instead of being lost in the scrotum, it runs forward from its junction with the triangular ligament, covering over all the perineal muscles, except the sphincter ani, and is continued along anteriorly as far as the glans penis, being closely applied to the sheath anterior to the scrotum. Or, in Dr. Buck's language, observe that "the suspensory ligament from above, and the perineal fascia from below and laterally, form one continuous membrane with the sheath, inclosing the corpus cavernosum in its cavity, and embracing the corpus spongiosum urethræ between two layers, one of which passes above and the other below it."

Here we have a satisfactory explanation of the numerous perineal tumors which you have seen, and which were embraced in our first and second divisions. The small extravasation resulting, say, from the giving way of the urethra, behind a stricture from either ulceration or from injury by an instrument, escaping from an opening thus made at its usual locality anterior to the triangular ligament, passes into this pouch that has just been described, and is there held for a time, when by distention or by inflammatory softening, the fascia gives way and allows the urine entrance to the scrotum and to the abdominal walls.

It occasionally happens that an extravasation forces itself into the tissues of the bulb of the corpus spongiosum so rapidly, or so extensively, as to interfere with the circulation of the glans, and to produce the characteristic gangrenous spot there.

But I must ask you now to consider for a moment this second figure. From it you will see that while the pouch or compartment formed by this forward fascial prolongation stretches from one pubic bone to the other, yet it is divided into three portions by the continuation of a part of the fascia around the bulbous part of the corpus spongiosum to the triangular ligament. In the outer compartments are to be found the erectores penis muscles. I also show you this dissected specimen, in which it will be perceived that I have forced some melted tallow under this fascia, just in advance of the transversus perinei muscle of one side.

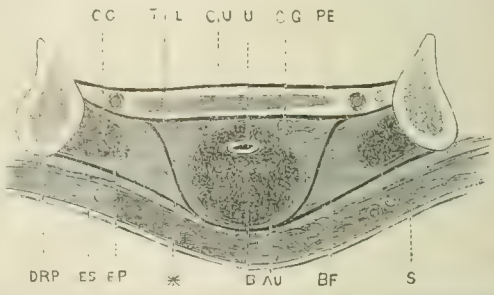


FIG. 2.—Representing a horizontal section of the perineum—after Tillaux. BF. Buck's fascia; * Fascia investing the bulb of the corpus spongiosum (B), and dividing the enclosure into a middle and two side compartments; U. Urethra; CG. Cowper's glands; AU. Accelerated urinæ muscle; TL. Triangular ligament, anterior layer; PF. Pelvic fascia or posterior layer of the triangular ligament; CU. Compressor urethræ muscle; CC. Corpus cavernosum; EA. Erector penis muscle; DRP. Descending ramus of the pubis; FS. Fascia superficialis communis; S. Skin.

The fascia, although a thin one, is quite strong, and you can plainly see the colored injection beneath. It runs as far forward as the anterior junction of the scrotum, and is confined, you see, to the central part for the cavities containing the erectors have been opened and are free from the injection. Over the bulb an incision has been made, and you will see that the tallow has lifted up the accelerator urinæ, and thus the resisting power of the fascia is increased.

The explanation of the case of extravasation, where there was a tumor in the perineum and where there was at the same time invasion of the abdominal wall and not of the scrotum, is to be found in the statement of Richet, who, in alluding * to Dr. Buck's

* Traité d'anatomie topographique, p. 1035.
† Velpeau; Traité d'anat.-chirurg., vol. ii., p. 269.
‡ Annales de la Chirurgie. 1842, t. vi. Traité d'anatom.-chirurg., 1866, 3d ed., p. 699.
§ Trans. Am. Med. Assn., vol. i.
‖ Stricture of the Urethra, 3d ed., pp. 31, 291, 294. So also does Gross: Urinary Organs, 1876, and Voillemier, 1868, p. 405.

* Op. et loc. cit.

investigations, differs in two particulars: first, that the fascia is not distinct up to the glans penis, and in this, as before stated, I agree with the French observer; and second, that, instead of Buck's fascia, as it is called, completely investing the penis, this fascia in the neighborhood of the suspensory ligament thins very much, and terminates in a cellular tissue continuous with and undistinguishable from the fatty and cellular layer of the hairy pubes.* It was by this route, therefore, that the urine gained the abdomen without involving the scrotum.

If I have not fatigued you with these minutiæ, I would now like to ask your attention, before explaining to you the last cited case, to the posterior layer of the triangular ligament in our first diagram. There you will see that this layer is in reality formed by the prolongation of the pelvic fascia forward from the prostate, which fascia, moreover, covers in *superiorly* the levator ani muscle. The inferior border of this posterior layer of the triangular ligament, you will see, terminates on a line with the tendinous centre of the perineum; from this point starts, moreover, backward and upward, a thin, weak, and in some places an imperfect fascia, which lines the *under* surface of the levator ani, and runs up to the top of the ischio-rectal fossa. Hence, you can appreciate that any extravasation of urine, or abscess formed behind the anterior layer of the triangular ligament—that is to say, in the erroneously called cavity of the triangular ligament, will, from inability to pass forward from the great resistance there found, proceed backward through the posterior layer, here much thinner, and then into the substance of the levator ani, and thus readily find entrance to the ischio-rectal fossæ, where it may be for a time unrecognized, or emerge at the anus.

Cases of this sort are very rare—more so than most of you would imagine; for doubtless the idea is prevalent with you that strictures are commonly found in the membranous portion of the urethra, and that the rupture or ulceration that initiates an extravasation, being generally behind such narrowings of the canal, infiltrations or abscesses must of necessity occur behind the anterior layer of the triangular ligament. This is a wrong impression, if it exists, for the membranous urethra is rarely, if ever, the site of stricture; it on the contrary, it is the bulbous urethra, for one inch anterior to the triangular ligament, that is the favorite site of tight strictures, and the nearer one approaches the bulbo-membranous junction the less frequently is a stricture encountered. Not only is this true of inflammatory strictures, but also of traumatic strictures.

This latter fact has recently been clearly demonstrated for us by a French observer, Terillon by name, in an excellent thesis on Ruptures of the Urethra.

I have myself never seen any tumor that presented clinical evidences of being between the layers of the triangular ligament, and, indeed, would be inclined to doubt the accuracy of those who describe such, mainly from the intimate adhesion that exists between the layers of this ligament. I should expect to find in such a case a small deep tumor close to the anus (for the tendinous centre is less than half an inch from this opening), and also by the finger introduced into the bowel to readily recognize the swelling in the easily felt site of the membranous urethra.

Practically, when a urinary abscess or infiltration occurs behind the triangular ligament, its starting-point is generally a false passage made by incautious instrumental manipulation. An instructive illustration of this was seen in a case that occurred a short time since in the Roosevelt Hospital, in a patient who shortly after his entrance complained of retention of urine, which he said had followed the use of dilating bougies used within a couple of weeks. He had had repeated chills, but no perineal tumor was to be detected. After aspiration had been resorted to several times, a fine filiform bougie was introduced into the bladder, and external perineal urethrotomy performed rather than internal urethrotomy, as a small amount of œdema and softness over the side of the prostate led us to expect at the same time to meet with an abscess. In fact, after incising the urethra in front of the stricture, it was found that the bougie had not gone through the latter, but alongside it in a false passage, through which pressure in the rectum forced out a few drops of pus. This path was enlarged backward and allowed the escape of several ounces of pus from a cavity into which the finger passed well up toward the bladder, and traced out clearly the surface of the partly denuded rectum. A drainage-tube was inserted into the pus-cavity after the section of the stricture had been completed without a guide—and thus making the second time I have ever been compelled to resort to perineal section.

Finally, gentlemen, the explanation of the case of subperitoneal extravasation is, that the injury inflicted, coming as it did from behind forward, tore through, in all probability, the membranous urethra and its superior investment of the pelvic fascia, and thus opened up a way underneath the peritoneum for the fluid to pass (indicated by the figure 3 in diagram No. 1). This injury is an unusual one, and I regret that the absence of an autopsy prevents any positive statement as to the course of the urine, for, had I not had the opportunity to explore the bladder, I should have, as before stated, thought it a rupture of this viscus. Whether the laceration had been caused by a fracture of the ramus of the pubis, which is the usual cause of lacerations in the membranous urethra, could not be determined. Remember, however, that subperitoneal infiltrations are most commonly the result of either a lesion of the bladder or possibly from a too extensive incision in the prostate in lithotomy.

It will be understood by you all, I trust, that the more minute the opening is in the urethra, or the more slowly the urine is forced out of its normal channel, the more likely is the inflammatory process to limit the extent of the infiltration, and to confine it within the bounds of the ordinary urinary abscess. It is in the rupture of a urethra with the associated great pressure of a distended bladder that we are most apt to see the rapid spreading of the urine, mapping out for us distinctly the enclosing fasciæ. Finally, these remarks may be summarized in this way: first, that nearly all, if not quite all, perineal extravasations occur from ruptures anterior to the triangular ligament; and second, that a fistulous opening anterior to the line of the tuberosities of the ischia comes, in all probability, from the urethra, and when behind this line, from the rectum.

* Tillaux says, "is imperfect on the dorsum of the penis at the level of the suspensory ligament, p. 1110.

Richet says that it is by this route that the urine in retention goes to saturate, but does not infiltrate these tissues by perforating Buck's fascia or scrotum.

"The insertion of this part to structure appears to stretch from the prostate at the point where it is less resistant, which [illegible] point [illegible] the triangular ligament, except in the middle line [illegible] cross at this point to the scrotum, as was found in the membranous urethra."—Thompson: Stricture, 3d edition, p. 98.

Surg. Med. Chir. Trans., xxxvii., 1854, states that in most cases of urethral rupture the urine does not escape in front of or behind the posterior to the triangular ligament.

Powell, Manchester Medical Reports, p. 115, says, concerning the rupture of urine, that the urine passes into the cellular tissue of the membranous region, and that the extravasation takes place always into the "inferior pocket of the peritoneum" (Buck's fascia).

Original Communications.

REPORT OF THE RESULTS IN THIRTY-ONE CASES OF PHTHISIS

TREATED AT AIKEN, S. C., DURING THE SEASON 1878–79.

BY W. H. GEDDINGS, M.D.,

AIKEN, S. C.

THE climate of Aiken has been often and fully described, but thus far the results of treatment at that well-known health-station have never been laid before the profession.

The publication in the MEDICAL RECORD last spring, by Prof. Loomis, of a few cases successfully treated in the Adirondack region, determined the writer to carry out a resolution made several years ago, to publish each year the results in all the cases of consumption that came under his observation in the course of the season. In preparing these cases for the press, it was found, however, that some of them were so imperfect—the patients presenting themselves only once or twice—that their publication would be only a waste of space. The number thus omitted is quite considerable, constituting the large majority of cases presenting themselves for advice. The case histories are taken from my daily record; and not being intended at the time of their entry for publication, the symptoms given are, in many instances, more or less incomplete. It is thought, however, that they are sufficiently full to remove all reasonable doubt as to the diagnosis of the disease, its stage of development, and the results of treatment. Being exclusively private patients, the writer has not felt at liberty to give their names, or even their initials; but they may, in nearly every instance, be recognized, and, if necessary, verified by the name of either the attending or of the consulting physician, which, as a rule, is given immediately after the number of the case. Some few of the cases have been under observation for several years; while others, and by far the larger number, were treated for a few months only. It is needless to state that the greatest care has been taken to make the report as correct as possible; and to secure this end, many cases were omitted, in which, although they presented general symptoms sufficiently marked to warrant their being classed as phthisis, the physical signs of that disease were either wanting or of a doubtful character. As this class usually represents cases in the initial stage, which are, of course, more amenable to treatment than those farther advanced, their omission materially reduces the number of successful cases, a fact which should not be forgotten in estimating the general result.

CASE I.—Male, 41 years, patient of Dr. Paddock, of Lenox, Mass. Disease began with bronchial catarrh in the winter of 1877. Patient visited Aiken for the first time in Jan., 1878, previous to which he had lost 14 lbs.—his weight, when he arrived in Aiken, being 122 lbs. He had also had occasional night-sweats. At that time there was dulness on the left side, extending from the clavicle to the fourth rib in front, and half down the scapula behind, the respiration being bronchial in character. Up to the 21st of March of that year, he had gained 4 pounds in weight, and his general appearance was much improved. The expectoration was greatly reduced in quantity. He passed the summer at Lenox, attending to his business, which was that of a grocer.

Dec. 31, 1878.—Patient's weight is 126 lbs., color healthy, pulse 92, temperature 98¼°; expectoration half an ounce, some of which sinks. On the left side the dulness extends from the clavicle to the third rib, showing a diminution in the extent of the infiltration since the first examination. On the back there is no change in the area of dulness. Expiration prolonged. Bronchophony. Patient neglected to take care of himself, ceased taking the remedies prescribed, and for a time lost ground.

April 21st.—Dulness in front unchanged, but behind it is reduced to a small space above the spine of the scapula. Respiration bronchial. General health much improved. A letter received a few weeks after his return home states that the improvement has continued.

CASE II.—A middle-aged male from Washington, D. C., a patient of Dr. S. C. Busey, of that place. This case, which has pursued a very chronic course, dates from boyhood; has always had more or less trouble with his respiratory apparatus. He consulted me for the first time in December, 1875. He then had an infiltration of the right lung, as evidenced by dulness between the scapula and vertebral column. The patient had just returned from Florida without having derived any benefit from his residence there.

Several years ago he contracted a croupous pneumonia, involving the affected lung; was for a time quite ill; but, after resolution had taken place, there was no change in the size or character of the chronic infiltration. He has been an annual visitor to Aiken for the past five or six years, and always derived much benefit from its climate; but this year (1879), being in Savannah, he concluded to give Eastman a trial. While there he had a succession of hemorrhages, which reduced him to such an extent, that Dr. Busey was summoned from Washington to him. Yielding to the urgent entreaties of the patient, Dr. B. had him conveyed in a special car to Aiken. He had one or two hemorrhages on the way, and, at the time of his arrival, was so prostrated, that he had to be brought on a bed from the cars to the hotel. His condition at that time was such as to cause his friends the greatest anxiety.

Jan. 19, 1879. Physical examination reveals dulness on the right side, extending over the supra-scapular and upper half of the infra-scapular region. Respiration bronchial, and at some points distinctly cavernous. On the left there is marked dulness behind, with prolonged expiration. He had but one hemorrhage after his arrival in Aiken, and from that time on, the course of the disease was one of very slow, but steady and uninterrupted improvement. For a long time he had to be rolled about in a chair, and many weeks elapsed before he entirely regained the use of his limb.

April 15th.—The patient is much improved, having gained in weight and strength. He can now walk about, and may be said to be as well as he has been during the past two years.

CASE III.—Male, 52 years of age, a patient of Dr. F. Donaldson, of Baltimore. Many years ago patient had rheumatism, with cardiac complication. Last July (1878), after taking a prolonged hip-bath for the relief of hemorrhoids, he had a severe chill followed by fever, which continued to recur until September, at which time he began to cough.

Jan. 24.—Pulse 112, temperature 102°. Over the left front there is diminished resonance from the clavicle to the fourth rib, with marked dulness under the

scapula of the same side. Breathing decidedly bronchial, with loud expiration. During the month of February was troubled with palpitations and pain in the cardiac region, and complained of great weakness and giddiness. No abnormal murmurs could be detected, but the œdema of the limbs in connection with the above symptoms indicated the existence of some serious cardiac lesion. There was some improvement in the condition of the patient until March 4th, at which time there was an exacerbation of the disease, with increase of fever, sweats, etc. Physical examination revealed dulness on the right side with bronchial respiration. The cardiac symptoms also became more troublesome. April 15th, there being no prospect of improvement, the patient was advised to return home.

Case IV.—A young lady from New Jersey; Dr. Hayes Agnew, of Philadelphia, consulting physician. The neck much disfigured with large cicatrices, the result of scrofulous ulceration of the cervical glands. Has lost flesh; lies on the left side.

Jan. 28.—Pulse 96, temperature 101¼°; diminished resonance over the upper portion of the right lung, with jerking, bronchial respiration. Feb. 26th.—Pulse 104, temperature 101⅘°. Dulness distinct under right clavicle, with audible expiration anteriorly as well as posteriorly. On the left side there is no dulness, but the respiration is bronchial in character. The patient gradually grew worse, returned home at the close of the season, and died in August.

Case V.—A middle-aged clergyman from Gloucester, Mass., a patient of Dr. Morrill Wyman, of Cambridge. Disease commenced with bronchial catarrh in April, 1878. Has had one slight hemorrhage.

Feb. 1, 1879.—The upper portion of the thorax on the right side is much depressed. There is an extensive area of dulness occupying nearly the whole front of the right lung. There is also dulness behind, but not so extensive as in front. March 7th.—Much improved, coughs less, but the expectoration continues profuse. Has a good color, and has gained eight pounds. March 13th.—Patient looks fresh and ruddy; pulse and temperature all but normal. Expectoration still profuse. April 9th.—Pulse 84, temperature, 98⅘°. Coughs much less, and the expectoration is reduced to a fourth of what it was a month ago. April 26th.—Pulse 84, temperature 99°. Has continued to improve; has gained four pounds since last examination. May 20th.—Had an attack of diarrhœa a week ago, which caused him to lose six pounds, three of which he subsequently regained. He now weighs nine pounds more than he did when he arrived in Aiken. There is diminished resonance, not amounting to positive dulness, extending from the clavicle to the third rib, over which region the respiration is normal, the expiration being barely audible. He coughs little, except in the morning, at which time he expectorates two or three drachms of muco-purulent matter.

Case VI.—A bright little girl of six or seven years, Portsmouth, N. H., who, being under the care of a homœopathic practitioner, consulted me only occasionally, so that her case history is more or less imperfect. The disease was the result of an attack of pertussis.

Nov. 6, 1878.—Pulse 120, temperature 99¾°. The right lung is infiltrated from the apex to the fourth rib, as evidenced by distinct dulness both in front and behind.* This patient did remarkably well until Feb. 1st, when she had an attack of bronchial catarrh. She recovered readily from this, and continued to improve until late in the spring, when she was lost sight of.

Case VII.—A married lady, patient of Dr. McBurney, of New York. Disease started with bronchial catarrh in Feb., 1877. Lost flesh, at first quite slowly, but, diarrhœa supervening, the emaciation progressed very rapidly.

Feb. 10th. Pulse 100, temperature 100°, in afternoon as high as 104°. Expectorates several ounces; is very anæmic, and has had but little strength. Physical examination reveals extensive disease of the left lung, with softening of tissue. The advanced stage of the disease, the high temperature and great emaciation, precluded in this case all hope of improvement. She remained a few weeks in Aiken and then returned to New York.

Case VIII.—A young lady, 21 years of age, from an adjoining county, in regard to whose case Dr. Hydrick, her medical attendant, kindly furnished the following history: "The patient came under my observation about one year ago. Her previous history is one of pulmonary disease of several years' duration; had hemorrhage in Oct. (1878). The family history is not good; her mother, sister and brother having fallen victims to pulmonary disease." The disease was ushered in with hemorrhage in the spring of 1877. Has had "asthma" since her childhood. After this attack she was ordered to Florida, but on reaching Charleston she consulted the late Prof. Geddings, who informed her that her native air was preferable. Under his treatment she improved, and remained in fair health until Oct. 1, 1878, when she had several hemorrhages and lost fifteen pounds.

Feb. 11th.—Patient is rather pale; pulse 110, temperature 100⅘°. Has night-sweats. On the right side there is dulness under the scapula, with feeble respiratory murmur and occasional bronchi. On the left the respiration is bronchial in character, with loud prolonged expiration. At the base of both lungs there are evidences of emphysema. March 15th.—Pulse 92, temperature 99⅘°. Patient looks much better. March 31st.—Patient returns home much improved, is stronger, has a better color, and coughs less. Has increased several pounds in weight. The dulness on the right side is of course still perceptible, but the mucous râles have entirely disappeared. On the left side, to the outer side of the heart, the respiration is still bronchial in character.

Case IX.—Male; patient of Dr. Büchler, New York. Had an attack of hæmoptysis in 1860, with cough of several months' duration, from which he recovered completely, and remained perfectly well until August, 1878, when he again commenced to cough.

February 18, 1879.—Patient has lost five pounds since the attack in August, and looks quite pale and sallow. Pulse, 104; temperature, 99°. On the left side, and to the left of the heart, the percussion sound is short, and the expiratory murmur prolonged. Over the back the respiration on that side is very harsh. On the right side there is dulness over the apex, the respiration being quite feeble.

March 4th. Color much improved; coughs less, and has gained one pound.

March 27th.—Has had slight attacks of congestion, with tingeing of the sputa, but now feels quite well.

April 23d.—Is stronger and expectorates less. The dulness, however, is much more distinct, extending on the right as low as the second rib.

April 29th.—Patient goes home improved in general health, but without any material change in the local symptoms.

* The symptoms afforded by auscultation were accidentally omitted.

Case X.—A married lady, patient of Dr. George C. Webber, of Millbury, Mass., who writes that "she has incipient trouble in one lung," and "that she has lost three sisters by phthisis."

February 24th.—Color pale; pulse, 120; temperature, 98⅘°. On the right side there is dulness on percussion below the clavicle, with bronchial breathing over the upper portion of the lung. Left side dull under the clavicle.

March 20th.—Pulse, 104; temperature, 100⅘°. Has gained seven pounds in weight, and is greatly improved in color. Left apex still dull. On the right side the dulness is still present, but greatly diminished in extent.

April 8th.—Has continued to improve; has gained two pounds additional during the past month, making a total gain of nine and a half pounds since her arrival in Aiken.

May 2d.—Pulse, 104; temperature, 99⅘°. Coughs and expectorates much less; weighs more than she ever did in perfect health. The area of dulness is still present, but the respiration is all but normal.

Case XI.—March 1st, a young man, eighteen years of age, a patient of Dr. F. Donaldson, of Baltimore. His father, two uncles, and an aunt had consumption. Has frequent attacks of hæmoptysis; has morning exacerbations of fever, and sweats at night. On the right side, the percussion sound is dull. The expiratory murmur is prolonged over the front and back. Vocal fremitus quite pronounced on that side. March 17th, no returns of the bleeding since the 8th; the morning paroxysms of fever have ceased to recur, the temperature never rising above 98⅘°; coughs only occasionally, then only after exerting the voice.

May 12th.—Goes home much improved; has had no return of the hemorrhages; has gained three pounds, and is much stronger.

Case XII.—A young German, a patient of my own, who removed to Aiken in 1874, with an infiltration of the apex of the right lung. He had had several attacks of hæmoptysis, and presented all the symptoms of the first stages of phthisis. He improved rapidly, but, disregarding my advice, he accepted a situation in a store, where the confinement soon brought on a return of the old symptoms. He abandoned his position, and after drinking the blood of freshly slaughtered animals for several weeks he regained the ground he had lost. Remarking his rapid improvement while drinking fresh blood, he was advised to change his occupation and become a butcher; but instead of this he unfortunately opened a bar-room, where the irregular life, late hours, and constant exposure to cold draughts, favored the development of laryngeal phthisis, with extensive ulceration of the vocal cords. He grew gradually worse, and at the close of the last season was apparently very near his end. The chronic course of the disease (seven years), and the repeated arrest of the process, led to the belief that, had he exercised common prudence, his life might have been prolonged many years, and that there was in his case even a fair chance for a permanent arrest of the process.

Case XIII.—This patient, a young lady from New Rochelle, was far advanced in phthisis when she arrived in Aiken; her appetite and digestion were very poor, and she was affected with chronic diarrhœa. Emaciation very marked; her complexion of that peculiar pale tint so often met in the advanced stages of consumption. The physical signs present were: extensive dulness over the right lung, with loud, moist râles on both sides, obscuring the other sounds. This patient held her own at Aiken, and subsequently went to Florida, where she died a few weeks after her arrival.

Case XIV.—A young girl of fifteen, from Adams, Mass.; Dr. C. W. Burton attending, and Dr. John T. Metcalfe consulting physicians. The disease was ushered in with a copious hemorrhage on March 10, 1878. The bleeding recurred several times, and was followed by fever, remittent in character and tertian in type. In May it was discovered that the right lung was extensively infiltrated. Profuse expectoration now set in and continued until August 1st, at which time she began to show some signs of improvement. This improvement continued until the cold weather of fall necessitated her remaining within doors. Growing somewhat worse, she was sent to Aiken.

December 11, 1878.—The patient, who has improved during the journey, is pale, with bright red spots on either cheek. Pulse, 98; temperature, 98¼°. Weighs ninety pounds. Catamenia, which had just commenced, have not reappeared since the outbreak of the disease. Expansion of the thorax, which is limited almost exclusively to the left side, two inches. There is dulness over the whole of the right lung; respiration decidedly bronchial, with loud expiratory murmur. Moist râles audible over the whole of the right lung. On the left side the respiratory murmur is exaggerated.

January 9th.—Much improved in appearance; has gained two pounds. Expectoration reduced to half an ounce. A portion of the parasternal region is partially resonant.

February 10th.—Weighs ninety-eight pounds, a gain of eight pounds since her arrival in Aiken. Coughs in the morning and evening only.

March 13th.—Weighs ninety-nine and a half pounds, a total gain of nine and a half pounds. The area of resonance is increasing in extent; a triangular space, with two inches of the sternal and of the clavicle as a base, and the junction of the third rib and sternum as an apex, being quite clear.

April 14th.—Weighs 100½ pounds; making a total increase in weight of ten and a half pounds. The catamenia have returned. The clear triangular space above mentioned has grown larger, the apex being now at the junction of the fifth rib and sternum. She walks several miles without experiencing the least fatigue. The great and steady improvement in this case was as remarkable as it was unexpected; the large extent of diseased surface and the age of the patient having naturally led to the expectation that the result would be anything but favorable.

Case XV.—A middle-aged mulatto, one of my own patients; first presented himself about eight years ago. He was having quite a profuse hemorrhage from the lungs. The attacks of hæmoptysis continued to recur at longer or shorter intervals. A physical examination afterwards revealed dulness and other signs of infiltration of the right lung. The patient, believing that his hemorrhages were due to malarial poisoning, made repeated applications for life insurance, but was invariably rejected. There has been no return of the bleeding since 1874; the cough has ceased, and the patient's general appearance is that of a person in good health. The only physical signs remaining at this date (June 1st) are slight dulness under the right clavicle and first rib, with some feebleness of the respiratory murmur. The patient's trade is that of a tailor, a fact worthy of note, in a case in which recovery has taken place; that occupation being justly regarded as decidedly conducive to the development of pulmonary phthisis.

So extensive is its prevalence in Vienna among that class of workmen, that it is sometimes designated as "the disease of the tailors."

Case XVI. A young man of twenty-three, from New York. Consulting physician, Dr. A. L. Loomis. Mother and brother died of consumption. Disease began in October, 1877, with "cold," followed by fever and emaciation; cough beginning a month later. Has had night-sweats and one slight hemorrhage. Loss of weight, twenty pounds. Color bad. Breathing rapid, with deficient expansion. Pulse, 106; temperature, 102°. Dull on the right side from clavicle to fourth rib, and over the greater portion of the scapular region. Respiration bronchial, with moist râles everywhere audible. On the left side, dulness with moist râles. This patient remained a few weeks at Aiken, and then went to Florida, where he afterwards died. During his residence at Aiken there was no material change in the patient's condition.

Case XVII.—A young lady from Chicago; a patient of Dr. R. P. Lincoln, of New York. The disease in this case began with bronchial catarrh in the autumn of 1875. She came to Aiken for the first time in the winter of 1876-77, with an infiltration of the left lung, extending from the clavicle to the third rib. She improved during the winter, and passed the summer at Faribault, in Minnesota. She returned to Aiken the following winter, and did well, coughing only a little in the morning and evening. The pulse and temperature were normal, and her weight increased from 110 to 113 pounds. In March there was a slight exacerbation of the disease, as indicated by increase in the area of dulness, bronchial respiration, and pleuritic pains on the affected side. This attack was of short duration, and she went North in the spring in good condition. She passed a portion of the summer at Bethlehem, N. H., and then went to Amherst, Mass., where she was laid up with an attack of pelvic cellulitis. This complication, together with the want of proper food, reduced her considerably, and caused her to lose much of the ground she had previously gained. As soon as able to travel she was brought to Aiken.

Dec. 14, 1878. Notwithstanding the deprivation of her accustomed exercise, her physician having ordered her to maintain the recumbent posture, patient has passed much of her time sitting or lying on the veranda, and there has been a rapid improvement in all her symptoms since her return to Aiken. Pulse, 88; temperature, 99°. Expansion, 2". Expectorates one ounce. The extension of the area of dulness noticed last March is now quite distinct, but that corresponding with the older infiltration has become more resonant. The respiration is bronchial, with prolonged hissing expiration. A few moist râles indistinctly audible under the left scapula.

Jan. 22, 1879.—General appearance good. Lung symptoms much improved.

May 1, 1879.—Much improved. Pulse, 80; temperature, 97½°. Weighs at least 120 pounds, which is above her normal weight. Coughs a little in the morning, raising a few teaspoonfuls of muco-purulent matter. Left side dull from the clavicle to the third rib, but much more resonant than at last examination. Has contracted a slight attack of acute bronchial catarrh, which gives rise to a loud persistent ronchus, which masks the other symptoms elicited by auscultation. In this case, which has been three years under observation, the disease was arrested at least twice, and there was every reason to hope that the good results would have been of a more permanent character, had it not been for the unfortunate complication which for a whole winter deprived her of all exercise in the open air.

Case XVIII.—A man of thirty-one, a patient of Dr. Santoir, of Brooklyn. Disease began with an attack of pneumonia in July, 1878. Patient's general appearance indicates that he is in the last stages of phthisis; emaciation very great; has lost over thirty pounds; cannot digest food, and vomits continually. Patient grew rapidly weaker, and was removed to Beaufort, S. C., and then to his home in Brooklyn, where he died.

Case XIX.—Male, twenty-two years; patient of Dr. Chapman, of New Haven. Was taken sick on the 4th of March, with bronchial catarrh. He was at first treated by an irregular practitioner, and lost flesh rapidly. After placing himself under Dr. Chapman's care, there was a marked improvement in all his symptoms.

Dec. 28th.—Color unhealthy; pulse, 120; temperature, 100⅘°. Weight, 117½ pounds. Expectorates quite a large amount of muco-purulent matter, some of which sinks. Patient has had night-sweats, as well as occasional attacks of hæmoptysis. On the left side there is an area of dulness occupying the whole upper half of the lung, front and back, with bronchial breathing and loud prolonged expiration; crackling mucous râles audible over the whole lung. On the right side no dulness, but prolonged expiratory murmur.

Jan. 1, 1879. Looks and feels better. Pulse, 108; temperature, 100⅘°. Expectorates less.

Jan. 28th.—The dulness now extends from clavicle to fourth rib and half down the scapula. Weighs 118¼ pounds. A gain of three-quarter pound.

Feb. 8th.—Weighs 119½ pounds; a gain of two pounds.

March 23d.—Pulse, 92; temperature, 100°. Weighs more than he has ever done in health.

March 28th.—Cough tighter; is quite hoarse, and has diarrhœa. Pulse, 112; temperature, 101°.

April 10th.—Pulse, 100; temperature, 100°. Has rallied from the late attack, and looks quite ruddy.

April 18th.—Pulse, 92; temperature, 99⅘°. Weight, 117 pounds; a loss of two and a half pounds.

May 10th.—Pulse, 88; temperature, 99⅘°. Has had a slight, but persistent, diarrhœa since May 5th.

May 17th.—Pulse, 104; temperature, 100¼°. Complains of pain in the left lung, extending through to the back, probably indicative of extension of the disease. Patient has lost four pounds.

May 21st.—Appears to be losing ground; starts for home.

In this case there was marked improvement in all the symptoms, increase in weight, lowering of temperature, lessening of cough and expectoration, until the warm weather of spring caused the attack of diarrhœa, with subsequent extension of the disease and loss of all he had previously gained.

Case XX.—A middle-aged lady from Norwich, Conn. Had a severe attack of the epidemic influenza, which prevailed so extensively in 1874; has coughed ever since, and in October, 1877, had a copious hemorrhage, followed by loss of flesh, night sweats, etc.

Jan. 4th. Pulse, 120; temperature, 101; expansion, 28½" to 30". Suffers in the forenoon with chilly sensations, succeeded by fever. Sweats profusely, and expectorates at least four ounces of muco-purulent matter, all of which is said to float. There is extensive dulness on the right side, extending in front from the clavicle to the fifth rib, and behind from the supra-spinous fossa to a line corresponding

with the lower third of the scapula. The respiration on that side is bronchial, with abundant mucous râles. On the left side no dulness, but very harsh respiration. The general appearance of the patient is decidedly unfavorable; she is quite weak, and slight exertion produces fatigue.

Jan. 14th.—Pulse, 112; temperature, 98½°. The sweats have ceased, and patient feels stronger.

March 29th.—The condition of the patient during the last two months has remained unchanged; to-day, however, she is much paler, and evidently weaker.

April 14th.—Pulse, 120; temperature, 102½°. Patient is losing ground.

April 30th.—She leaves for home, her residence at Aiken having prolonged life through the winter, the advanced stage of the disease not admitting of any more favorable result.

Case XXI.—This patient, a young man from Brooklyn, who had been hitherto attended by an irregular practitioner, was far advanced in consumption; left lung, as well as the larynx, being extensively diseased. Emaciated to the last degree with œdematous swelling of the ankles, it was evident that death would take place at an early date—a prognosis that was verified a few weeks later.

Case XXII.—An unmarried lady, a patient of Dr. F. I. Knight, of Boston. The disease began with chronic pleuro-pneumonia in December, 1876. On her way South she was exposed to the influence of severe cold in the depot at Philadelphia, which gave rise to severe pain in the chest and a dry, troublesome cough.

March 2d.—Pulse, 112; temperature, 101¾°; color, pale. Articulates with great difficulty, being compelled most of the time to speak in a low whisper. Slight dulness under the right scapula, with bronchial respiration.

March 10.—The aphonia has increased; has fever in the afternoon.

March 20.—Pleuritic pains; has less fever, but complains of weariness after slight exertion, and has night-sweats.

April 5th.—General health much improved; laryngeal symptoms as at last examination.

April 28th.—The improvement noted on the 5th has continued; she is stronger, and has increased in weight. No improvement in the laryngeal symptoms, except that the voice is more distinct.

Case XXIII.—Male, forty-one years old; patient of Dr. Van Bibber, of Baltimore. Hereditary predisposition to consumption on the father's side. Disease began with bronchial catarrh in the autumn of 1877. Has had several attacks of blood-spitting, and suffers with occasional night-sweats. The patient has been some time in Aiken, and is in much better condition than when he arrived, having gained at least five pounds.

March 4th.—Color, good; pulse, 76; temperature, 100°. Dull on left side, between the clavicle and second rib, with bronchial breathing. There are also the same evidences of disease between the scapula and vertebral column of that side.

April 4th.—The patient has continued to improve, having gained three additional pounds during the past month, making a total increase of eight pounds since his arrival in Aiken. There has been no return of the bleeding.

Case XXIV.—Male, æt. 42; Albany. Has been under the care of a homœopathic practitioner. The lung affection commenced in July, 1870, with an attack of bronchial catarrh followed by hemorrhage and occasional night-sweats. Passed the winter of 1871 and 1872 at Nassau, and improved there. Stayed at home the following winter, losing ground with the approach of the warm weather of spring, but remaining tolerably well until 1874, from which time until 1876 he passed the winters at home, but came South in the spring. Went to Colorado in 1877, and grew better. Came East in October, and remained in New York until February.

March 5th.—Color, tolerably good; pulse, 96; temperature, 99⅘° Expectorates four ounces of mucopurulent matter in twenty-four hours. Dull on the right side, from the clavicle to the lower border of the fourth rib, with loud amphoric respiration, and other signs of a large superficial cavity. Under right scapula bronchial respiration, with loud, prolonged expiration. On the left side there is no dulness, but the respiration is decidedly bronchial.

March 28th.—Much better; pulse, 84; temperature, 99°. Has gained two pounds.

April 5th.—Goes North much improved in appearance.

Case XXV.—A young man of 22, a patient of Dr. Calvin Ellis, of Boston. One brother had consumption, but recovered. The disease began with bronchial catarrh in June, 1878. Has had occasional night-sweats and hemorrhages. He came to Aiken in December, but, disappointed because his cough did not disappear as rapidly as he had hoped, he went to Florida. During a hunting expedition in that State he was much exposed, and subjected to great fatigue, which, in connection with insufficient food, and that of bad quality, brought on fever. Growing rapidly worse, he determined, after a short stay on the St. John's, to return to Aiken. It was evident from the fever, the obstinately recurring hemorrhages, and increasing emaciation, that the disease had taken a fresh start. Prior to this date the affection was said to be confined to a limited area in the left lung. He has lost twenty-five pounds.

March 20th.—Over the left apex the percussion sound is short, with very harsh respiration; the expiration being prolonged. On the right side there is a small area of dulness below the clavicle, with prolonged expiratory murmur.

April 23d.—The patient's general symptoms have undergone no material change. The dulness on the right side is now very distinct, extending as low as the third rib.

May 6th.—Patient goes home much worse in every respect. Much of the trouble in this case may be attributed, not so much to his ill-advised removal to Florida, as to his reckless and injudicious mode of life after his arrival there.

Case XXVI.—A married lady; Drs. Loomis and Nicol, consulting physicians. No history noted.

April 4th.—On the right side there is an area of dulness under the second and third ribs, near the sternum, with bronchial respiration. On the back, same side, there is also dulness under the upper third of the scapula, with increased vocal fremitus. In other respects the respiration presents the same character as in front. Patient complains of circumscribed pleuritic pain over a region corresponding with the area of dulness.

May 3d.—The patient looks quite well; has gained three pounds in weight, and coughs but little. The dulness has disappeared, and the respiratory murmur has lost its bronchial character, being feeble without any prolongation of the expiration.

Case XXVII.—A married lady from Memphis; Drs. Thornton and Maury. The disease commenced with

an attack of hemoptysis in May, 1877. Has lost eighteen pounds. During the journey the patient was so extremely weak that she had to be carried from one car to another, and even now she is unable to walk across the room without assistance. She was sent to Aiken as a *dernier-ressort*, her friends having regarded her condition as hopeless, and it was feared that she would die on the way. Has had frequent hemorrhages, and the night-sweats have been quite profuse. She had been some weeks in Aiken, and had already gained several pounds.

April 13th. Very pale, emaciated, with quick and feeble pulse. There is distinct dulness over the upper portion of the left lung.

(The symptoms afforded by auscultation were not noted, but the general appearance of the patient, the dulness on percussion, and the history of the case, are such as to admit of no doubt as to the nature of the disease.)

May 25th. Patient has had several slight hemorrhages, and has suffered with occasional attacks of pleuritic pain. In other respects her condition is greatly improved.

June 3d. Has gained six pounds in weight, looks better, and is much stronger, being now able to walk about without assistance. The improvement in this case was as great as it was unexpected.

Case XXVIII.—A young girl of fifteen, from Cincinnati; Drs. Carson and Richards. Disease commenced with cough on March 7th. Pulse, 96; temperature, 101°.

April 17th.—Left side dull in front, from the clavicle to second or third rib; respiration feeble and indistinct in character. On the right side the respiration is louder, with audible expiratory murmur.

April 24th.—Improving; coughs very little, and then only in the morning.

June 8th. Pulse, 88; temperature, 98¾°. Cough has disappeared entirely, and the patient presents all the appearances of a person in perfect health. Notwithstanding her having several sharp attacks of diarrhœa, her weight has increased from 135 to 145½ pounds.

Case XXIX.—Male, forty years, from Worcester, Mass.; patient of Dr. Calvin Ellis, of Boston, and Dr. Thomas Gage, of Worcester. Began with bronchial catarrh in January, 1879. Has gained three pounds since his arrival in Aiken, thirteen days ago.

April 22d. Color good; if anything, rather too florid. Expectorates one ounce of muco-purulent matter; pulse, 108; temperature, 101⅘°. Dull on the right side, from the clavicle to the second rib in front, and as low as the angle of the scapula behind.

April 30th.—Continues to improve; coughs less, and the expectoration is somewhat reduced in quantity.

May 18th.—Patient does not look so well, and there are indications that the disease is extending.

May 22d.—Color bad; is evidently losing ground very rapidly. Area of dulness extends in front to the lower border of the third rib. Patient much worse than when he arrived.

Case XXX. A young German from New York, twenty-five years of age. The disease began with bronchial catarrh in 1875, followed by several slight hemorrhages. Spent the summer on Schooley's Mountain, N. J., where he lost his cough and returned to New York, to all appearances quite well. There, by the advise of his physician, an eminent specialist in pulmonary affections, he resumed his business, but was soon again compelled to relinquish it on account of a return of the old symptoms. He was then sent to the Adirondack region, where he again improved; but finding himself ill on his return to New York, he started for Europe, where he was treated successively at Falkenstein (Dr. Detweiler), at Davos, and at Meran (Dr. Pircher). The patient has passed the whole winter at Aiken, but has done so well that he has not required medical advice. His only object in consulting me is to ascertain to what extent he has improved.

May 13th.—Pulse, 88; temperature, 99¾°. Looks well, and has a good healthy color. Has increased in weight. At all the other resorts he has frequented, the sputa have been more or less tinged with blood; but since his arrival in Aiken there has been no trace of bleeding. He expands the chest to the extent of three inches without any great effort. Dulness quite pronounced under and below the right clavicle; in the axillary line the percussion sound is short. On the back of the same side there is also dulness under the supra-spinous fossa of the scapula. Auscultation reveals bronchial respiration over the left apex, with prolonged expiration in the axillary region. Mucous râles, formerly observed by Dr. Pircher under the upper portion of the scapula, have all disappeared.

Case XXXI.—A young married lady, patient of Dr. L. Weber, of New York. Disease began in March, 1878. The following letter from her physician will serve as a history of this interesting case:

"Mrs. ——, from healthy family, had several slight attacks of bronchial hæmoptæ about ten months ago, during pregnancy. These attacks recurred from time to time, although rarely combined with fever. When I examined her some six months ago, I said to her attending physician that I found on the left side posteriorly unmistakable signs of catarrhal pneumonia of the chronic variety, with tendency to cirrhotic disease of the lung-tissue. . . . .

Yours respectfully,

L. Weber."

136 West Thirty-fourth St.

Jan. 15, 1879.—Patient has lost flesh, her present weight being 121 pounds. In addition to the symptoms mentioned by Dr. W., she complains of occasional attacks of dyspnœa. There is a slight dulness under and to the left angle of the scapula (auscultatory symptoms not noted). Patient has felt much better since she came to Aiken, and the hemorrhages which were previously quite frequent, have only recurred three times since her arrival.

Jan. 19th.—Pulse and temperature normal; no return of the bleeding. The attacks of dyspnœa are much less frequent.

Feb. 10th.—Pulse, 80; temperature, 98⅘°. The cough, which has been gradually lessening, has now ceased entirely.

April 24th.—Pulse and temperature normal. No return of the cough or of the hemorrhages. Has gained fifteen pounds, and is, to all appearances, perfectly well. Physical examination reveals nothing abnormal, except harsh respiration on the left side.

It will be seen by the table (p. 466), that nineteen out of the thirty-one cases were more or less improved; that in four of these there was entire cessation of cough, the patients being to all appearances quite well when they left Aiken. In five cases the patient neither gained nor lost, or gain in one direction was counterbalanced by loss in another. Of the eight classed as having grown worse, several had gained in weight and showed other signs of improvement; but, owing to carelessness or ignorance, relapsed. The one case that died was evidently in the very last stage of the disease when he

presented himself for treatment. The results are submitted without further comment to the profession at large; and although chiefly intended for their information, it is hoped that other physicians in charge of the various sanataria throughout the country may be induced to preserve careful records during the coming season, and conscientiously present for publication the results attained at their stations. It is hoped that those who may be inclined to act on this suggestion, will, if possible, adhere to the plan presented in this paper, and thus enhance the value of their reports when compared with others. It should be remembered that the above report does not include all the cases of consumption that occurred in the writer's practice, but only those which were under observation for periods longer than one month. Quite a large number presented themselves only occasionally, and, not being under continuous treatment, were omitted. A fact worthy of note, and one to which the reader's attention is most earnestly directed, is, that patients wintering at Aiken, as a rule, did better than those which did not arrive until after the warm weather of spring had begun. Another point in the report which should be noted is, that those cases which failed to improve at Aiken were in no way benefited by removal to other resorts.

TABULAR STATEMENT OF CASES OF PHTHISIS TREATED AT AIKEN, SOUTH CAROLINA, DURING THE WINTER OF 1878-79.

Case No.	Lung affected.	Term of residence in Aiken.	Result.	Increase in weight.
I.....	Left.	4 months.	Improved.	Not noted.
II.....	Both.	5 seasons.	Improved.	"
III	Both, with cardiac complication.	3 months.	Grew worse.	0
IV.....	Right.	4 months.	Grew worse.	0
V	Right.	4 months.	Improved.	9 lbs.
VI.....	Right.	7 months.	Improved.	Not noted.
VII.....	Left.	1 month.	Grew worse.	0
VIII.....	Both.	2 months.	Improved.	Not noted
IX.....	Both.	3 months.	Unchanged.	"
X	Both.	4 months.	Improved.	9½ lbs.
XI.....	Right.	3 months.	Arrest.	3 lbs.
XII.....	Right, with laryngeal complication.	5 years.	Arrest with subsequent relapse	Not noted.
XIII... ..	Right.	6 weeks.	Unchanged.	"
XIV.....	Right.	6 months.	Improved.	10½ lbs.
XV.... ..	Right.	8 years	Arrest.	Not noted.
XVI.. ...	Both.	1 month.	Unchanged.	"
XVII....	Left.	3 seasons.	Improved.	"
XVIII....	Both.	1 month.	Grew worse.	0
XIX.. ...	Left.	5 months.	Unchanged.	Not noted.
XX.....	Right.	4 months.	Grew worse.	"
XXI... .	Left, with laryngeal complication.	3 months.	Died.	0
XXII. ..	Right.	2 months.	Unchanged.	Not noted.
XXIII....	Right.	3 months.	Improved.	8 lbs.
XXIV....	Left.	2 months.	Improved.	2 lbs.
XXV ...	Both.	6 weeks.	Grew worse.	0
XXVI ...	Right.	1 month.	Improved.	3 lbs.
XXVII...	Left.	2 months.	Improved.	6 lbs.
XXVIII	Left.	2 months.	Arrest.	10½ lbs.
XXIX....	Right.	1 month.	Grew worse.	0
XXX.....	Right.	4 months.	Improved.	Not noted.
XXXI ..	Left.	3 months.	Arrest.	15 lbs.

SUMMARY.

Arrested	4
Improved	13
Unchanged	5
Grew worse	8
Died	1
	31

A PLEASANT REMEDY FOR TOOTHACHE.—This is found, according to Dr. T. C. Osborn, in the *Medical and Surgical Brief*, in the compound tincture of benzoin. A pledget of lint saturated with the drug and applied to the decayed tooth relieves the pain at once.

Reports of Hospitals.

THE TREATMENT OF TYPHOID FEVER IN THE PHILADELPHIA HOSPITALS.

(Prepared for THE MEDICAL RECORD.)

THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

THE remedies which have been found at the University Hospital to exert the most powerful influence upon the follicular intestinal catarrh, always present in this disease, are first and foremost the nitrate of silver, and next the subnitrate of bismuth and carbolic acid. There would seem to be abundant evidence that nitrate of silver reduces the size of the enlarged follicles, relieves the inflammatory engorgement, and allays the hyperæsthesia of the nerves. It has also been settled by numerous experiments that the nitrate of silver is the most easily administered of the three astringents above mentioned, and the best tolerated by the system. If there is any putrid element in the disease, carbolic acid is employed instead of the nitrate of silver. The nitrate of silver is administered in doses of one-fourth of a grain four times a day. This treatment is persevered in until the ulcers have entirely healed.

If the discharge from the bowels is composed of small, semi-solid stools, it is, with propriety, disregarded; but if the stools are watery and large, opium is administered in pill-form, combined with the nitrate of silver. From one-quarter to one grain of the powdered opium is given three times a day. If there is constipation instead of diarrhœa, belladonna is given conjointly with the nitrate of silver.

Great care is had with regard to the diet when the catarrhal inflammation of the intestines is present. The food employed is, of course, as digestible as possible. Milk has been found to be the best diet in this disease. If the curd appears in the stools, the milk is diluted with water, or lime-water. Of this mixture of milk and lime-water three ounces are given every two hours, or a little over two pints in the course of the twenty-four hours. When the bowels are torpid, beef or mutton broth is given alternately with the milk.

The beef-tea employed is prepared after the following recipe: Take a quantity of tender meat, and, after cutting off the fat, chop it up fine, put it in a bowl, pour a pint of water over it, and let it stand over night. The water should be kept just on a simmer—the temperature never being allowed to go above 140°, otherwise all the albumen is coagulated, and so either left on the sieve in straining, or introduced into the stomach in the form of curds. After this simmering solution has been allowed to stand over night, pour it into a pipkin, and heat it again gently with enough salt to give it flavor, and, if necessary, add a drop or two of muriatic acid. Then pour it out over a hair-sieve into a jar. The resulting solution will be found to contain all the nutriment possible, and to be the most valuable kind of stimulant and laxative.

When the fever is high, the patient is given all the food he can take. Care is had, however, that, in allowing food, the already inflamed intestinal tract is not further irritated.

The poison in the blood is controlled by means of quinia, and nitro-muriatic or salicylic acid. As a general thing, salicylic acid is only employed where there is some putrid discharge joined with high

fever. Quinia is considered (1) to neutralize the effects of the septic poison in the blood, (2) to act as a good tonic to the muscular and nervous systems, (3) to tend to check febrile action, and (4) to remove any malarial element that happens to be present. Quinia is never given in the enormous doses advised by the German physicians. It has been found that such doses will break down high fever, but they produce entirely unnecessary irritation of the gastric mucous membrane. About twelve grains of quinia are given in the course of the twenty-four hours.

The temperature is kept down by preventive measures rather than by the cold bath, which is regarded as a last resort. It is unnecessary after this to say that the practice of the University Hospital is wholly opposed to the indiscriminate cold bathing in typhoid fever, so much in vogue in Germany within a year past.

When the temperature runs up in spite of drugs, in the milder cases, spongings of the whole body are practised every two hours, the sponges being squeezed out of a mixture of water and bay rum at a temperature of from 60° to 80°. If this does not succeed (it rarely fails), and if the patient's temperature mounts up to 104° or 105°, he is then wrapped up in sheets wrung out of cold water. If the temperature still runs up to such an extent that life is threatened, the patient is placed in a cool bath until the bodily temperature is sufficiently reduced.

Before the local lesions appear, the fever can be more boldly attacked; but when, in subsequent stages, it runs high, it is regarded as partaking of the nature of a sympathetic fever, largely dependent upon the amount of intestinal lesion, and the use of baths at this period is thought to be attended with great risk. If the cold bath is used at all (except as a last resort, and when temperature cannot be reduced in any other way), it is employed during the first ten days in cases where the temperature rises above 103° and cannot be controlled by frequent spongings, large doses of quinia, diaphoretics, etc.

With regard to the use of stimulants, the hospital practice is not in favor of administering them simply because a patient has the fever. It is believed that stimulants are only demanded for the relief of certain symptoms. As a general thing, they are not given to children before the age of puberty. They are only administered to old persons, and to meet certain indications, viz., (1) ataxic nervous disturbances, such as sleeplessness, twitchings of the muscles, maniacal delirium; (2) circulatory disturbances, such as feeble and rapid pulse, and feeble development of the first sound of the heart; (3) profound asthenia, as shown by great tremulousness, inability to make any movement, and tendency to slide down off the pillow; (4) dry and brown tongue, with sordes on lips, teeth, and tongue.

The milder forms of stimulus are always used at first. The one most frequently employed is wine-whey. This is made in the proportion of one part of sherry to three of milk, and as much as a gill or half a pint of it is given in the course of three hours. If the symptoms increase, stronger stimulants are used, such as whiskey. Whiskey is usually given in lime-water and milk; the lime-water prevents the coagulation of the milk by the alcohol. These ingredients are mixed in the proportion of one tablespoonful each of whiskey and lime-water to every three ounces of milk. In this form half an ounce of whiskey is given every hour. If the stimulation is doing good, a diminution of the serious symptoms is noted. If the symptoms increase, on the other hand, the amount of stimulus is reduced.

With regard to complications: relapses are always regarded as true second attacks of the disease, and are treated accordingly. The treatment is resumed, the diet restricted, and the same general watchfulness had over the state of the case as during the course of the first attack.

Hemorrhage occurring early in the attack is considered as of but little consequence, but when it supervenes later—when the sloughs are thrown off—it is regarded as a very serious matter. The treatment of hemorrhage is by absolute rest in bed for twenty-four hours, and by the administration of opium, to produce complete quiet for the alimentary canal. The opium is given by the rectum, one grain of the solid opium being prescribed every two or three hours until the patient is gently under its influence; of astringents, for local action, acetate of lead is preferred. A suppository containing one grain of opium and three grains of the acetate of lead is given three or four times daily. Ergot, by reason of its action upon the walls of the arterioles, is also very highly prized. It is given hypodermically near the supposed seat of the hemorrhage. The food allowed is very small in quantity, and absolutely liquid.

Peritonitis is treated by antiphlogistics, sedatives, perfect rest in bed, and a diet which leaves no residuum to irritate the bowels.

True perforation is regarded as beyond the reach of medical skill to mend.

THE GERMAN HOSPITAL.

The quinine treatment (heroic doses) has been given a fair trial in the wards, and has been found to do but very little, if any, good. It has not even been satisfactorily demonstrated that it reduces the temperature, as the same changes in temperature have taken place in the case of those who have been taking the mineral acids alone. Indeed, after giving quinia some time in some cases it was stopped, and the same changes were found to exist. Quinia has seemed rather to increase the diarrhœa and headache, and in two cases it produced entire deafness for two weeks. Sponging with vinegar and water has been found to act beneficially. Plenty of ice is given the patient to suck, and the ice-cap is applied to the head. The wet pack has been found to lower the temperature for the time being, but in an hour or more it generally mounts up again. To this is added the consideration that it has the disadvantage of necessitating the constant moving of the patient, wearing and weakening the constitution, thereby destroying his or her main support against the disease.

Oil of turpentine, as recommended formerly by Dr. George B. Wood, has been proven to act most beneficially. Especially has it been found useful in those cases where the dry, dark, and heavily coated tongue exists, with abdominal symptoms. It is given in twenty-drop doses in mucilage, every hour or two, and is continued in smaller doses during convalescence. In a large number of cases in which dry, dark tongue existed with tympanites, turpentine acted most beneficially, the tongue regaining its normal color and becoming moist in from six to eight days, and the tympanites disappearing in a much shorter time.

The mineral acids are of great service in keeping the stomach in good order, stimulating the appetite and relieving the intense thirst. In many cases the patients call for their dose of the acid hours before the time, so much are they pleased with its taste and effects. The acid commonly used is the dilute nitro-muriatic acid.

Whenever active, wild delirium exists, from one-third to one-half of a grain of morphia is given hypodermically. This medication has been found to act promptly in almost every instance. In one case particularly, the patient towards evening showing signs of approaching delirium, a large dose of morphia was immediately given hypodermically, which had the effect of rendering the patient perfectly rational when he awoke. Upon another occasion, when this same patient again showed signs of approaching delirium, the morphia was omitted, upon which a wild attack of delirium came on, which was at once broken up by the use of a moderate dose of morphia hypodermically.

THE EPISCOPAL HOSPITAL.

The temperature is reduced and the heart strengthened by fifteen-drop doses of the tincture of digitalis and two grains of quinia, every three hours. Stimulants are only employed in the severer cases. Excessive diarrhœa is controlled by injections containing fifteen drops of laudanum and half a fluid ounce of starch. Dilute muriatic acid is given in fifteen-drop doses every three hours, and in the second week of the disease five drops of turpentine are administered every three hours. Hemorrhage from the bowels is controlled by the internal use of ergot, and the local application of ice to the abdomen. A number of cases have been treated of late with one-fourth grain doses of the nitrate of silver in the second week of the disease, this dose being repeated every three hours with entirely negative results.

THE PENNSYLVANIA HOSPITAL.

Ten grains of quinia are given daily, and ten drops of muriatic acid every three hours. The patient is sponged all over with cold water, in the mornings and evenings. Diarrhœa is controlled by opiates and astringents. This is the routine treatment. The diet is very carefully regulated, consisting principally of beef-tea and milk. When the first sound of the heart is altered (weakened) early in the course of the disease, it is regarded as an indication that the patient should immediately be put upon the use of stimulants; or, if he is already taking whiskey, that the daily amount should be doubled.

Progress of Medical Science.

Neurotomy of the Superior Maxillary Nerve.—In a very interesting paper on this subject published in the *New York Medical Journal*, June, 1879, Dr. F. S. Dennis gives a short *résumé* of the history of neurotomy, and a collection of twenty-one cases of exsection of the superior maxillary branch of the trigeminus as far as the foramen rotundum, Meckel's ganglion being extirpated, in a certain number of cases, at the same time. Although too limited to furnish broad and comprehensive deductions, Dr. Dennis believes that these cases will justify the following practical conclusions:

1. The high operation upon the superior maxillary nerve for the cure of neuralgia characterized by pain, having its maximum intensity at the infra-orbital foramen, in the course of the malar branch, and sometimes, although rarely, in the alveolar dental, superior labial, and palatine points, is a better operation than the lower one, inasmuch as these cases show that the former, as a secondary measure, has cured, or brought relief, in nearly every case in which the latter has failed to do so.

2. The operation is justifiable, as the record shows no case in which death has occurred as an effect of the operation, nor one in which the symptoms have been aggravated.

3. Relief, if only temporary, is a result which justifies the high operation for neuralgia as much as it does the one for the removal of malignant tumors.

4. Want of success is due to failure as regards a correct diagnosis, not only of the cause of the pain, but also of the site of the disease, whether central or peripheral.

5. If the lesion is situated in the terminal nerve plexuses, polyneurotomy, or the resection of several nerves may become necessary. Mononeurotomy should be reserved for those cases in which the irritant involves the trunk of a nerve near its origin.

6. The principal indication for the employment of this bold but safe operation is found in the obstinate persistence of pain, notwithstanding the trial of all milder measures. The prognosis will be most favorable where lesions involving the plexuses or the nerve centres can be excluded.

It is a significant fact that out of the twenty-one cases that have been collected from all the literature on this subject, more than half have been performed by American surgeons.

Evidence of Still-birth.—In an article on this subject Dr. S. W. Abbott suggests the probable value of further observations on the relative volumes of the lungs and body as determined by displacement of water. An absolute standard can scarcely be established, but there may be a relative standard which careful observations will demonstrate. The color of a lung which has not respired is brownish-red, resembling that of adult liver. After respiration, Casper describes the existence of bright red circumscribed patches on a dark bluish-red ground color, and he states that the presence of this insular marbling excludes the idea of a fœtal condition, and entitles us to assume as certain the fact of the child having lived after its birth. Pulmonary hyperæmia and artificial inflation may modify the color of the lungs of the new-born. Crepitation only appears after respiration. According to the Prussian criminal code, the position of the diaphragm is to be carefully noted; when this does not rise higher than the fifth intercostal space, the child has breathed; when no respiration has taken place it rises as high as the fourth intercostal space. Air does not enter the middle ear in less than twelve hours after birth. According to Casper the presence in the lower epiphysis of the femur of an osseous nucleus of three Rhenish lines (about six millimetres) in diameter, permits the deduction that the child has lived after its birth, but the converse of the rule does not hold good.—*The Boston Medical and Surgical Journal*, August 28, 1879.

Changes in the Medical Faculty of Yale College.—At a meeting of the Yale corporation on October 22d, Dr. William H. Carmalt, for several years a lecturer in the Medical School, was appointed a full Professor of Ophthalmology and Otology. Dr. Francis Bacon was invited to resume duty as Professor of Surgery, and the following lecturers were appointed: Dr. W. O. Ayres, of New Haven, on Diseases of the Nervous System; Dr. S. H. Chapin, of this city, on Diseases of the Throat, and Dr. Matthew D. Mann, of Hartford, Clinical Lecturer on Gynæcology.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y

New York, November 15, 1879.

LEGAL LIABILITIES OF HOSPITALS AND OF MEDICAL MEN.

A recent decision by the Supreme Court of Rhode Island will have considerable interest to the medical profession, and especially to those members of it who are connected with charity hospitals. It appears that a man in Providence, R. I., while working in a lumber-yard, had two of his fingers cut off by a circular saw. He was taken to the Rhode Island Hospital, and there put under the care of the interne. Ether was administered, and attempts were made to stop the bleeding. This could only be done, however, by the application of the tourniquet, and that instrument was kept on for seventeen hours. The result was, that eventually the arm had to be amputated at the shoulder-joint. When the patient recovered he sued the hospital for damages on account of unskilful treatment, and because the interne did not summon the visiting surgeon in accordance with the hospital rules.

In the court the judge directed the jury to give a verdict for the defendant, on the ground that an institution supported as this was, by public charity, should not be made liable for negligence or unskilful treatment. The knowledge that there was such a liability might deter the benevolent from giving money to such institutions. The case was appealed, however, and this judgment reversed.

In his decision the judge stated that hospital corporations should be considered liable for failure to exercise reasonable care in selecting skilful, competent men as internes, and that they were also liable for negligence on the part of the internes in carrying out the proper rules of the institutions, such as sending for the visiting surgeon in cases of emergency.

This decision is stated by the *Sun* to be justified by legal authorities, although contrary to the decisions of some other courts in like cases.

Looking at the matter from the medical standpoint, it appears to us that, on the whole, this recent decision will be endorsed by the profession as a just and salutary one. There can be no doubt that instances of carelessness and negligence on the part of hospital internes are not very infrequent, although as a rule these young men perform their duties with great faithfulness. The fact that the hospital corporation is responsible for their acts will tend to make it more particular in its selections, and to lessen the weight of personal and political influence, which has so great a share in the appointments.

In suits against doctors personally, however, we have always advocated the greatest lenity on the part of the court. It is usually very difficult for the non-professional mind to appreciate the complexities that may surround even a simple case, and the fact is notorious that it is an immense injury to a physician to be sued for malpractice, even if he gets a verdict in his favor. It should be well understood that courts of law will not often grant damages in such cases. This is but justice to the doctor who, if a genuine one, will never allow any injury or inattention to ensue from such a state of affairs. Let the corporations be watched, but the doctor have a little balance in his favor. He has a hard enough time apart from courts of law.

INSTRUMENTS OF PRECISION.

The ingenuity of medical men has been displaying an unwonted activity of late, and new methods and appliances for the examination of the human body are being continually announced. Instruments of precision just now are in the ascendant; and never before have anatomical structures or physiological functions been put under such close and exact scrutiny.

We learn that electrical lights are penetrating the viscera, and that the pathological changes in the blood-corpuscles are being very exactly noted and classified. The news of these things has already reached the laity. It is announced in a leading New York daily, that a celebrated microscopist has allowed a gentleman to marry because his white blood-corpuscles were—or were not—finely granular. In fact, there have been so many other interesting reports of this kind that we find it well to call attention to some of these devices with which humanity is becoming so closely environed.

We have spoken in a previous issue of the apparatus that has been invented by a French physiologist for measuring the amount of heat thrown off from the body in any given time. If we may believe the inventor, the temperature changes of our systems can now be put under the exactest supervision; a man can neither change his diet nor undergo a physical exertion without it being registered in British units. With the present delicate surface thermometers also, only local changes in nutritive activity can be determined. Active cerebration, an over-loaded stomach,

or a deep-seated inflammation, all send up the index. To a lively imagination the practical application of these various forms of thermometry promises the most extraordinary results in the cerebral department. When it is established, as it is hoped it may be, that the value of a thought is to be measured by the amount of cerebral tissue consumed and heat evolved, every man's intellectual calibre can be definitely established in degrees Fahrenheit; the problems of life will then be greatly simplified.

There has always been much ingenuity shown in investigating the normal and pathological conditions of the lungs, but never before have investigations presented such large, we may say sonorous, results. Mr. Edison, for instance, promises us a stethoscope, with which we hope nothing less than that the breeze from the epithelial ciliæ may be heard and differentiated, as also that the noise from the development of a tubercle may be brought with melancholy distinctness to the ear. These are but hopes and promises, however, which may partially fail us. We take pleasure, therefore, in recording the more modest, but better established inventions of a gentleman from New Jersey; inventions which deserve notice, indeed, if only for the melody of their nomenclature. There is, first, the Respiratory Anemometer. This instrument consists simply of a tube, a valve, a movable pen, some gearing, a few levers, a strip of paper, and clock-work. By breathing into the tube, a record is obtained of the character of the respiration, with the relative length of inspiration and expiration.

Supplementary to this valuable piece of mechanism are the Pneumasyren and the Unison Resonator. The former gives, among other things, the character of the respiration, while the latter announces to the ear the smallest deposit of tubercle. With these three instruments, a stethoscope, a pleximeter, and a sounding towel, it will be strange, indeed, if phthisis cannot be arrested even in the third stage.

Dr. Richardson, of London, has utilized the microphone in such a way as to form what he calls an audiometer. By it the capacity of the ear to appreciate sounds can be accurately measured, and he has already made some interesting discoveries in regard to hearing. The application of the carbon telephone to urethral surgery is well known. Sir Henry Thompson, by attaching a form of this instrument to a Maillechort rod, finds that the presence in the bladder of the smallest particle of gravel even is readily appreciated. It only remains to extend its application to the pelvis of the kidney. Some time ago Dr. Nestler, of Germany, announced that he had invented an endoscope, with which he could see the interior of the bladder, and even of the stomach. At the recent meeting of the International Medical Congress, M. Trouvé, of Paris, stated that with his electrical polyscopes he could accomplish this same result, and an exhibition of his instruments was made. Thus the glory, as well as the necessity, of Alexis St. Martin is taken away.

We have referred to but a small part of recent mechanical achievements, but it is enough to show that the medical profession is progressing, and is, as usual, absorbing the other sciences into its own. The present inventive tendencies, of which, perhaps, we have spoken too lightly, show the impress which modern physics is making on medical science, and we would by no means undervalue its benefits when within the scope of practical utility.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE ARMY.

The annual report of Surgeon-General Barnes shows that there were 21,000 white, and 1,942 colored troops in the army during the past year. The number of cases of sickness among the troops was about 42,000; the number of deaths about 670. The number of medical officers is 326, of whom 150 are acting assistant-surgeons. The amount of sickness and death among the colored troops appears to be much greater than among the whites. The number of cases of sickness is proportionately very large, since 42,000 cases among 23,000 soldiers would oblige each soldier to be sick twice during the year. The ratio of sickness to mortality is also very much greater than that among ordinary communities. Usually there is one death to every twenty-five or thirty cases of illness; in the army, however, there is apparently only one death to every sixty-two cases of sickness. These apparent discrepancies, however, are due to the peculiar method of compiling the statistics. Thus: a sick call is held every day, and all those applying for treatment on that day, unless sent to the hospital, are enumerated as new cases. In this way, a man may have a mild but chronic affection, calling for daily treatment, and be counted in as a new case each time he is seen by the surgeon.

This method of dealing with the figures has probably certain advantages, or it would not be adhered to; but it is liable to give a wrong impression as to amount of sickliness in the army.

NEW TYPE FOR MEDICAL RECORD.

The present issue of the Record appears with a new dress of type. We are excusable for congratulating ourselves on the fact, especially when we speak on behalf of our readers. As we considered it was not too early to begin a good deed, we resolved not to wait for the commencement of the next volume before making the change.

Death of M. Chassaignac.—M. Chassaignac, to whom surgery is indebted for the introduction of the drainage tube into practice, died on August 26th. He had, for some time, retired from active life.

Reviews and Notices of Books.

I. The Laws of Therapeutics; or, the Science and Art of Medicine. By James Kidd, M.D. Philadelphia: Lindsay & Blakiston, 1879. pp. 196

II. The Grounds of a Homœopath's Faith. Three Lectures delivered at the request of Matriculates of the Department of Medicine and Surgery (Old School) of the University of Michigan. By Samuel A. Jones, M.D., Professor of Materia Medica, etc., in the Homœopathic Medical College of the University of Michigan. Philadelphia and New York: Boericke & Tafel, pp. 92

I.—Dr. Kidd is a physician in London enjoying a large practice among the upper classes. He happens to be the medical attendant of the Earl of Beaconsfield, and during the late Berlin conference was summoned thither to attend his illustrious patient. The homœopaths of London were quite jubilant at the honor thus paid to one of their own guild.

The London *Lancet*, with its proverbial acuteness, cruelly discomfited the enemy by declaring that Dr. Kidd was not that sort of a man, but, on the contrary, one "who repudiates the description attributed to him, and who by no means avowedly pursues the method of Hahnemann in his treatment." After both sides have had their say, Dr. Kidd, in the volume before us, speaks for himself. He first discusses the historical aspects of his subject, then devotes a few chapters to physiology, pathology, the natural history of disease, and the general subject of therapeutics. The three following chapters are devoted, to "Hahnemann's law of similars," to "Galen's law—the antipathic," and to a comparison between the two. In these three chapters we find the author's bias clearly expressed in favor of the former law. The rest of the book is devoted to other subsidiary matters. The apparent object of the book is to give prominence to the homœopathic idea, and we fear our contemporary the *Lancet* was a little at fault in its assertions concerning the author's "treatment." If a preference for the doctrine of "similia" does not constitute a homœopath in the ordinary acceptation of the term, we are at a loss to know what does. In justice to Dr. Kidd, however, it should be stated that he does not confine himself to homœopathy, but, when in a tight place, freely roams through the whole domain of medical science in search of remedial agencies. We are aware that it is the habit in Paris for the same medical publishers to issue both regular and homœopathic works. It now appears that this custom has taken root in Philadelphia.

II.—Much complaint has been made that the medical faculty of the University of Michigan lecture to homœopathic students, and thereby perhaps save some of them from becoming irregulars. It would appear, however, from the title-page of the work before us, that the tables had been turned, and that a homœopathic professor was lecturing to the regular students in the hope of seducing some of them from the paths of rectitude and (medical) virtue. Certainly, affairs are decidedly mixed in Michigan. But jesting aside—the author gives us a new definition, or rather mark of distinction, between the homœopathic physician and "his older brother in the science and art of medicine." The characteristic of the former, he says, is "not the law of cure, not the Hahnemannian hypothesis of chronic diseases; none of these, but simply this—his fixed faith in the efficiency of drugs." He then goes on to explain the nature of homœopathy, and more especially Hahnemann's connection with it, indulging by the way in a good deal of pathos (we had almost written bathos). The writer wields a ready pen, and evidently believes that rhetoric may perhaps persuade, where logic fails to convince. His second lecture is devoted to a witty criticism of a rather extreme instance of polypharmacy, and advocates the use of a single drug at a time—that is to say, if the physician wishes to learn anything about the effects of the medicine he is using. This is all very well, but we fear that there are some physicians whose main desire is to cure their patients, and who are perfectly willing that somebody else should do the experimenting. It is not given to every one to be a "Dr." Carver, and we presume that for many years the shot-gun will be preferred to the rifle. There is, however, a good deal to be said on both sides of this question. In the third lecture the author advocates the use of the small dose. His argument on the whole matter may be briefly summed up in a few words: if the law of similars be true, the single remedy and the minimum dose are the logical and practical sequences. A good deal, however, depends on the *if*, and we can hardly accept the conclusions until the hypothetical is replaced by the positive. On the whole, the subject is presented in a less objectionable manner than is common with writers of his school. The book is interesting—in parts amusing.

Asthma; its Pathology and Treatment. By J. B. Berkart, M.D., Member of Royal College of Physicians of London, etc., etc. London: J. & A. Churchill, 1878.

This agreeably written treatise upon an intractable disease is well worthy of possession. The cases with which the work abounds are effectively related, and well represent the views of the author. The objective symptoms justly demand a larger share of the reader's attention, and by an inevitable logic almost wholly separate the complaint from the usually accepted class of purely nervous affections. Every phase of organic lesion is duly considered, and we arise from the perusal of this monograph with a feeling that there have been satisfactory additions to our knowledge.

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Annual Meeting, October 27, 1879.

Dr. A. E. M. Purdy, Vice-President, in the Chair.

The Society was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Secretary, Dr. F. A. Castle. The Secretary then read the report of the Comitia Minora for the entire year, ending with the final meeting of the committee, held October 22, 1879.

The Treasurer then read his report, which showed a balance in the treasury of $1,257.70.

The election of officers being next in order, the Vice-President appointed Drs. H. T. Hanks and H. B. Conrad tellers. The result of the election has been published.

REPORT OF THE COMMITTEE ON HYGIENE.

Dr. J. C. Peters, Chairman of the Committee on Hygiene, read extensively from a voluminous report

made up largely of material furnished by Dr. Roger S. Tracy and Dr. E. G. Janeway. The streets, the sewers, the drains, the privies, and the water-closets of the city, the noises made by the elevated railroad, street cars, carts, and other vehicles, the docks, the fumes arising from manufactories, and the Fourth avenue tunnel nuisance, were subjected to criticism.

The portion of the report relating to the health of the city showed a mortality from all causes during the nine months of 1879, ending with September, of 21,867 against, in round numbers, 26,000 in 1878, 24,000 in 1877, and an average for the first nine months of a series of years from 1878 back to 1871, inclusive, of 22,516.

There had been an unusual number of deaths from small-pox, although the disease had not prevailed epidemically. During the last nine months 39,574 vaccinations had been performed by the corps of the Board of Health under the direction of Dr. Taylor. Bovine virus had been employed exclusively.

The mortality from typhoid fever had been much less than in previous years. During the nine months of 1879 only 122 deaths had occurred from this disease against 156 in 1878, 179 in 1877, 207 in 1876, 251 in 1875, and an average for the first nine months of a series of years from 1878 to 1871, inclusive, of 201. The same notable diminution in the mortality from the severer forms of typhus was reported.

It was argued by Dr. Janeway that, from these figures, the stringent sanitary control exercised by the Board of Health over the tenement-houses and the tenement-house population of the city was beginning to be felt in decreased rates of mortality from preventable causes.

The mortality from measles had been comparatively small.

The mortality from whooping-cough had been comparatively large, showing a total of 466 for 1879.

The mortality from scarlet fever had been the largest it had been since 1860, the aggregate number of deaths having reached 1,370, against 741 in 1878, 781 in 1877, and 1,278 in 1860. The disease had not at any time during the past nine months prevailed epidemically.

The mortality from diphtheria had been less than for any corresponding nine months since 1872, showing a total of 453.

The mortality from croup had been less than two-thirds the usual average.

Diarrhœal diseases had been steadily decreasing in number since 1876, when a mortality of 3,060 occurred, against 2,084 for 1879. The diminution was ascribed chiefly to the work of the special visiting corps of physicians appointed by the Board of Health for the summer months.

On motion, the report was accepted, ordered upon the minutes, and the Secretary directed to forward a copy to the Chairman of the Committee on Hygiene of the Medical Society of the State.

REPORT OF THE COMMITTEE ON ETHICS.

Dr. F. V. White, Secretary of the Committee on Ethics, read a brief report in which the Society was congratulated that its ethical health was much better than last year. In 1878 there were 175 cases, and in 1879, 22 cases for adjudication. Ethical questions had not absorbed the time of the Society and prevented it from contributing to the diffusion of true science, particularly to a knowledge of the healing art.

The report was accepted, and ordered to be placed upon the minutes.

REPORT OF COMMITTEE ON PRIZE ESSAYS.

Dr. Fordyce Barker, Chairman of the Committee on Prize Essays, made the following report, awarding the prize to an essay written on "Affections of the Ear arising from Diseases of the Teeth," and bearing the motto: "Ore Audi":

"This essay is worthy of award from its careful study and appreciation of the physiological relations of the organs discussed, its original suggestions relative to their pathological associations, the clinical facts which seem to have been intelligently and honestly reported, its simplicity, lucidity, and correctness in style, its value as a contribution to practical medicine on an important class of affections which, as bearing any relations as cause and effect, has hitherto received but slight attention from medical writers."

On opening the envelope bearing the motto, Dr. Barker found the name of Dr. Samuel Sexton, of New York, to whom the prize was awarded.

Worthy mention was made of an essay "On a Simple Polarizing Apparatus and its Application to Practical Medicine."

The report was received, and ordered to be placed on the minutes.

REPORT OF THE CENSORS.

Dr. H. G. Piffard, Secretary of the Board of Censors, read the report, in which was shown the Society's lack of legal power to take action with reference to certain cases of violation of the code. The functions of the board were of a three-fold character: 1. Those which pertain to them as members of the Board of Censors as established by law; 2. Those that are immediately incumbent on them by one of the sections of the system of medical ethics; and, 3. Those which devolve on them as members of the Comitia Minora, according to the by-laws of this Society. Under these heads the report was continued at some length, and then accepted and ordered upon the minutes.

REPORT ON AID FOR YELLOW-FEVER SUFFERERS.

Dr. John C. Peters, chairman of the committee appointed to solicit aid for the families of physicians who died of yellow fever during the prevalence of that disease in the South in the year 1878, reported that the committee had received $4,998.10, and distributed $3,700, leaving in hand $1,298.10. The number of physicians who died during the epidemic of 1878 was 101.

ANNUAL APPROPRIATION.

On motion, the sum of $1,500 was placed at the disposal of the Comitia Minora, subject to the approval of the Society, with which to carry on the work of the Society for the ensuing year.

MISCELLANEOUS BUSINESS.

Under the head of Miscellaneous Business, a communication was read that had been sent by Dr. Wm. A. Hammond, calling attention to a statement in the published minutes of the Stated Meeting for September, in which the claim was made that Dr. John S. Billings founded the National Medical Library. Not in any way desiring to detract from all credit due to Dr. Billings, he wished to correct the statement made in the published minutes by saying that, while Surgeon-General, he founded this library several years before Dr. Billings was stationed at the city of Washington.

The communication was accepted, and ordered to be placed on the minutes.

REVISION OF THE PHARMACOPŒIA.

A resolution offered by Dr. Piffard was adopted, requesting the medical colleges of New York City to appoint their full quota of delegates to attend the next convention, to be held for the revision of the U. S. Pharmacopœia, and protect the interests of physicians.

APPROPRIATION FOR THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE.

Dr. Piffard offered a resolution to the effect that no appropriation should be made for the publication of the scientific Transactions of the Medical Society of the State of New York, but that they be authorized to contribute toward the publication of its business proceedings, to the end that the same shall be given a wider circulation.

On motion, the resolution was referred to the Comitia Minora.

On resolution presented by Dr. Piffard, the Comitia Minora was instructed to appropriate a sum not exceeding $250 for the services of the Secretary for the ensuing year.

The Society then adjourned, to meet on the fourth Monday in November, 1879, at 8 P.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 8, 1879.

Dr. Joseph W. Howe, Vice-President, in the Chair.

SUPPURATIVE PHLEBITIS—THORACENTESIS.

Dr. J. Lewis Smith presented a specimen of suppurative pleuritis removed from an infant who died in one of the public institutions. The history of the case was as follows:

Frank, aged about eighteen months, and having ten teeth, entered the New York Infant Asylum, Aug. 9, 1879. His previous history was not ascertained, except that he had been feverish and fretful during the preceding three or four days. The following record of his state was made on the evening of the 9th: "A light, moist fur upon the tongue; has had one thin and greenish stool during the day; no vomiting; urine high-colored; has an occasional cough, apparently without much pain; frets when pressure is made on lateral portions of chest and abdomen; axillary temp., 104⅘°; fauces slightly red. There is marked dulness on percussion over entire right side of chest, but not so great in the mammary and infra-clavicular regions as posteriorly. Fine, moist râles are heard when the ear is applied over the lower angle of the right scapula, and coarser moist râles in the anterior portion of right lung. Brandy, quinine, and the usual poultice—one part of mustard to sixteen of flaxseed—were ordered, as also one teaspoonful every second hour of beef, wine, and iron.

August 10th. Respiration as before; dulness, amounting to flatness on percussion, over entire right lung, except a little resonance in infra-clavicular and mammary regions; no fremitus is observed below the angle of the scapula when the baby moans or cries; axillary temperature, 102⅘°. Diagnosis: pleurisy, with effusion.

August 11th.—Pulse frequent, but not weak; frets much, and has at times the expiratory moan; but the cough is loose, and apparently with little pain; axillary temperature, 102°; otherwise, symptoms and physical signs as before, and the same treatment is continued. Evening; continues to have an occasional expiratory moan; is thirsty and fretful; apex beat of heart in *linea mammalis;* pulse, 130; resp., 60; a distant vesicular murmur is noticed below the scapula on right side; bronchial respiratory murmur above the spine of scapula; the coarse râles previously noticed, which may have been moist, pleuritic sounds, have nearly ceased; flat percussion-sound, and absence of fremitus as before; since yesterday, at one examination, percussion over the mammary region gave tympanitic resonance, but now the sound is flat; no bulging of intercostal spaces; measurements of the two sides of the chest have been several times made, but the difference, if any, is slight.

The records state: Aug. 12th, temp., 101⅘°; pulse, 120; resp., 54. Evening: tympanitic resonance again observed over right mammary region; otherwise, no notable change in symptoms and physical signs.

13th.—Temp. 103⅘°; pulse, 160; resp., 80; coughs but little; moans occasionally. 6 P.M.: temp., 103°, resp., 76; pulse, 144. On the 14th and 15th little change occurred, the symptoms and physical signs remaining as before. The axillary temperature on the morning of the 14th was 101⅘°; resp., 80; pulse, 140. Evening: temp., 104°; pulse, 160; resp., 88. 15th: morning temp., 103⅘°; pulse, 140; resp., 84.

On or about August 15th the point of the hypodermic needle was introduced into the chest, about one inch below the lower angle of the scapula, but with no result; and, several days later it was again introduced two-thirds its length, without touching the liquid. On subsequent examination little change was noticed, either in symptoms or physical signs, except that, on August 20th, the records state that there was tympanitic resonance on percussion over both the infra-clavicular and mammary regions, while there was flat percussion-sound posteriorly; bronchophony was present in the scapular region, and the respiratory murmur observed when the ear was placed over the scapular and infra-scapular regions was indistinctly vesicular, or broncho-vesicular. Everything possible was done to sustain the vital powers; but during the month of September the patient gradually lost ground, becoming by degrees weaker and more wasted, and the febrile movement continued of a hectic character.

On Sept. 18th the axillary temperature was 101°, and the lymphatic glands of the neck were observed to be prominent. Death occurred October 2d, from exhaustion.

Autopsy on Oct. 3d: Is much wasted: abdominal organs apparently healthy; the liver extends two inches below the ribs; a few old pleuritic bands unite the anterior surface of the left lung to the ribs; this lung healthy, but not fully inflated; the anterior surface of the right lung is united to the ribs by adhesions firm but somewhat elongated; posteriorly over this lung is a purulent exudation extending from one inch above the base to within one inch of apex; vertical diameter of purulent collection about two and a half inches; lateral diameter about two inches. It is walled in anteriorly by the lung; posteriorly, by the costal pleura, which is nearly one line thick, and is easily detached from the ribs; and laterally, by adhesions. This abscess, therefore, extends over the posterior surface of the upper and lower lobes, and slightly over the middle lobe; the liquor puris has been mostly absorbed, so that the contents of the abscess, which have a pultaceous consistence, are composed mainly of the débris of the cell-walls and nuclei of pus-corpuscles; very few unbroken cells can be discovered by the microscope, but the mass consists mainly of granular matter with

shiny, oily particles resulting from granulo-fatty degeneration and destruction of the cells; the entire amount of purulent matter is not more than one ounce, probably less; lung underneath the pus apparently somewhat compressed, but healthy; mucous membrane of air-passages also healthy; an abscess in the right side of the neck, resulting from the adenitis and cellulitis, contains about two teaspoonfuls of pus; moderate hyperplasia, without cheesy degeneration of bronchial and mesenteric glands.

There are several facts of interest in this case. One was the difficulty of diagnosis. The differential diagnosis of pleurisy with effusion, and pneumonia in infancy, is often very difficult; for those signs which we rely on, as indicating the presence of a liquid in adult cases, are, for the most part, absent, or feebly marked in the infant, even when the amount of liquid is large. In the pleurisy of the infant we may notice, when the ear is applied over the affected side, bronchial respiration, broncho-vesicular or vesicular, for all these modifications of respiratory sound are transmitted through the liquid, either from the lung on the affected side, or from the healthy lung of the opposite side, since the small amount of liquid in infantile cases does not present a barrier to the transmission of sound, as in adult cases. The pleurisy in the above case being on the right side, the important sign of displacement of the heart was lacking, which is commonly present in infants as well as adults when the effusion is on the left side. Repeated measurements showed no notable difference in the two sides. The slight difference noticed in the examinations varied so much that we were in doubt whether there was any actual difference in the dimensions, the tape being carried from the middle of the sternum to the spine a little below the nipple.

I was led to diagnosticate pleurisy, contrary to the opinion of other good observers, from the fact that there was such extensive flatness on percussion developed in so short a time—the percussion-sound of pneumonia being dull, but not flat; from the absence of fremitus when the hand was placed over the infra-scapular region; and from the character of the respiratory sounds, which were not so distinct, and were more distant than in cases of pneumonia. Nevertheless, there was no bulging of the intercostal spaces; and, according to my experience, there frequently is none in the pleuritic effusions of infancy, even when the quantity of liquid is quite large. Why the hypodermic needle did not touch the pus I am unable to say. Subsequently, the persistence of the symptoms, especially of the fever, confirmed the diagnosis. The profession have learnt in recent years that pleurisy with effusion is not uncommon in infancy and childhood, and that it is often suppurative in those who are cachectic—as after scarlet fever—and in foundlings. It is seldom that an epidemic of scarlet fever occurs in New York, that I do not meet cases of empyema as a sequel of this exanthem, and almost every year cases of idiopathic empyema occur among the children in our asylums.

Dr. Smith remarked that he had sometimes observed fremitus in undoubted cases of pleuritic effusion, and that in some cases he was able to explain its occurrence as follows: The lung became attached by pleuritic adhesions to some part of the parietes of the chest, against which it was more or less compressed. This gives rise to similar anatomical conditions for the production of fremitus, as in pneumonia; namely, a solid lung lying against the ribs. Thus, in one case in which fremitus was observed along the side, and upon the front aspect of the chest, the subsequent autopsy showed the presence of adhesions at these points. There is another interesting fact as regards the pleuritic effusions of young and feeble children. They are prone to atelectasis, and the liquid meeting therefore less resistance on the side of the lungs than of the ribs, compresses the lungs, while, as stated above, it produces little effect in pressing outward the intercostal spaces and the ribs.

Dr. Van Giesen referred to a case of pleurisy which progressed from its inception to the post-mortem without cough.

THE DIAGNOSIS OF PLEURISY FROM PNEUMONIA.

Dr. Janeway remarked that there was usually great difficulty in diagnosticating pleurisy from pneumonia. Some authors believed that the presence or absence of vocal fremitus would settle the question. He had met, however, with vocal fremitus in pleurisy, and found it absent in pneumonia. He recalled two cases of empyema in which there was flatness along the inter-lobar line, bronchial breathing, bronchophony, and exaggerated vocal fremitus over the flat region. An hypodermic needle was introduced both times, but no fluid was discovered. There was a still more doubtful series of cases, in which, at the outbreak of empyema, you get crepitation in the line of the axilla, followed by bronchial breathing, bronchophony, and flatness. Here were the physical signs of pneumonia, with nothing more to help the diagnosis than the protracted course of the disease and the occurrence of hectic fever.

In using the hypodermic needle upon the chest, he had often failed to get fluid when fluid actually existed in the pleural cavity. He believed that the failures could be explained in several ways. The suction of the syringe might not be perfect, a piece of false membrane might be pushed in front of the needle, or a flake of exudation might surround the point, or the point of the needle might enter an adherent portion of the lung. He generally used a veterinary hypodermic syringe for the purpose, as the aperture was larger and less apt to become clogged.

Dr. Smith had frequently met with cases of empyema in which the lung was adherent at different points. In the latter situations he had detected vocal fremitus.

Dr. Janeway had met with such adhesions in which vocal fremitus was not present, while, on the other hand, he had found fremitus over a space in which fluid was imprisoned in a tight sac.

CONCERNING A FREE OPENING IN EMPYEMA.

Dr. Smith remarked that an interesting point arose in reference to the treatment of empyema when it was known to exist. Of course it was proper to let out the pus. But how, was sometimes the question. He had a case in private practice of empyema after scarlet fever, and had been aspirating the chest for six weeks, at intervals of seven or eight days. The case had not progressed well, and he was inclined to think that a free opening would be preferable.

Dr. Post was in favor of making a free opening in such cases, and of allowing it to remain.

Dr. Janeway thought it was well to try aspiration once or twice, with a view of diminishing the size of the cavity; but, failing in the latter attempt, it was then advisable to make a free and permanent opening.

Dr. Post had noticed that, in cases of empyema,

especially in children, there was very rapid improvement after free evacuation.

Dr. Levis referred to a case he had treated in 1865. The patient was a man from whose chest he had removed seventy-two ounces of pus, and there was no reappearance, the recovery being perfect. He also alluded to the case of a child, aged two years, from which sixteen ounces were evacuated at one aspiration. The chest opening was closed hermetically, according to Howard's plan. There was no reformation of the pus, and the child made a perfect recovery. He also alluded to cases in which the pus reaccumulated after aspiration, and where it was necessary to establish free drainage. Whenever the openings became closed, hectic fever resulted.

Dr. Smith wished, in that connection, to refer to a point in reference to the diagnosis of these cases. In the adult it was well known that aid in diagnosis was given by measurement. Not much, if any, assistance was given by such a method of procedure in children. Especially was this the case in weakly subjects who had œdema after scarlet fever. Such children were very prone to atelectasis; and when pus accumulated in the pleural cavity, the lung was compressed rather than the ribs thrown out. He believed that, in the majority of such cases, there was not much difference in the measurement of the two sides. In one instance the circumference on the affected side was less than that on the other.

Dr. Wyeth stated that it was the practice of König, a German surgeon, to remove a section of the rib one and a half centimetres long, when the intercostal spaces were too narrow to allow free drainage. König then used a three-per-cent. solution of carbolic acid as an injection.

Dr. Robinson believed that there were only two signs that enabled any one to diagnosticate pleurisy, viz., absolute dulness, and absolute absence of respiratory murmur.

Dr. Janeway relied a great deal upon the distant respiratory sound in pleurisy with effusion.

(To be continued.)

Correspondence.

LITHOTRITY WITH EVACUATION OF FRAGMENTS.

To the Editor of The Medical Record.

Dear Sir:—In your editorial of August 16, 1879, page 159 of the Record, on "Lithotrity with Evacuation of the Fragments—Part I. The Development and Principles of the Operation," it is stated that "he (Prof. Bigelow) saw the fact, recognized it, and promptly made use of it. The fact was the tolerance of the bladder to the use of instruments within it. . . . . Many lithotritists went beyond the three-minute rule, but they did it only occasionally and, as it were, under protest; . . . yet no one, until Prof. Bigelow, drew what seems now such a palpable inference. Sir Henry Thompson claims that he did so; but, so far as we can judge, he did no more than many others; that is, he departed, in exceptional cases, from the rule of short sittings; but it was only a drift, and was very different from Prof. Bigelow's sudden recognition of a principle of general application." And further on, "he (Prof. Bigelow) had then enunciated the principle; he had put lithotrity upon a new basis; he had *fait accès*."

Some twelve or thirteen years ago, my friend, Prof. E. M. Moore, of Rochester, gave me his conception of an ideal operation of lithotrity, by which the stone was to be seized, crushed, and entirely removed from the bladder at a single sitting. Prof. Moore spent much time upon an instrument devised for this purpose, and, it seems to me, recognized the fundamental principle of Bigelow's operation, namely, "the tolerance of the bladder to the use of instruments within it." As evidence of this, I refer to Prof. Moore's article, "A New Method of Lithotrity," read before the American Medical Association in 1870, and published in Vol. XXI. of Transactions, at page 251.

I beg leave to quote briefly from this article, page 251: "I have long been convinced that lithotrity cannot be a successful rival of lithotomy until its processes can be finished at the same sitting that commences them. This implies a period of time short enough to be tolerated. Lithotomy is a violent proceeding." . . . . Page 252: "But the severe handling in lithotomy receives its compensation in the fact that the foreign body is absolutely removed, and the process of repair is begun with no cause of interference. . . . . Lithotrity is usually but the withdrawal of half the splinter, and converting the remaining half into a sort of chevaux-de-frise, bristling at all points. The period of time that seems allowable in lithotritic handling is limited by Erichsen to ten minutes. Thompson prefers five. If every particle were removed, I cannot but believe that much more may be allowed. Probably thirty minutes could be borne quite as well as in the ordinary condition subsequent to a sitting."

Then follows a description of the instrument, and a report of a case in which it was used, with the statement on page 254 that "my plan proposes a sort of reversal of all the methods of lithotrity; to hold the stone gently, and not crush; to rub down, not break; to wash away at once, and not allow the fragments to be rounded by time and attrition, as preparatory to their evacuation."

On account of pressure of professional labor and lack of skilled workmen, Prof. Moore did not complete his instrument in all its details; but it seems evident, on reading his paper, that he had drawn the "palpable inference," and made "the recognition of a principle of 'general application,'" on which the success of Dr. Bigelow's operation depends.

Very respectfully yours,

William S. Ely.

Rochester, N. Y., Oct. 29, 1879.

PHARMACOPŒIAL REMEDIES.

To the Editor of The Medical Record.

Sir:—It is generally expected that regular physicians will use the remedies or formulæ of the Pharmacopœia as far as they will readily meet the wants of patients; and especially in preference to secret and advertised medicines. But how often is this neglected, even among the Nestors of the profession—those whom we delight to admire and honor. In a late work on clinical medicine by a standard authority, for constipation we find recommended Lady Webster's dinner pills, *Grains de Santé*, Tamar Indien, and other like remedies, as if the Pharmacopœia did not afford equally good and even better laxatives. The so-called Lady Webster pill is that of aloes and mastic of the U. S. P., which was not suggested by Lady Webster, but merely preferred by her. The formula is nearly as old as that of the aloes and

myrrh pill, or pil. ruti, which is nearly two hundred years old. The object of the mastic is to retard the solution of the aloes in the small intestine, and thereby cause it to act upon the large bowel. The pill is a good one, but should not be called Lady Webster's, at least by physicians, for that leads to the belief that Lady Webster was a better prescriber than the doctor.

The recommendation of the *Grains de Santé* is in still worse taste. They are composed of aloes and jalap, and are very carelessly made indeed, and apparently not of the best materials. The combination seems a strange one, but is an excellent one, when both the small and large bowels are to be acted upon. One grain of extract of socotrine aloes and one of resin of jalap makes an active pill for most persons; one grain of the former and two of the latter is far more powerful in its action than most persons would suppose. They can be supplied by apothecaries, either silvered or sugar-coated, and made of purer articles at a less price than the imported imperfect pills. Tamar Indien is apparently composed of resin of jalap in fig-paste; they are very expensive indeed. The Friedrichshall, Pullna, and Hunyadi waters are little more than solutions of epsom and glauber salts, and should not be prescribed for poor persons at least, as their chemical composition is well known, and a prescription can easily be given for these inexpensive articles, with great saving to persons in moderate circumstances.

PHARMACOPŒIA.

CAUSE OF SUDDEN DEATH IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. M. P. Jacobi's note upon this subject, with the replies to it, were perused with interest in view of a case I desire to report as evidence corroborative of Dr. Robinson's statement, that pain of the puncture *pur et simple* may be the cause of a reflex impression upon the nervous system and heart sufficiently overwhelming to induce death. The case is as follows: W. Bronson; farmer; married; æt. 43. Left pleural cavity completely filled with effusion; heart beating some three inches to right of right border of sternum. Cervical veins turgid. Great dyspnœa. Had been sick four months. Aspiration was attempted. The act of puncturing gave him no pain, but a few minutes after the needle was introduced he began to complain of pain in the region of the wound. It was also diffused over that side of the thorax. Moving the needle did not increase it greatly. One *gallon* of serum was withdrawn without, apparently, any excessive diminution of the contents of the cavity. Not a single unfavorable symptom save the pain was experienced. Four weeks later the effusion, in spite of treatment, being as great as before, aspiration was again essayed. From the minute after the needle was inserted he complained of pain, which in a short time became most intense. Allowing the needle to rest quietly, by intermitting the aspiration a hypodermic of morphia was given. After a sufficient time, this not sufficing, the needle was withdrawn, reintroduced, and aspiration proceeded with. About fourteen ounces of fluid had been *very slowly* taken out, his complaints steadily increasing, when a most alarming collapse came on, which only, by the utmost exertions, was prevented from proving fatal. The suffering continued for several hours. A third time, one week later, I again attempted aspiration, the cavity as tense as before; this time preceding, by a hypodermic of morphia a sufficiently long time for its effects to be thoroughly felt, the introduction of the needle. Less than one ounce had been withdrawn, he complaining a little, when a most overwhelming—I can describe it in no other way—attack of pain supervened, and the same collapse came on, which once more seemed likely to prove fatal. Aspiration was not again attempted.

In this case the pain alone was the sole cause of the collapse. In the first operation, where he had very little pain and such a large quantity of fluid was taken away, not a single unfavorable symptom made its appearance. In the second operation, where the pain was most intense, it caused a nearly fatal prostration. The small quantity of fluid removed forbids any other assumption. The effect the last time, where every precaution was taken, is confirmatory of this; for less than one ounce had been aspirated when the same alarming symptoms supervened.

Respectfully,

G. E. GOODFELLOW, M.D.

ELECTRICITY A PARALYZING AGENT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The article under the above heading, by Dr. Poole, published in No. 18 of the MEDICAL RECORD, scarcely requires any refutation. To every one acquainted with electro-physiology a few quotations from it will be sufficient to prove the fallacy of the author's theory. For instance, he says:

"It is important here to note, as negative evidence of the truth of our proposition, that Prof. Trowbridge, of Harvard College, *has demonstrated* (italics ours) that the supposed natural currents of electricity, believed by Matteucci and Du Bois-Reymond to be present in nerve and muscle in repose, do not exist," etc.

"Nor is electricity known to be generated at all in the bodies of men and animals, since even in the case of certain electric fishes, which display a remarkable use of this agent, the electricity which they discharge may be simply induced in them by the opposite electricity of the media surrounding them," etc.

"In view of the present state of knowledge on this subject, those who assert that natural electricity plays any part in the vital operations of the living organism, will have to begin anew the task of eliciting evidence in support of that doctrine."

"We assert that electricity is a paralyzer of nerve-tissue, and we claim that *all the effects it produces* (italics ours), as employed for therapeutical and physiological purposes, may be readily accounted for on this view of its action."

"We shall appeal to the recognized authorities themselves in support of our thesis," etc.

Fortunately the time for speculating and theorizing, which had so long retarded the progress of medicine, has passed away, and facts based on experimental researches have now to be given in support of every assumption. The existence of inherent currents in the muscles and nerves, discovered already by Galvani, was demonstrated half a century later with most exact scientific methods by Du Bois-Reymond,* and the elucidation of the laws of the electrical phenomena in muscles and nerves constitutes now one of the best chapters of physiology—the muscle and nerve physics. Hermann† attempted to attack this

* E. Du Bois-Reymond: Untersuchungen über thierische Electricität. Berlin, 1848 and 1849.

† L. Hermann: Weitere Untersuchungen zur Physiologie der Muskeln und Nerven. Berlin, 1867.

theory with arguments far more striking than those brought forward by the author of the article, but they only served to establish on a still firmer basis the whole doctrine of animal electricity.*

As regards the paralyzing hypothesis of electricity, one experiment with the galvanoscopic frog-preparation will prove its absurdity.

By stimulating the sciatic nerve with a very weak induced current, scarcely any muscular contraction is produced; but if we pass through the nerve an ascending galvanic current and then stimulate it as before (in its catelectrotonic region) with the same induced current, a powerful and prolonged contraction—tetanus—will follow. The author of the paper would explain these phenomena by paralysis of the nerve causing the contraction of the liberated muscle. If we now reverse the direction of the polarizing current, and again stimulate the nerve with the same induced current and at the same point as before (now anelectrotonic region), no contraction can be called forth even with the most powerful current. Or, instead of reversing the electrotonizing current, we simply stimulate the nerve above it, and thus produce the most powerful tetanus, while by stimulating the nerve below the electrotonizing current, no contractions are produced, however strong may be the stimulating current. We may repeat this experiment indefinitely, and shall always obtain the same result—either tetanus or a complete absence of contractions, according to the direction of the polarizing current. If, then, the author considers the contraction a consequence of the paralysis of the nerve induced by the current, he must admit that the absence of contractions is the result of an opposite, *i. e.*, tonic condition of the nerve, although induced by the same current. Therefore, according to his own theory, under certain conditions the electric current produces in the nerve a condition entirely reverse to paralysis assumed by him. Should the author object (in accordance with his theory) to the stimulation by electricity, the same result may be obtained by applying a chemical stimulus (solution of common salt), or even by a mechanical stimulus. Any one acquainted with Pflüger's Physiologie des Electrotonus will find it easy to give similar illustrations.

The author has conceived an erroneous theory, because he has *not* "appealed to the recognized authorities" in electro-physiology. He was evidently impressed by the reasonings of some eminent physicians (Radcliff, Russell Reynolds, Anstie, and others), whose merits are certainly unquestionable in matters of practical medicine, whereas in electro-physiology the classical researches of Du Bois-Reymond, Pflüger, Bernstein, and some others, have to be taken as a guide.

WM. B. NEFTEL.

* [illegible] Muskel und Nerven Physik. Berlin, 1877, p. 349.

Obituary.

OLIVER WHITE, M.D.,

NEW YORK.

DR. OLIVER WHITE died Nov. 7th, at his residence in this city, of cardiac disease, aged 69 years. He was born in the town of Somers, N. Y., a few miles from this city, April 9, 1810. By descent Dr. White belonged to one of the oldest and most distinguished families in New England. His great-great grandfather was Rev. Ebenezer White, the lineal descendant of Judge Thomas White, of Weymouth, Mass., who was a member of the Colonial Court in 1636, and figures with honor in the musty colonial records of that time. Dr. White's great-grandfather was the Rev. S. White, but his grandfather appears to have rebelled against the traditions of the elders, and to have insisted upon studying medicine in preference to theology, and appears in the local annals as Dr. Ebenezer White. His son, Ebenezer White, Jr., followed in the footsteps of his father, and was a physician of high local repute in Somers and the adjacent towns. Oliver White, son of the latter, pursued his first medical studies in his father's office, but subsequently entered the medical department of Yale College, where he was graduated doctor of medicine in 1831, being at that date 21 years old. He was licensed to practise by the State Medical Society of Connecticut during the same year, and at once entered upon active practice, removing to this city for that purpose. In 1836 he was elected a member of the Medical Society of the County of New York, and served both as President and as Vice-President of that organization. About that time there was a great deal of professional controversy, bickering, and division among medical practitioners in this city, and it was in the midst of this state of things that a few young practitioners, Dr. Willard Parker, Dr. White, and others united in the formation of that now venerable institution, the Academy of Medicine, of the original Fellows of which Dr. White was one of the few survivors, having served it in the capacity of Vice-President. He was also one of the founders of the Society for the Relief of the Widows and Orphans of Medical Men—indeed, one of its principal promoters, having been at different times its President and Vice-President, and for over twenty years one of its active managers. He was a member of the American Medical Association and of the State Medical Society, to whose "Transactions for 1864" he contributed a valuable memoir entitled, "Impalement through the Vagina, with Recovery." Dr. White has been for years one of the consulting physicians of the Presbyterian Hospital and the President of its Medical Board, serving at the same time upon the consulting staff of the Northeastern Dispensary and as a Trustee of the New York Dispensary. He received the honorary degree of M.D. from Bellevue Hospital Medical College in 1875. Dr. White leaves a considerable fortune, but no direct heirs. His widow survives him. The funeral services took place at one o'clock, P.M., Nov. 10th, at the First Presbyterian Church, Fifth avenue and Twelfth street, of which he was an active and valued member. The New York Academy of Medicine and the Medical Society of the County of New York, and other Societies of which the deceased was a member, attended the services.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 2d to November 8th, 1879.

SUTHERLAND, CHAS., Col. and Surgeon. Having reported at Division Headquarters as Medical Director of the Division, is assigned to duty at the Presidio of San Francisco, Cal., from this date. S. O. 130, Div. of the Pacific and Dept. of California, Oct. 24, 1879.

MUNN, C. E., Capt and Asst Surgeon. To take post at Fort Hays, Kan., and after reporting there, to

proceed to Fort Garland, Col., and report to Col. McKenzie, 4th Cavalry, for duty with the column now organizing there. S. O. 217, Dept. of the Missouri, Oct. 30, 1879.

HOFF, J. V. R., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Shufeldt, to comply with orders from A. G. O. in his case. S. O. 98, C. S., Dept. of the Platte.

SHUFELDT, R. M., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Laramie, and assigned to duty as Post Surgeon at Fort Fetterman, Wyo. T. S. O. 98, Dept. of the Platte, Oct. 29, 1879.

APPEL, D. M., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Stanton, and assigned to duty at Fort Bayard, New Mex., as Post Surgeon. S. O., 109, Dist. of New Mex., Oct. 31, 1879.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. Assignment to duty at Fort Bennett revoked, and to repair to Fort Pembina, Dak. T., and report to the comdg. officer for duty as Post Surgeon. S. O. 118, Dept. of Dakota, Oct. 27, 1879.

Changes in the Medical Corps of the Navy during the week ending Nov. 7, 1879.

BOGERT, E. S., Surgeon, and M. D. JONES, Pd. Asst. Surgeon, detached from the U. S. S. Monongahela, and wait orders.

WAGGENER, J. R., Pd. Asst. Surgeon, detached from the New York School Ship St. Mary's, and ordered to the Receiving Ship, Boston.

DEANE, C. W., Asst. Surgeon, detached from the Receiving Ship, Boston, and wait orders.

ROSS, JNO. W., Pd. Asst. Surgeon, detached from duty with the National Board of Health, and ordered to the School Ship St. Mary's.

LIPPINCOTT, GEO. C., Pd. Asst. Surgeon, detached from the Navy Yard, New York, and ordered to special duty, Bureau of Medicine and Surgery.

NOURSE, C. J., Asst. Surgeon, detached from the Receiving Ship, Norfolk, and ordered to U. S. S. Tallapoosa, temporarily.

ANDERSON, F., Pd. Asst. Surgeon, ordered to the Navy Yard, New York.

GARDNER, J. E., Asst. Surgeon, ordered to the Receiving Ship Franklin, Norfolk, Va.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 8, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 1, 1879....	0	13	41	1	66	32	0	0
Nov. 8, 1879....	0	12	36	1	64	40	1	0

THE YELLOW FEVER.—The number of deaths that occurred from yellow fever in the city of Memphis for the week ending November 8th, was eight. No new cases have been reported within ten days.

THE PLAN FOR A NATIONAL PUBLIC HEALTH ASSOCIATION.—The following circular explains itself:—

NATIONAL BOARD OF HEALTH,
WASHINGTON, D.C., Nov. 1, 1879.

To the Sanitarians of the United States:

By the act establishing the National Board of Health it is made the duty of the board to report to Congress at its next session a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be established between State or local systems of quarantine and a national quarantine system.

In order to fulfil this requirement, the National Board of Health has requested those interested in the subject to communicate their views to the board, and now respectfully invites members of State and local boards of health and sanitarians generally to meet with it in conference in the city of Nashville, Tenn., on the 18th to 23d November meeting of the American Public Health Association.

J. L. CABELL,
President National Board of Health.

T. J. TURNER,
Secretary National Board of Health.

THE CHINESE IDEA OF DIET.—Dr. Dauphin W. Osgood, Surgeon to the Foochow Medical Missionary Hospital, Foochow, China, in his interesting report just published, says:

"The Chinese usually inquire 'What shall I eat?' and if we would gain their confidence, it is well to give them careful dietetic directions, as the native doctors rarely neglect to give minute instruction in regard to food.

"I take a few directions from the 'Golden Mirror,' a native work compiled by order of the Emperor Chien Lung, relating to diet. It is said that horse-flesh may be eaten, if care is taken to avoid the part that has been covered by the saddle.

"The liver must not be eaten, as it will cause death, unless the eater avails himself of the following receipt, which is published in the above mentioned work:

"℞. Take the excrement of a male rat, pulverize and dissolve it, and take internally as required.

"A white horse with a black head, if eaten, will cause insanity. Women who are pregnant are required to abstain from eating turtles, chickens, and ducks, for fear that their offspring will be deaf and dumb. It is to be feared that the child will have hare-lip if the mother eats rabbits.

"Pears are said to cause the ague, and onions, if eaten in the first month, will cause skin diseases.

"Nearly all kinds of food are divided into three general classes, viz., hot, cold, and medium. Medicines are similarly divided with the addition of two or three extra divisions. Diseases are also classed as hot and cold.

"The Chinese are gradually learning to use western medicines, and the demand for them will doubtless increase. The sales for the most part have been quinine, tr. iron, carbolic acid, and santonine. The receipts from sales have amounted to $76.77. There is occasional inquiry for medical books. Dr. Hobson's works are somewhat behind the time, having been printed twenty years or more, but are liked by the Chinese. Dr. Kerr has done good service by translating a work upon chemistry, and is preparing a work upon materia medica, also one upon skin dis-

cases. A good work upon anatomy, well illustrated, is a great desideratum in China. This might be effected by a few of the medical missionaries dividing the work, and then submitting their several translations to a committee for final revision before publication."

Prof. James Aitken Meigs of Jefferson Medical College, Philadelphia, died Nov. 9, aged 50 years. An obituary notice will appear in our next issue.

Treatment of Diphtheria. Dr. F. A. Hubbard, Taunton, Mass., writes:—

In numerous cases of diphtheria I have found the following of great use:

℞. Sodii hyposulphitis,
Potassæ chloratis, āā..... ʒ i.
Aq. cinnamomi..... ℥ iv.–viii.
M.

A more convenient form is:

℞. Sod. hyposul.,
Potass. chlo., āā..... ʒ ss.
Ol. cinnam..... gtt. x.
M.

This mixture may be dissolved in water as required.

The solution may be used as a gargle, taken internally, or applied as a spray. With its use the fetor is reduced to little or nothing, and improvement is usually rapid. In connection with this, I have used small quantities of "Tully's powder," with quinine, brandy, and other supporting measures, as required in each case.

Externally, over the swollen glands, hot fomentations or camphorated oil with a flannel bandage.

If there is dyspnœa from extension of membrane downward into the bronchi, the vapor of lime slaking in hot water. A coffee-pot is useful here, for the most unwilling can be made to inhale the steam as it escapes from the spout. However, when the lungs are attacked, treatment is of little account. At the outset of the disease I usually give a mild aperient.

Faculty of the University of Maryland. The following changes have been made in this Faculty. Prof. Frank Donaldson has resigned the chair of Physiology and Hygiene, and will occupy the chair of Clinical Professor of Diseases of the Throat and Chest. Prof. F. T. Miles will fill the chairs of Physiology and Anatomy, in addition to his duty as Clinical Professor of Diseases of the Nervous System.

The Commitment of Persons to Hospitals for the Insane.—Dr. Isaac Ray delivered a very interesting lecture on this subject before the Philadelphia Social Science Association at the College of Physicians in that city, on Thursday evening, October 23d. Dr. Ray began by remarking that just precisely what legislation is required, touching this subject, is one of the vexed problems of social science. In the sudden and violent forms of insanity the patient is placed under strict surveillance, his wishes are disregarded, etc., and yet this is justified by common sense and by the common feeling of mankind. Nobody would question the right of a man to confine his wife to the house if she were bent upon self-destruction or abused her children. But being in institutions, they can be better treated than at home, and it would seem natural to make choice of them for the confinement of patients. The matter is regulated by an act of Assembly passed in 1869, which requires the sanction of two physicians. It is alleged that physicians may be biassed by their relations to the family, by false representations, or make mistakes, and by some it is proposed to make the confinement of the insane the subject of a legal investigation, to be conducted by some magistrate, judge, or commissions appointed for the purpose. If there is to be an inquisition, who so competent to make it as medical men, when it could be so done without unnecessary trouble or publicity. It may be that the liberty of any person in the community is at the mercy of the physician, but so is the life of any one who is ill. In signing the certificate of insanity the physician performs a professional service, and is responsible to the laws of his country. If the matter were supervised by a judge or magistrate, owing to the stress of other duties, it would become a mere matter of form. It is not improbable that persons are detained in confinement who never were insane, or kept confined after they have recovered. Where this is supposed to be the case, friends should be called and made to show cause why the patient should not be detained; the matter should be advertised, and the investigation of each case occupy at least two days. To hurry through an insane asylum once or twice a year and listen to all the tales told would not be enough. Proper judicial investigation is what the public demands. The officers and physicians of our hospitals and institutions have no interest in detaining a patient. Their salaries are the same in either alternative. The safeguards already established are sufficient for the purpose; but at the same time it is advisable that there should be a supervisory board established, which should be directly responsible to the government. The act of 1869, however, provides that application can be made to the judges, and any person can be brought before them and have a hearing upon a writ of *habeas corpus* at the request of a respectable citizen. The speaker then referred at some length to the pauper insane supported at the public expense, and thought that they should have the benefit of hospital treatment, and that towns and cities should be compelled to send their paupers, who could not be comfortable elsewhere, to hospitals, and also that people should not be allowed to keep insane persons at home in confinement.

Laryngeal Phthisis.—The mooted question in regard to the pathogeny of this affection has received some additional light through the labors of Heinze, of Leipsic. This author cites 475 cases which were examined in the dead-house. He found the larynx ulcerated in 30.6 per cent. of all the cases, and the intestines in 51.3 per cent. The disease was oftenest found between the ages of 21 and 30. There were tubercles in the larynx or trachea, or both, in 94 per cent. of the cases. The author concludes: first, that primary tuberculosis of the larynx is not proven; second, that it is impossible to tell positively whether an ulcer is tubercular without an examination of the lungs, although a very probable diagnosis may be made by the help of the laryngoscope; third, a cure of laryngeal tuberculosis will, most probably, never be made.—*St. Louis Clinical Record.*

Increase of Consumption in Southern Latitudes.—Attention has heretofore been called to the fact that there has been a steady increase of deaths from phthisis among the natives of the Madeira Islands, and in Naples, Florida, and other health resorts. It now appears that the same thing is happening in New Orleans, and the mortality has recently been so great that attention has been called to the fact by the local press. During the first week in August, the

mortality from consumption in New Orleans was twenty-four, which at the same rate throughout the year would be an excess of that from all fevers combined. It is thought that the increase is only in part due to the visitors coming south for their health.—*Phila. Med. and Surg. Reporter.*

EDITORIAL CHANGES.—The editorial management of the *Canada Medical and Surgical Journal* has changed hands. Dr. Fenwick, who has edited the journal for the past fifteen years, has resigned, and his place has been taken by Drs. Geo. Ross and W. A. Molson. The recent numbers keep up its reputation for a well-conducted journal.

MEDICAL COLLEGE OF OHIO.—Dr. Jas. G. Hyndman, by unanimous vote of the trustees, has been appointed Lecturer on Medical Chemistry at the Medical College of Ohio. Dr. Hyndman has been associate editor of the *Cincinnati Lancet and Clinic*, and during this time has been connected with the college laboratories in various departments.

THE WAY IT WAS DONE IN LOUISVILLE.—Under this heading the editor of the *Medical Herald* charges a distinguished New York oculist with highly unprofessional conduct. It is stated that for two months prior to September 25th, the local press published announcements at intervals, to the effect that the gentleman referred to would visit Louisville, and would see patients at 2 o'clock every day from Sept. 25th to Oct. 1st, at the office of a friend and former pupil. With the said announcements were the statements that the New York doctor was the greatest oculist, as well as hygienist in the world. He arrived, and received patients as it was said that he would. Notwithstanding the *Herald's* belief to the contrary, it seems so unlikely that the doctor knew anything of, or had anything to do with the newspaper publications, that we refrain from giving any names.

INDIANA, ILLINOIS, AND KENTUCKY TRI-STATE MEDICAL SOCIETY.—This Society met at Evansville, November 4th, 5th, 6th, and 7th. The annual address was delivered by the President, Dr. J. A. Ireland. Public addresses were made by Dr. J. M. Keller, of Louisville, and by Dr. E. H. Gregory, of St. Louis. A large number of papers were presented.

FROZEN MEDICINE.—It is asserted by Dr. Edwyn Andrew that many drugs can be given with superior advantage by first freezing them. Antiseptic, astringent, anti-emetic, and nauseous medicines come under this head, and can be combined with ice without difficulty. An especially good feature of this plan is in its affording a possibility of the stomach's retaining medicines which it would reject when given in ordinary ways.

HOMŒOPATHY IN CAMDEN COUNTY, N. J.—The regular profession in Camden County, New Jersey, has been very much exercised of late.

Some time ago, the county erected an insane asylum, and appointed a committee to manage it. This committee, not being well posted in medical matters, suddenly appointed a homœopath as superintendent of it. This, of course, isolated the institution from all the benefits of regular medical skill, and from all the great insane asylums of the United States. After a six months' trial, the experiment was decided to be a failure, and a regular physician was placed in charge. The homœopath, who is said to have been a person of more than average ability, stated to the board in his defence, that he had administered the homœopathic treatment "similia similibus curantur" to a person with epilepsy, until the patient became so bad that he had a thousand fits in six weeks. Then, by resorting to regular doses of chloroform and ice to the spine, the fits were stopped.—*Phila. Med. Times.*

A NEW VEGETABLE PEPSINE.—Dr. Bouchut, of Paris, created much interest at the recent International Medical Congress by exhibiting a new vegetable pepsine, obtained by himself and Prof. Wurtz from the papaya of Java and South America. This new substance, which is called papayine, possesses all the digestive properties of animal pepsine, making very short work of a piece of beefsteak.

The power which the papaya plant has of making meat tender has long been utilized by the inhabitants of Java, and has heretofore been discussed in medical journals. To Dr. Bouchut, however, belongs the credit of furnishing us with precise knowledge on the subject, and of extracting the active principle.—*Louisville Med. News.*

CARE OF THE INSANE.—The necessity of giving more room to the insane is becoming appreciated in Pennsylvania at least. The private insane asylum at Kellyville has recently been enlarged; and, at the Pennsylvania Hospital for the Insane, another ward is now building, not for the purpose of receiving more patients, but in order to furnish more room for the present occupants.—*Phila. Med. Times.*

BOOKS RECEIVED.

TRAITÉ PRATIQUE ET CLINIQUE DES BLESSURES DU GLOBE DE L'ŒIL. Par le DOCTEUR A. YVERT. Paris: Germer Baillière et Cie. 1880.

PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By FREEMAN J. BUMSTEAD, M.D., LL.D., etc. In great part rewritten by the Author and by Robert W. Taylor, A.M., M.D. Philadelphia: H. C. Lea. 1879.

COUNSEL TO PARENTS ON THE MORAL EDUCATION OF THEIR CHILDREN. By DR. ELIZABETH BLACKWELL. New York: Brentano. 1879.

CONSUMPTION, AND HOW TO PREVENT IT. By THOMAS J. MAYS. New York: Putnam's Sons. 1879.

HEARING, AND HOW TO KEEP IT. By CHARLES H. BURNETT, M.D. Philadelphia: Lindsay & Blakiston. 1879.

THE THROAT AND THE VOICE. By J. SOLIS COHEN, M.D. American Health Primers. Philadelphia: Lindsay & Blakiston. 1879.

HEALTH PRIMERS. THE SKIN AND ITS TROUBLES. New York: D. Appleton & Co. 1879.

PREVENTION AND CURE OF CHRONIC CONSUMPTION. By DAVID WARK, M.D. New York: Authors' Publishing Co. 1880.

PHYSICIAN'S VISITING LIST FOR 1880. Philadelphia: Lindsay & Blakiston.

A MINISTRY OF HEALTH AND OTHER ADDRESSES. By B. W. RICHARDSON, M.D., F.R.S., etc. New York: D. Appleton & Co. 1879.

FIRST LINES OF THERAPEUTICS, ETC. By ALEXANDER HARVEY, M.A., M.D. Edinburgh: D. Appleton & Co. 1879.

MEMORIAL ORATION IN HONOR OF EPHRAIM McDOWELL, THE FATHER OF OVARIOTOMY. By S. D. GROSS, M.D., LL.D., D.C.L., Oxon. Published by the Kentucky State Society. Louisville, Ky.: J. P. Morton & Co. 1879.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. III. Edited by JOHN C. PETERS, M.D. New York: W. Wood & Co. 1879.

Original Lectures.

CLINICAL LECTURE ON MELANCHOLIA:

BEING THE SECOND OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY, DELIVERED UNDER THE AUSPICES OF THE COMMISSIONERS OF CHARITIES AND CORRECTION, AT THE NEW YORK CITY ASYLUM, WARD'S ISLAND, BY THE MEDICAL SUPERINTENDENT,

A. E. MACDONALD, M.D.,

NEW YORK.

MELANCHOLIA.

GENTLEMEN:—The patients whom I present to you to-day illustrate the second of the four forms in our classification of insanity—the form of melancholia. You will readily perceive that there is a very decided difference between them and those whom we saw at our last meeting—at once in their appearance, their attitude, and their conduct. We have now the asthenic as opposed to the sthenic form of insanity, depression taking the place of excitement. There is none of the liveliness which was before apparent in action and speech, and instead there is depression both of mind and body. In the former class the patient was drawn out of himself, was keenly alive to all that was said and done about him; now he is self-absorbed, his thoughts are turned inward, and he is too much concerned in the contemplation of his own griefs and sufferings to pay much attention to his surroundings. If he regards them at all, it is only because he sees in them fresh dangers or new impositions.

We are accustomed to speak of melancholia, as of mania, as either acute or chronic, sometimes taking account of the arbitrary division based upon the duration of the disease, but oftener, and more properly, having regard to the general type of the symptoms presented. Another division, depending upon the manifestations in the individual patient, recognizes the two forms—melancholia with frenzy and melancholia with stupor—in accordance with the approach toward mania on the one hand, or dementia on the other. It must be remembered that the clean-cut differences in the forms of insanity which we can draw in our descriptions, or illustrate by the selection of typical patients, do not obtain through all clinical cases; that there is a gradual approach of the different forms toward one another; and that we will often find patients so exactly upon the border-line between mania and melancholia with frenzy on the one side, or between dementia and melancholia with stupor on the other, that it is hard to tell just how to class them.

ESSENTIAL DIFFERENCE BETWEEN MELANCHOLIA AND MANIA.

Whatever the particular form which melancholia may assume, the essential difference between it and mania is, as I have said, the element of depression both physical and mental. We have now pallid face, feeble circulation, arrested secretions. The approach of melancholia is slower than is that of mania. There is no sudden and unexpected outburst, but the period of alteration is longer and is more likely to be appreciated by the friends of the patient, or even by himself. In fact, it is by no means uncommon for the patient to recognize the approach of his malady, to detect the want of reason in his fancies, and to endeavor to argue and steel himself against them, and perhaps for a time with success.

PROMINENT SYMPTOMS.

Sleeplessness is the first prominent symptom in this as in other forms of insanity; disturbance of the emotions follows; and positive delusions soon assert themselves. The patient is unable to apply himself to his former pursuits; he becomes fretful and ill-natured, his natural affections are blunted and soon transformed into actual suspicion and dislike of his family and friends, and into the firm belief that they are conspiring to do him injury, and this feeling is apt to go on to the production of violence either toward himself, or, in what appears to him self-defence, toward others, unless the plain indications in such a case are followed, and he is removed from his customary surroundings and associations.

PHYSICAL CHARACTERISTICS OF MELANCHOLIA.

The first case which I present to you shows plainly, as you see, the physical characteristics of melancholia, and in a very acute form. Indeed, this is but the fifth day of his asylum residence, and his admission followed very closely upon the recognition of his disease. He is much emaciated, feeble in movement and in voice, and his face wears the expression of great mental suffering. He shows you the banner, the carrying of which through the streets and into the churches led to his arrest; and he explains the reason of the inscription upon it. The inscription is, "Freemasons everywhere!—among women and children!—all working cautiously!—Guard children everywhere!" and the explanation is that, ascribing all his own troubles, real and imaginary, to the body named, he considers it his duty to give this warning to others.

SUPPOSED INFLUENCE OF SECRET SOCIETIES UPON THE INSANE.

It is remarkable how frequently the false ideas of the insane are based upon the supposed influence of secret societies upon them. And it is a practical point worth remembering, for it may lead to the detection of evidences of insanity in examinations, where, if the subject is not broached, the patient may not reveal his delusions. There are two or three channels, indeed, in which the delusions of melancholia are apt to run, and in my own examinations I am accustomed to lead the conversation to the subjects of freemasonry, spiritualism, witchcraft, and electricity, with a pretty fair certainty that in connection with one or other of them the insanity will be revealed, if it exists.

You see that the patient does not seek to argue in support of his belief as to the influence that has affected him; nor does he cite any manifestations by which he has detected the influence. He *knows* that the Freemasons are responsible for his troubles, and that is enough for him.

CHRONIC MELANCHOLIA.

The second patient is an older man than the first, and his disease is of longer duration and more chronic in character. He has an equally troubled expression of countenance; but he is better nourished, and is, indeed, in very fair physical health—and by this the chronic condition of his malady and the slight prospect of recovery are indicated, for, when a patient improves in bodily condition without a parallel improvement in mind, it is a very discouraging sign.

You see that the patient's throat presents the cicatrix of an extensive wound, and he tells you that he tried to kill himself just before coming to the asylum. This is the history of many other patients, and I can hardly recall a case of melancholia in which the patient recovered sufficiently to describe his own feelings, where he did not give an account, if not, indeed, of an actual attempt at suicide, at least of a very decided impulse in that direction.

SUICIDAL ATTEMPT.

This is the danger in melancholia as opposed to mania—of injury to the patient himself rather than to others; of the latter there is comparatively little fear. Patients suffering from melancholia with frenzy, do sometimes make attacks upon others, but the motive differs from that which actuates the maniac. In the one case it is fear, in the other anger. The former acts in self-defence, as it were. In endeavoring to escape from the dangers which beset him he attacks those who try to restrain him; or his sufferings become so intense that he turns upon the person whom he believes responsible for them.

But the main danger is that of suicide, and the tendency toward it is so general and so pertinacious, that it cannot be too carefully guarded against. The attempts at self-destruction do not always occur from the same motive. In the present instance the man tells us that he tried to kill himself because he thought others were trying to kill him; and, singularly enough, this most illogical reason is the one oftenest assigned. But in other cases the suicide is attempted or committed because the patient is so disheartened by his imaginary troubles or diseases that he despairs of escape or cure; or it may come from delusion, or from hallucination, as, for instance, where the act is committed in obedience to the voice of the Deity, which the patient imagines that he hears. A peculiarity which it is important to remember is, that there is often not simply a disposition to self-destruction in any possible way that may present itself, but to self-destruction in a definite and particular way. Hence, that a patient takes no advantage of means that are ready at his hand is no proof of his safety, for he may only be waiting to avail himself of some other means upon which he has determined. He may allow razors and pistols to lie in his room unused, and then drown himself at the first opportunity.

SUDDEN DESIRE FOR SELF-DESTRUCTION.

Again, the desire to destroy oneself may be created suddenly by the sight of means by which it may be gratified, just as sane men looking down from a steeple or a bridge feel impelled to throw themselves into the street or the stream below.

We know concerning this patient that there have before been insane members of his family, and that he was himself of intemperate habits, two items of information which we are apt to get regarding most of the patients admitted, at least to this asylum.

As to his present condition, you see that he is restless and apprehensive, and he inquires if he is about to be killed. This is a constant source of dread to him, notwithstanding the fact that he attempted his own life. Everything that happens seems to him to threaten the fate he fears. If a wagon stops at the door, it has come for his body; if a dark cloud crosses the sky, it is an unmistakable omen. This selfishness, if we may call it so, is characteristic of the insane of this class. They take everything that they see, or hear, or read, to themselves. Especially is the latter the case with the Bible, and the denunciatory passages above all. Under their dictation the right hand is cut off, or the right eye plucked out; and so the danger of self-mutilation is added to that of self-destruction.

Finally this man adds his testimony to that of the other upon the point of the influence of secret societies for his sufferings, for he tells you that the "Grand Order of Accepted Bakers," whatever that august body may be, is punishing him for revealing its pass-word.

MELANCHOLIA OF THE RELIGIOUS TYPE.

CASE III.—The succeeding patient is, as you see, quite grief-stricken, his eyes are full of tears, and he moans very grievously. His reason, as he gives it, is that "everything is going wrong," a formula by which the same question, similarly addressed, is often answered. He tells you that he has lived a bad life, that wicked thoughts keep coming into his mind in spite of himself, that he has committed the unpardonable sin, and that there is no hope for him in this world or the next. He too has the scar upon his throat of a self-inflicted wound, and he blames his wicked and involuntary thoughts for that. His troubles are chiefly about religious matters and the loss of his soul, and he has at times persistently refused food, and necessitated his being fed with the stomach-pump. In his case his only assigned reason for not eating is that "it is no use, no use;" but this refusal of food is common among the insane in whom melancholia is the form assumed, and for a variety of causes. Sometimes it is due to the suicidal intent, sometimes to hallucinations of sight or smell, which lead the patient to believe that blood or excrement has been substituted for his food, or poison added to it. At other times the dwelling of the patient's mind upon scriptural subjects, of which I have spoken, and the desire to imitate our Saviour in the fasting in the wilderness, are accountable for the abstinence. So it is always necessary in the care of cases of melancholia to assure yourself that they eat regularly and sufficiently, or to take measures for their artificial feeding, if they do not.

BODILY SUFFERINGS IMPOSED BY ENEMIES.

CASE IV.—The next patient is of a considerably higher degree of intelligence and education than most of those whom I can present to you. His occupation has been that of a teacher, and he was at one time well known in the city. His insanity was evidently gradually developing long before it compelled him to abandon his work. He has gathered from listening to the other patients the object of his examination, and he parries questions very cleverly, and keeps his delusions skilfully in the background. It is not until reminded of statements that he has made upon former occasions, and told that if he does not reiterate them now, it must be because he has found out that they were incorrect, that he allows himself to be drawn out. Then his delusions come thick and fast, and are upon every conceivable subject, acknowledging only the rule of which I have before spoken—that the person himself is always the active agent in them.

He is the scapegoat for all manner of sins, and has incurred the active enmity of scores of distinguished individuals, and especially of scientific societies. From his early training he naturally seeks to account to himself for this condition of affairs, and he finds the motive in jealousy of his attainments and intellect. So you see mixed with the evidences of fear and despondency in his appearance and speech no

small share of self-satisfaction and pomposity. He tells you that Charles Dickens wrote Bleak House to injure him, because he envied his greater literary power; and he points out, very ingeniously, passages which he claims support his view; and he accounts for his detention here by ascribing it to the jealousy of the Central Park Commission of his superior qualifications as a landscape gardener.

But his chief sufferings have been bodily ones, imposed by his various enemies. He has run the gamut of diseases, and has ills enough now to kill a dozen ordinary men. He refuses to shake hands with me or with you, because several diseases have been conveyed to him in that way. That was how he caught pneumonia, while cancer was communicated to him in soap, and his hydrophobia came from the mixture by his enemies of the saliva of a mad dog in his butter. But perhaps their most nefarious act was the secret hiding of spermatozoa in his rice-pudding, whereby he became impregnated and carried a child in his stomach until the seventh month, when these same enemies gave him an abortant in his tea, and he miscarried at stool.

HYPOCHONDRIACAL ELEMENT.

You see what a strong hypochondriacal element runs through this case. It is to be looked for in all such cases. Indeed, the melancholiac is almost of necessity a hypochondriac. The converse is not necessarily true also, though the tendency of hypochondriasis is to end in melancholia. But as long as the transition has not been made the former may be distinguished by his utter hopelessness of cure of his supposed ailments, while the hypochondriac, though he may not acknowledge his hopefulness, shows it plainly enough by the persistency with which he seeks new remedies and new doctors.

PECULIAR DELUSIONS.

Delusions of the class which in this patient take the form of belief that he has had a child in his stomach, are not very uncommon ones. You will find several patients who will tell you that living animals inhabit different organs in their bodies. In one case it is a weasel in the abdomen, in another a rat in the skull, and in a third a doctor who moves from one cavity to another and makes himself peculiarly unpleasant in all. In such cases a feeling of discomfort or pain gives rise to the delusion, and after death the discovery of tumor of the brain or cancer of the intestines accounts for the gnawing of the rat or the weasel.

Not only do the patients at times imagine that animals of one or another kind inhabit the cavities of their bodies, but occasionally they imagine that they are themselves transformed into animals, and they forthwith adopt the habits and carriage of the particular animal into which they believe themselves to have been changed. Other beliefs as to changes in their bodies, in their constituents or component parts, are also found. One patient whom I present to you imagines, and will tell you, that his body is on fire, is gradually being consumed, and that portions of it are already gone. This is being done in order to assist in lighting the world, and at night he will point to the moon and gravely tell you that it is his head, or to the street-lamps and assure you that each gas jet is one of his finger-tips, and he will raise his hand to show you that his fingers are burning, though, of course, such is not the case. Another, also present, imagines that he is dead, and that his body is unpleasant to his companions by reason of putrefaction. Others, again, think that they have died, or have been killed, but that they are now restored to life; and one thinks that this has happened to him three several times, and will describe to you most minutely the exact circumstances of each murder.

HOMICIDAL MELANCHOLIA.

Case V.—Here is a patient who committed a homicide a short time since, and who has just been sent here by the court for observation. Of the circumstances of the crime I am not informed as yet, and do not therefore know whether the insanity preceded and led to it, or whether it is the result of remorse for the crime. At any rate, there can be no question that he is insane now, and with the most painful characteristics of melancholia. The recollection of his crime seems to torment him constantly, and he is in perpetual fear that his life, too, is about to be taken. He distrusts his fellow-patients and all who come near him, avoids them, or faces them with his back to the wall, and appears to be at all times anticipating a sudden attack. He has refused food, too, though he does not tell us for what particular reason, and it has been necessary to feed him artificially. He shows the usual loss of natural affection and the usual suspicion of near relatives, refusing to see his wife when she visits him, denying that she is his wife, and accusing her of treachery and misconduct toward him. In every way he suffers as much probably as any of the patients before you. It will not, however, be for long, likely, as he is far advanced in phthisis. This is a common sequel or accompaniment of melancholia, and it is the most usual cause of death in such cases. There are two noticeable peculiarities about it when thus associated: first, that it presents almost no rational or physical signs of its presence, and that its existence is often not determined, nor even suspected, until after death; and, second, that there is a marked alternation in the severity of the mental and the physical disturbances, the mind being comparatively clear and rational when the pulmonary disease is at its worst, and becoming clouded and unsettled again as the bodily powers may temporarily improve.

This man is also a murderer; but in his case there was no suspicion of insanity at the time of the commission of the crime, and he was sentenced to state prison for life, becoming insane only after some years of confinement there. His thoughts, like those of the other man, run, as you see, upon the homicide; but he is more aggressive and noisy, clamoring to be let out, and saying at times that people are trying to murder him, and at others that they forced him to commit his crime in spite of himself.

(The wards of the asylum devoted to the reception of patients suffering from melancholia were then visited, and the peculiarities of different cases exhibited and explained by the superintendent and the physicians of the staff. The same general characteristics as observed in the selected cases shown in the lecture-room were here found, with an infinite variety of detail in individuals. Many were evidently beset with hallucinations of hearing, which caused them great distress. The deprecatory answers returned to these imaginary voices showed that threats and denunciations were the staple of their utterances. Many patients spoke of their sufferings, especially at night from electrical influences operating in their rooms; and one affirmed that his enemies had a telephone under his bed, by which they annoyed him much by shouting at him from the city. Dr. Macdonald stated that this had come to be quite a com-

mon delusion in patients becoming insane since the invention of the instrument.

One patient complained that his lungs had been cut out by means of electricity, that people were able to abstract his thoughts from him by means of suction, and then use them to injure him. He had active hallucinations of sight and hearing, and earnestly appealed to the visitors to aid in his escape.

Another, a former practitioner of medicine in the city, but who has now been in the asylum for many years, spoke of himself as the "Emperor of the World," but had his eye covered with a patch of newspaper, and explained that it was necessary in order to prevent his enemies from dropping poison into it.

Still another believed himself filled with tar and grease, consequent upon drinking rum, and inquired anxiously as to his chances of ridding himself of it. He admitted his insanity and expressed anxiety for its cure, but, as a rule, no such admission could be extracted from other patients, all asserting the absolute truth of their delusions, and the impropriety of their detention.)

Original Communications.

A FATAL CASE OF DISEASE ABOUT BOTH HIP-JOINTS,

IN WHICH THERE WAS AN ABSENCE OF THE USUAL SYMPTOMS OF HIP-JOINT DISEASE — RUPTURE OF THE LIGAMENTUM TERES — DISLOCATION OF THE HEAD OF THE FEMUR ON THE RIGHT SIDE.

BY CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

ON January 21, 1879, I saw with Dr. Gibney, Mary P——, aged five years, whose history was as follows: On December 14, 1878, she was found to have a coated tongue, and complained of considerable hyperæsthesia of both lower limbs. On January 11, 1879, her mother reported that she had been walking lame ever since the last date; that on two occasions she had had severe pain at night; had been irritable in disposition, and losing flesh. Her mother now states that the first symptoms began about six weeks ago. She first noticed a favoring of the *right* side in walking, stiffness in the morning, and that the pain was aggravated by using the limb. The pain, when present, was referred to the inner side of the *right knee*, none elsewhere. No injury or exciting cause known; child always delicate, and surroundings poor. During the two weeks previous to her admission into the hospital there was no marked change in her condition. Motion at both hip-joints was free, smooth, and painless. Temperature normal. The child complained of no pain when quiet; stooping always produced it. She stood in a position somewhat resembling genu valgum. On one examination some pain was complained of about the right hip, but on a subsequent examination it appeared to be perfectly healthy.

On examination, nothing wrong could be detected about either hip-joint; motion free and painless in all directions, except that she complained of some pain in the knee when the *left* thigh was strongly flexed. When the left joint was moved patient made no complaint, but when the left ilium was pressed inward she cried out from pain. There was no swelling about the right or left hip-joint; no change in the fold of the nates. The *right* hip-joint seemed perfectly healthy. There was pain on pressing the crest of the ilium on the *left* side inward, referred to the *left* knee, or upon attempting to communicate motion to the sacro-iliac joint on that side. There was tenderness, or at least the patient complained, on pressure being made over the sacro-iliac synchondrosis of the left side, and there appeared to be some dulness on percussion over that joint; none on the right. In walking or standing she favored the *left* limb, but there was nothing characteristic in her attitude. The examination seemed to exclude any trouble about the hip-joints.

Patient was admitted into St. Mary's Free Hospital for Children, January 23d, and on careful examination nothing further could be discovered.

February 10th.—Since her admission she has been kept in bed. She has complained of no pain day or night. Motion at the hip-joints is the same as at time of admission. Complains only when the ilia are pushed inward, and then she refers the pain to her left knee. For the past few days she has complained of pain in the left knee when she is moved. She rests, when sitting up, on her left side.

February 22d.—She complained of some pain on motion in the left thigh, which was a little flexed.

February 24th.—Examined with Dr. Gibney. The adductors of left limb were somewhat contracted, as well as the psoas and iliacus. What motion there was at the left hip-joint was smooth and free; that in the *right* appeared normal. There was pain and tenderness over the left sacro-iliac synchondrosis.

March 10th.—Complains of pain at night. Temperature normal.

April 3d.—For a week or so patient has complained of pain in the *right* knee, and the thigh of that side has become flexed. Both thighs were strongly adducted. Suffers much pain when moved. Temperature has been elevated at night, reaching 102°, but normal, or nearly so, in the morning. Patient etherized, and with Dr. Gibney made a careful examination. The contraction of the adductors was easily overcome without the use of any force; in doing this a slight relaxation was felt in the *right* thigh, as though a weak adhesion had given way, but nothing was thought of it. Both limbs were fully extended with but slight tilting of the pelvis. There was no roughness felt in either joint; no swelling about the hip-joints. On examinanion per rectum no abscess could be discovered; in fact, nothing to account for the pain. After completing the examination it was noticed that the *right* limb was shorter than the left, and on applying slight traction the head of the bone was felt to slip into the acetabulum. No fracture, no crepitus could be detected. It was found that the head of the bone could be easily thrown out of the acetabulum upward and backward. As but slight force had been used, we were at a loss to account for this condition, unless the ligamentum teres had given way and that there was disease of the hip-joint.

Ordered extension to right limb.

April 8th.—Urine was found to be dark, smoky, and albuminous, and on microscopic examination granular casts were found.

April 16th.—There has been nothing special to note, except that patient has gradually failed, and today died comatose.

P.M., twenty hours after death. Dr. Gibney present. On inspection nothing abnormal could be seen;

contour of parts about the hip-joints perfectly symmetrical. An incision was made over the *right* joint and the tissue separated from about the capsule. Everything seemed healthy, but on opening the joint it was found to contain thick pus; the ligamentum teres ruptured and softened, allowing the head of the bone to be dislocated upward and backward. The soft parts being separated, the femur was divided just below the trochanter minor. It was discovered that the floor of the acetabulum was diseased in a space about the size of a five-cent nickel piece around the point of the insertion of the ligamentum teres, and partly necrotic. The cartilage on the head of the femur was of a yellowish color, and at the point of insertion of the ligamentum teres showed more evidence of disease. The capsule on its inner surface was thickened and velvety.

Left hip.—The joint was opened in the same manner as the right. There was no pus in the joint-cavity; ligamentum teres perfectly healthy. The cartilage on the head of the femur was white, glistening, and apparently healthy; the acetabulum showed no evidence of disease. The bone was divided just below the trochanter minor; there was found a carious spot about the size of a split pea, but of irregular shape on the upper surface of the head, at a point just below the line of the epiphyseal cartilage; the articular cartilage at the point was destroyed over a small extent; sacro-iliac synchondrosis perfectly healthy.

Abdominal cavity.—Only its lower portion examined. On laying it open, what appeared to be a partially distended bladder came into view, and on pressing upon it thick and offensive pus came from the vagina. On further dissection there was found to be an abscess behind the bladder and between it and the vagina, with a small opening into the latter. It was found that there was a perforation of the right acetabulum; the symphysis pubis was healthy.

On making a longitudinal section through the head and neck of each of the portions of the femur removed, the following was found:

Right.—The bone seemed perfectly healthy.

Left.—There was a point, mentioned above as carious, where there had been a circumscribed osteitis, or rather, osteomyelitis, extending inward and upward from the carious point to a point just up to the epiphyseal cartilage. There were other similar but smaller points of the same inflammatory process scattered throughout the head. The shaft appeared perfectly healthy.

Remarks.—There was evidently an error in diagnosis in this case, yet I do not see how it could have been obviated. There were certainly none of the symptoms usually met in hip-joint disease, except pain in the knee, until February 22d. Pain in the knee is a not unusual symptom in sacro-iliac disease, and the pain caused by forced flexion was attributed to motion communicated to the supposed point of disease, namely, the joint between the sacrum and ilium. I am unable to account for the pain on pressure over the sacro-iliac joint, or the acute pain complained of when the crest of the ilium was pushed inward, as care was always taken not to apply pressure near the hip-joint. I am positive that there was no tilting of the pelvis, nor any limitation of the motion in the hip-joint, until after February 10th. The occurrence of suppurative coxalgia in the right joint cannot be explained on any traumatic theory, nor do I think the disease in the head of the left femur, central osteitis, is susceptible of explanation except on constitution grounds. Coxalgia would probably have been diagnosed by one who had not watched the case from the beginning; but until the examination, Feb. 22d, I did not think that the joint was affected, and in this opinion Dr. Gibney agreed.

The theory on which the diagnosis of sacro-iliac disease was based was free and painless motion at the hip-joint; pain on pressure over the left sacro-iliac synchondrosis; pain on pressing the left ilium inward. The pain at the knee was explained on the theory that there was an intrapelvic abscess pressing on the anterior crural nerve, and when the right thigh became flexed it was at first considered as a confirmation of the opinion formed of the nature of the disease.

The capsule of the right hip-joint was not distended, but simply contained pus. The partial dislocation of the head of the femur was due to rupture of the ligamentum teres.

It will be noted that in the left femur there was a central osteitis which had involved the external shell of the bone of the head at one point only; that the cartilage was perfectly healthy except over that point, and that the joint was not involved in disease; while in the right joint there was marked disease at the point of insertion of the ligamentum teres into the floor of the acetabulum; that from the condition of the bone at this point it is reasonable to draw the inference that the disease began at this point, and that the joint was involved secondarily, and that it did not originate in the ligamentum teres, and that disease of the pelvis had been of considerable duration.

Looking at the case again, it will be noticed that the disease seemed to be more advanced in the right joint, yet the symptoms of trouble here were much later in showing themselves than on the left side, where the joint itself was not involved in the disease.

A true dislocation of the head of the femur in hip-joint disease we believe to be very rare, and when it does occur the above case explains its cause, at least in those cases in which it happens early in the disease.

I do not think that this case is an example of disease beginning in the ligamentum teres, because the appearance of the floor of the acetabulum denoted a trouble of some duration, while the ligamentum teres was only inflamed, softened, and thrown off, as it were, on account of its attachment to the floor being destroyed by disease. The left side is an example of disease beginning in the head of the bone—central osteitis; and had the patient lived, the joint itself would in all probability have been in time involved secondarily, while that in the right side was a case beginning in the acetabulum, which had gone on until it had involved the joint.

PRIMARY CANCER OF BOTH OVARIES.

Secondary Cancer of Mesenteric and Bronchial Glands and Right Lung.

By C. W. M. BROWN, M.D.,

Elmira, N. Y.

The following case, occurring in the practice of Dr. H. S. Chubbuck, of this city, seems of sufficient interest to place on record:

H. S——, colored, aged thirty-five; married; was born in Canada. Her mother died when she was a child, of unknown disease; otherwise family history is good. Has never been sick before present trouble. Is usually stout and fat. Catamenia appeared at eleven; always regular; flow scanty, with little pain. Married at twenty-one; has had six children—one

still-born, five years ago. Labors all easy, except fourth, when child was very large. Last child four years ago. Labor easy, and she made a good recovery. She has been well since, until May, 1878, when she noticed abdomen to be enlarging, and had abnormal craving, and repugnance to certain kinds of food. Her abdomen continued to enlarge, and she "felt movements." In September, 1878, she came to Dr. Chubbuck, thinking she was pregnant. Her abdomen was considerably enlarged, but no physical examination was made.

From this time until the following February she consulted several other physicians, and persistently made efforts to produce abortion upon herself by means of medicine and instruments. But, in spite of all her efforts, the abdomen continued to enlarge steadily. Catamenia continued regular, flow becoming less each time, and finally ceasing in February, 1879. Appetite remained fair; bowels were constipated, to relieve which she had recourse to the usual domestic remedies.

When next seen by Dr. Chubbuck, in February, 1879, her abdomen was very large—so much distended that she could walk with difficulty, compelling her to keep a recumbent position most of the time. There was some œdema of the feet and legs.

Her condition was practically unchanged during the next month.

March 11, 1879, she was seen by Drs. Chubbuck, T. H. and C. L. Squires, and Brown, in consultation, when the following notes were taken:

Patient of small stature; much emaciated. Countenance anxious. Abdomen greatly distended, ovoid in form; somewhat more prominent in left iliac region. Feet and legs swollen, and pit upon pressure. Skin of abdomen also pits upon pressure.

Upon palpation, five centimetres to the right, and a little above the umbilicus, is the most prominent part of a tumor, which seems to float in fluid. Shape irregular; can be moved in any direction, but could not be grasped because of large amount of fluid in abdominal cavity.

The bulk of the tumor was on the right of the median line. Wave of fluctuation felt in all directions. Circumference of abdomen at umbilicus 106 centimetres. Dulness on percussion all over abdomen, except a small space in left hypochondriac region, which was tympanitic. Pressure or percussion over abdomen caused no pain. Auscultation revealed a friction rub over prominent part of tumor. Examination per vaginam showed cervix uteri crowded under pubes; os patulous; anterior cul-de-sac nearly obliterated by hard mass crowding upon it. Posteriorly could be felt a lobulated mass separating vagina from rectum, which seemed to yield upon firm pressure with a crushing sound. No movement could be communicated to abdominal growth from vagina. Small English catheter was passed 6.3 centimetres upward and forward within uterus. Examination by rectum showed a similar hard lobulated mass encroaching upon calibre of rectum. An examination of urine showed it to have a specific gravity of 1015, an acid reaction, and to contain no albumen, casts, or sediment.

The next day the abdomen was aspirated, and a little more than eight litres of clear straw-colored fluid drawn.

Nothing new was discovered after withdrawal of fluid, except that the mass was large, and extended to both sides of abdomen, and was apparently separated into two lobes with a deep sulcus between them. The fluid presented the ordinary chemical and microscopical characteristics of ascitic fluid.

March 15th, she complained much of difficulty of breathing, which compelled her to sit up to breathe. Given .06 of quinia sulphate in whiskey every four hours. Right side of chest in front forward flat upon percussion throughout. Back not examined. Next day a more thorough examination showed flatness on percussion all over right side of chest. Auscultation gave bronchial respiration all over front, becoming faint and distant at base. Respiration faint in upper half of back, and absent below. Movement causes dyspnœa. Pulse, 120; small and weak. Respiration 25, when quiet.

After consultation, thoracentesis was performed and 1.48 litres of clear fluid drawn, and considerable cough with free expectoration of frothy liquid followed. After this she gained somewhat in strength, although abdomen steadily filled again, and the right side was wholly flat upon percussion by the 29th. From this time all symptoms became aggravated; appetite and strength failed; expression more anxious. Abdomen steadily grew in size, and by April 9th was as full as before. She was again aspirated, and 5.5 litres of straw-colored fluid containing flocculi of fibrin.

After performing the test described by Thomas, filtering and passing a stream of carbonic acid gas through the fluid, a precipitate of paralbumen fell. No metalbumen was obtained. Paralbumen is said to be contained only in ovarian fluid, and not in ascitic fluid.

The patient's condition was improved for a few days. But strength soon began to fail; abdomen rapidly filled up, and she sank and died of exhaustion on the 14th.

Autopsy was performed in afternoon of the same day by Drs. C. L. Squire and Brown in presence of Drs. Chubbuck and T. H. Squire.

Body much emaciated; no rigor mortis; abdomen prominent. Upon opening abdominal cavity, intestines were found distended with gas. Peritoneal cavity estimated to contain 1.9 litres of fluid.

Two masses appeared; the larger, on the right side of the abdomen, was floating upon the intestines, to which it was adherent over small extent. These masses were the ovaries. The left was firmly wedged down in the true pelvis, pushing the uterus upward and to the right. It was the mass felt per vaginam. They were irregularly rounded, lobulated, yellowish in appearance, and solid in consistency. They together weighed four kilogrammes; the larger being about three times as heavy as the smaller. Upon section, the surface was yellowish or yellowish white, with numerous small cysts containing clear straw-colored fluid. The cysts were often traversed by small trabeculæ. A few spots in both, and especially in the larger, were much softer, and contents were found to be semi-liquid. One spot upon surface of larger mass was umbilicated, and such soft conditions were found underneath it upon section.

Uterus somewhat enlarged, and pressed well forward against pubes.

Kidneys somewhat larger than normal, congested; otherwise healthy. Spleen normal. Liver normal in size, but showed some fatty degeneration. Several of the lumbar glands were enlarged. Upon turning back sternum, a growth was found upon cartilage of fourth rib of right side, with hard cartilaginous feel, and yellowish appearance on section. Intercostal spaces of right side bulged out; diaphragm pressed downward on that side. Right pleural cavity estimated to contain 3.8 litres of clear serum, which coagulated upon cooling to a jelly-like mass. Right

lung pressed into upper and back part of pleural cavity. The upper and part of the middle lobe crepitated. The remainder solid, yellowish. Parts of it are very hard, cutting like cartilage; one spot in centre seemed to be breaking down—was soft and friable. Bronchial glands enlarged from size of pea to that of English walnut. Left lung and heart normal. Head not opened.

Microscopical examination of ovaries showed them to be composed of connective tissue infiltrated with small nucleated cells, which were in some parts arranged in collections or nests, the so-called "cancer nests." They are therefore cancerous.

The question of diagnosis in this case was one of great interest. The case had been seen by several medical gentlemen of this city before she came finally into the hands of Dr. Chubbuck, and had by most of them been called one of uterine fibroid. After the consultation held, opinions were divided, a part calling it multiple uterine fibroid, regarding the floating mass as a fibroid attached to the uterus by a pedicle, and the part felt per vaginam, to which motions could be communicated, as a separate subperitoneal fibroid. The others called it cancer of ovary, with possibly a fibroid of the uterus. The rapid growth of the tumor while under observation, with the increasing ascites and progressive failure of general condition, pointed strongly toward a cancerous disease, but the question was only settled by post-mortem examination.

The diagnosis of cancer of the ovary is always difficult. Thomas mentions two cases which he diagnosticated as cancer of the ovary, which proved to be benign growths.

All recent writers agree that primary cancer of the ovaries is very rare.

Wells only found three cases in his first four hundred ovariotomies, and Peaslee, writing in 1874, thinks that with our present knowledge, these were not cases of cancer. Charles Clay only saw six undoubted cases in five thousand diagnosticated cases of female disease. Peaslee only saw two cases in two hundred ovariotomies and autopsies. He agrees with Fehr, that it is the least common of all diseases of the ovary. It usually attacks both ovaries, as in the present case. It does not occur with especial frequency in elderly women, according to Schroeder, but evinces a special predilection for younger subjects, and may even occur before puberty.

Cancer of the ovary occurs in two different forms, according to Schroeder: the first as a diffuse infiltration of the stroma, so that the entire ovary is transformed into a cancerous mass covered with peritoneum and retaining very nearly the form of the ovary; or more rarely it happens that one or more cancerous nodules are found in the otherwise healthy tissue, which grow very large, and thus transform the whole ovary into a nodular tumor. The present case evidently belongs to the more common form. Ovarian cancers are usually small. Peaslee says they rarely become larger than an orange. Yet he quotes Lobert as reporting one which weighed eleven pounds, and J. L. Brown one which weighed nineteen pounds.

The disease always severely irritates the peritoneum, and thus always causes ascites, and sometimes limited acute peritonitis. The ascites seems to have appeared rather late in this case. But that there was an inflamed state of the peritoneum was shown not only by the ascites, but by the adhesions to the intestine and lymph in fluid at the second tapping.

A CASE OF NEARLY FATAL HEMORRHAGE FOLLOWING THE SIMPLE OPERATION OF CANTHOPLASTY.

By D. B. SIMMONS, M.D.,

YOKOHAMA, JAPAN.

K——, a female servant, in the employ of one of the foreign residents, presented herself at the outdoor service of the hospital, with ulcerative keratitis.

As an auxiliary means of treatment I performed the ordinarily trivial operation of canthoplasty. Though there was pretty free bleeding at the time, pressure and cold applications caused it to cease entirely in the course of twenty-five or thirty minutes. The patient then started on her way home.

Before she had gone far, however, the bleeding came on afresh. As she was of the impression that free bleeding would have a beneficial effect on the eye, she took no means to stanch it till she felt herself becoming faint, when she called for help, and her master took the matter in hand.

The operation was performed about 10 A. M., and I was called to see her at 8 o'clock the same evening. I found her condition truly alarming, though the bleeding had ceased a short time before I arrived, and did not return. From the appearance of her clothes, the bedding, including the mattress, and numerous towels which were laying about saturated with blood, there was an easy explanation for her all but moribund state. The pulse at the wrist was imperceptible; lips and face without color; hands and feet cold; and the whole body bathed in a cold perspiration. As this state had lasted for over an hour, no means but transfusion, it appeared at the moment, could save her.

Not having the appliances at hand for performing the operation, I made use of the ordinary means for resuscitation, such as hot bottles, brandy by the mouth, rectum, and hypodermically, to which was added later ether. At the end of an hour's hard work the pulse at the wrist returned, though only for a few moments, following a large potion of stimulants.

Toward morning, however, I left her out of danger, and her recovery was complete. I can only explain this extraordinary loss of blood on the theory that I had divided an anomalously disposed artery, or a hemorrhagic diathesis, though I suspected nothing of the kind immediately before or after the operation.

October 10, 1879.

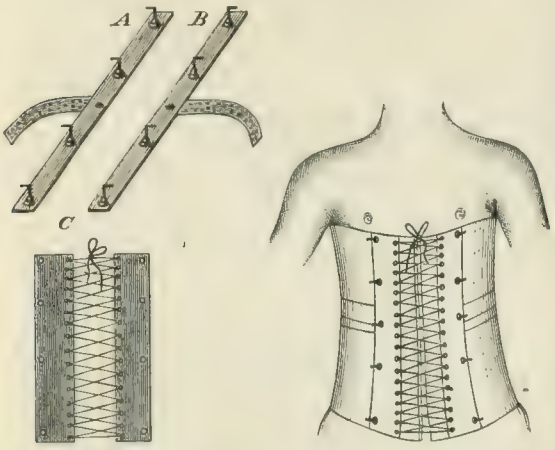
THE PLASTER-OF-PARIS CORSET.

By S. HEMINGWAY, M.D.,

EXAMINING PHYSICIAN TO DEPARTMENT OF CHARITIES AND CORRECTIONS, BELLEVUE HOSPITAL, N. Y.

Among several objections to the use of the plaster-of-Paris jacket are: the difficulty of constructing a jacket that can be applied and removed at will; the fact that if a jacket is once taken off, it is useless, unless it is sent to an instrument-maker to be riveted, etc., at quite an outlay; that the jacket will invariably break in front if cut; the inability to preserve cleanliness without destroying the jacket, and the difficulty, at times, of securing a perfect fit. These objectionable reasons against this valuable auxiliary to the treatment of spinal curvatures, etc., are, I think, fully overcome by the use of the plaster corset. To apply the corset, the patient is suspended in the usual manner. A strip of muslin, sufficiently wide to neat-

ly cover the thorax and abdomen, and long enough to extend a little over one-half the length of the jacket above and below, is neatly pinned over the seamless shirt used in applying the jacket. The muslin is subsequently to be turned over the jacket, thus lining both surfaces. After a layer of plaster bandage and plaster have been applied, the strips *A* and *B* are



laid perpendicularly upon the plaster, on a line about two inches within the inner edge of the axillæ, in front. The jacket is now finished in the usual manner; but before completing it, the muslin above and below is to be firmly and neatly drawn over the jacket, overlapping at the centre, and is held in place by a turn or two of the bandage, thus lining the jacket. The jacket is now divided in the median line in front; and, after making apertures in the muslin for the hooks, the canvas strips (*C*) are hooked on, and the corset is laced up with the ordinary corset-lace.

To prevent crumbling of the cut edges of the plaster, when they are dry. I have found the excellent rubber plaster of Seabury & Johnson will as effectively protect the edges as if riveted on, when the plaster is heated and applied. The strips of iron are made of hoop-iron, and the hooks are the ordinary five-eighth brass hooks. Ordinary canvas or leather strips will answer for lacing the corset. The iron strips should have as many hooks as will allow a space of two and a half inches (the width of an ordinary bandage), between each; and they should also have a perforated zinc or tin strip to retain them in position, and to give them support. The proper length of the strips can be estimated with accuracy by measuring the distance from the axilla to the crest of the ilium, care being taken that the upper and lower hooks shall be respectively at the extreme top and bottom of the strip. The cost of the necessary materials for the corset is about twenty-five cents, and can be made by an ordinary mechanic. Where there is a necessity of removing the corset frequently I have used a double |=|, made of perforated tin strips, placed in the back of the corset. Through the courtesy and with the assistance of Dr. V. Mott, I have applied the corset to several of the patients in his orthopedic class in the out-door department of Bellevue Hospital.

One of these patients, a girl, æt. 10 years, had a sharp, angular curvature in the lower dorsal region. She had had the jacket applied previously, but ulceration on the apex of the curvature was not discovered until pus was found staining the shirt, below the jacket. Although in great pain without the jacket, she could not wear it, owing to this sloughing of the integument over the curvature.

I have applied the corset to her, and by occasionally removing it, no trouble has as yet occurred, and she remains free from pain.

What I claim for the plaster corset is this: It costs almost nothing. It can be immediately applied, without the necessity of taking a cast. The increase of weight in the corset is almost *nil*. If too tight it can be loosened, and *vice versa*. It can be removed and applied at pleasure. It is lined within and without. Cleanliness is not interfered with. The iron strips in front prevent its breaking there, which is the first point to give in the jacket; and, the strips behind, when used, give it additional strength and durability.

145 East Thirty-ninth Street, N. Y.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities of Treatment.

Aneurism at the junction of the transverse with the descending portion of the arch of the aorta.

The following case exhibited certain points of interest relating to symptomatology, etiology, and treatment of aneurisms: A male patient, æt. 41—a fireman—a habitual drinker, had syphilis sixteen years ago (primary sore and secondary manifestations); in August, 1879, while engaged daily in lifting heavy weights, he began to feel shooting pains in the left side and arm, especially towards night, and finally experienced a sensation as though something suddenly gave way. Following this, he suffered considerably from shortness of breath, had a slight cough, and lost flesh rapidly. The symptoms during the month of September, with the exception of the losing of flesh, remained about the same, and on the 8th of October he felt a severe pain in the left side, which was accompanied by great dyspnœa. Speech was normal; there was no vomiting, and the urine was normal. He was admitted to the hospital October 12th. There was nothing specially noticeable relating to general symptoms. On physical examination of his chest it was found that there was little or no expansion of the left side; flatness on percussion in front and behind; absence of respiratory sounds at the upper part of the left side, feeble below, and bronchial breathing behind. Voice sounds were heard over the entire left side of the chest. The bronchial respiration might be explained in two ways: 1. It might arise from the lung by a tumor, or it might be that a tumor was so close to the chest-walls as to transmit the true tracheal and bronchial sounds.

There were no cardiac murmurs. A prominent pulsating swelling existed just below the left clavicle. It was dull on percussion, tender on touch, did not give thrill or fremitus, and no murmur could be heard over it.

The apex of the heart beat against the chest-wall so distinctly that it seemed almost possible to take the organ in the hand. It apparently moved from right to left with each pulsation of the heart, and was in the sixth intercostal space below and to the left of the nipple. From the strength of the cardiac impulses it was thought that the heart was hypertro-

phied; but probably the displacement of the apex was partially due to the pressure of the tumor downward. There was no aneurismal murmur, yet it was said that that fact did not militate against aneurism; for, although in the majority of cases of aneurism a murmur exists, there are cases in which it cannot be heard. On the other hand, no matter how loud and rough a murmur may be present, it alone is not evidence of aneurism.

The radial pulse upon the left side was weaker than upon the right. There was no change in the pupil on the left side.

There was no transmission of the normal cardiac sounds to the tumor—a symptom strongly in favor of aneurism when present. Before admission to the hospital, the patient had been treated for pleurisy.

Rest, nutritious diet, and the internal use of iodide of potassium, were the essential factors of treatment.

ANEURISM—ABSENCE OF PHYSICAL SIGNS—RUPTURE INTO A PRIMARY BRONCHUS.

In connection with the above, a case was mentioned in which the patient, a man in middle period of life, was supposed to be suffering from asthma, simply because he had recurrent attacks of dyspnœa. A careful examination of the chest gave entirely negative results, and the absence of dry râles, so uniformly present in the chest between the paroxysms of asthma, excited the suspicion that the man had an aneurism. A croup-like cough was heard, and the suspicion was increased, but no evidence of aneurism could be found. Some weeks afterward the patient had small hæmoptysis. Careful physical examination was again made, but no marked evidence of aneurism was found. He passed into the hands of a homœopathic practitioner, who diagnosticated dyspepsia, and said the patient must have exercise. Autopsy revealed a small aneurism projecting in such a manner as not to give rise to marked physical signs; but it had ruptured into a primary bronchus, and caused almost instant death. The case was interesting because it illustrated the significance of spasm of the glottis.

CIRCUMSCRIBED PLEURISY—UNSUCCESSFUL ASPIRATION—PERFORATION OF LUNG—GOOD PROSPECT OF RECOVERY.

A male patient, æt. 30, came into the hospital, and on physical examination gave evidence of bronchitis, which was followed by the physical signs of lung consolidation, and subsequently by evidence of liquid in a circumscribed space in the right side, just below the scapula. A hypodermic needle was introduced twice and fœtid pus was drawn out, and yet pus was not obtained by means of an aspirator. Aspiration was not persevered in, and after a short time the man began to spit up fœtid pus freely. The expectoration of this material continued for a few days, then began to subside, and at the date of our visit its fœtid character had disappeared, and the patient's general condition was improving quite rapidly. When dulness on percussion occurred, it was thought to be a case of lobular pneumonia. From the fœtid character of the expectoration, it was inferred that a small patch of gangrene occurred in the lung and gave rise to circumscribed empyema.

ACUTE EMPYEMA—ASPIRATION—PERFORATION OF THE LUNG, WITH EXPECTORATION OF FŒTID PUS—CASE PROGRESSING FAVORABLY.

In connection with the above, mention was made of a case in which the physical signs of liquid in the pleural cavity were developed in a middle-aged man who had been previously in the enjoyment of what he supposed was perfect health. An aspirator-needle was introduced, and between fifty and sixty ounces of fœtid pus were withdrawn. He was aspirated the second time; subsequently perforation of the lung occurred, and the patient expectorated an enormous quantity of fœtid pus. Expectoration of pus continued for some time; but his appetite returned, he regained strength, and finally the expectoration ceased. About four or six weeks afterward he again expectorated a considerable quantity of the same kind of pus, but his general condition was not affected unfavorably, and he was steadily improving.

CHRONIC DIARRHŒA—CHRONIC CATARRHAL INFLAMMATION OF THE LARGE INTESTINE—INDICATIONS IN TREATMENT.

A male patient, æt. 50, a moderate drinker and a tailor by occupation, had, during the last seven years, been subject to diarrhœa. The discharges had been large, fluid, and had occurred as a rule soon after taking meals; this had been the course, especially during the last week. At the time of admission he was not much emaciated; although at one time previous to his admission his diarrhœa was profuse—as many as twenty-four large watery passages occurring daily—and the passages were excited by anything taken into the stomach, even a drink of water. The fact that the discharges were large excluded the lower portion of the large intestine as the seat of the lesion that gave rise to the diarrhœa; but the fact that the discharges were excited by ingestion of food, led to the conclusion that the lesion was situated in the large rather than in the small intestine; for there is a pretty well-marked sympathy between the colon and the stomach, rather than between the stomach and the small intestine. This is so marked in some cases, that as soon as anything is taken into the stomach, there is a desire to have a passage from the bowels; but it is not, as patients usually suppose, because "the food goes directly through them," but because it acts as an irritant upon the rectum, and at once gives rise to the desire to get rid of whatever there is in it. It was believed that the lesion in this case was simple chronic catarrhal inflammation of the mucous membrane of the upper part of the large intestine, and that it had existed during the past seven years.

If, as was supposed, the lesion was situated in the large intestine, and the irritability of the large intestine was kept up by the presence of food in the stomach, the first indication in treatment was *not* to irritate the stomach, and thereby avoid the exciting cause of the discharges. How could that be accomplished? The simplest plan, it was stated, was to put the patient on a milk diet. In many cases, not in all, the milk does not irritate the stomach. A certain portion of casein will be digested, and the remainder will be digested in the small intestine. Again, as the result of experience, it was known that chronic inflammation of the upper part of the large intestine was frequently best treated by rest, and a diet consisting principally of fat in the form of either cream or cod-liver oil. By placing a patient on a milk diet, both indications were fulfilled. Such had been the treatment in this case, and he at once began to improve. The real difficulty, however, it was said, in treating such cases was to change from the milk to some other diet, when a change became desirable or necessary. An ordinary history is that, while they adhere rigidly to a milk diet, it is cured; but as soon as they return to ordinary food the diarrhœa returns.

That was the effect in this case: improvement on milk diet; return of diarrhœa when ordinary food was substituted for it.

How are they to be permanently cured? If complete control can be had of a patient, this can be accomplished in many cases by introducing the ordinary diet very gradually. First, stop the milk entirely, not continuing it with other articles of food. Then very carefully regulate the quantity and quality of the food which the patient is to take. The first article used to the best advantage is meat—beef or mutton—finely cut and taken in small quantities at a time; and to this, perhaps, a small quantity of toast and tea, or an egg, may be added three times a day. After a few days perhaps rice can be added, and so, adding the most easily digested articles, the patient may be gradually changed from one diet to another. If the diarrhœa returns, the patient should at once be put back on a milk diet. The gradual transfer to the ordinary diet is sometimes aided by certain drugs. For a patient of this age the mineral acids and preparations containing strychnia were said to be the best that can be employed, taken with the meals. The following was recommended:

℞. Tr. nucis vom..... gtt. xx.
Acid. nitro-muriatic. dil..... gtt. xx.

Mix; dilute well with water, and take three times a day, with meals.

In this way these cases can be not only temporarily, but permanently cured.

Progress of Medical Science.

Cerebral Thermometry.—Doctors Maragliano and Seppili, of Reggio-Emilia, Italy, have undertaken some interesting investigations into the cerebral temperatures of the insane and the sane, in the latter confirming in the main the observations of M. Paul Broca, of Paris, and Dr. L. C. Gray, of Brooklyn. Their essay was read before the medical congress at Pisa, Sept. 28, 1878. The conclusions in regard to the insane are as follows: 1, it is exceptional to find the average temperature of the head higher than normal in simple lipomania and dementia; 2, the highest temperature is found in furious mania, 98.40°; then, in decreasing ratio, in lipomania agitata, 98.25°; in progressive paralysis, 97.93°; dementia agitata, 97.61°; imbecility and idiocy, 97.41°; simple mania, 97.34°; simple lipomania, 97.10°; simple dementia, 96.85°; 3, in all mental diseases the occipital lobes are of lower temperature than the others; the temperature of the frontal lobes, which equals that of the parietal in dementia agitata, in idiocy and imbecility, is higher in mania, in simple lipomania and simple dementia; whereas in progressive paralysis and in lipomania agitata the temperature of the parietal lobes is higher than that of the frontal; 4, in all the principal groups of mental diseases the averages of the two sides of the head are almost equal, with the exception of congenital forms, in which the various regions of the right side show a higher figure than the left; 5, the results of cerebral thermometry, compared with what we know of the pathological anatomy of the diseases under consideration, tend to show that in progressive paralysis, mania and the different periods of exacerbation which often manifest themselves in forms of mental depression and debility, there exists a hyperæmic condition of the brain; 6, the general temperature of the body of the insane, taken in the axilla and rectum, is higher in lipomania agitata and mania furiosa, and generally goes on decreasing in regular order in progressive paralysis, dementia agitata, simple mania, imbecility and idiocy, dementia tranquilla and simple lipomania. These authors found the cerebral temperature of the sane to be higher than did Broca and Gray, their figures for the individual lobes being on the average 3.54° greater, whilst they found the whole head 3.47° warmer. They explain this disparity by the fact that they did their work in June, July, and August, whilst Broca and Gray performed theirs in the winter and early spring. In fact, the Italian investigators made some observations in December, and found the figures very nearly those of Broca and Gray. Thus, they conclude that the disparity is explained by the difference in the surrounding atmosphere. Prof. Maragliano ascertained that thermometers placed on the skull were accurate indices of the temperature of the contents of the skull. He filled a skull with water at different temperatures, leaving the integument and hair on, and he found that the thermometers placed externally followed faithfully the oscillations of temperature of the water within as denoted by thermometers placed therein. He also found that during sleep induced by chloral there is a constant decrease of temperature. In three cases of cerebral embolism, too, he found the temperature decreased.—*Studii di Termometria cerebrale negli alienati.—Riv. sperimentale di freniatria e medicina legale.*

The Operative Treatment of Genu-Valgum.—Dr. Thomas F. Chavasse has prepared a very clear review of this subject, and the following are the operations as practised at the present day: 1. Osteo-arthrotomy. 2. Osteotomy. 3. Subcutaneous fibrous section. 4. Forcible straightening. The first is known as Ogston's method, and is done by flexing the knee as fully as possible, then inserting a long tenotomy knife flatly, two or three inches above the tip of the internal condyle, pushing it downward, forward, and outward, until the point is felt in the inter-condyloid space. The cutting edge of the tenotome is then turned downward, and the soft tissues are divided to the bone as its withdrawal is effected. Adams's saw is now inserted and directed along the canal which has been formed, and the inner condyle is sawn through from above downward for about three-quarters of its thickness. By forcibly straightening the leg, the fracture of the partly detached condyle is completed, and the limb brought into proper position by the loose condyle slipping upon the sawn surface of the shaft. The after-treatment is simple. Schmitz, of St. Petersburg, and Mr. Reeves, have made modifications of this, though both practically amount to the same. The former makes an open wound, and the latter does what he terms a "subcutaneous extra-articular osteotomy." Reeves uses a chisel. It has been proven, however, that the joint is opened either by the chisel, or by fissure when the limb is straightened. Hence Dr. Chavasse very justly considers this an osteo-arthrotomy.

Macewen, of Glasgow, and Chiene, of Edinburgh, lay claim to the operation by osteotomy, *i. e.*, the removal of a wedge-shaped piece of bone from the femur above the line of epiphyseal union. Macewen takes a point half an inch above the upper border of the patella, while the leg is in a state of extension, makes an incision just in front of the tendon of the adductor magnus, reaching the femur at one cut, the length of the wound being about three-

quarters of an inch, and then divides the shaft of the bone for the inner two-thirds of its thickness by three chisels, the largest of which is used at its commencement: thus a wedge-shaped opening is produced without removal of osseous material. The remaining outer third of the shaft of the femur either snaps or bends when the leg is straightened.

Barwell and other operators divide the tibia in addition to the femur, and occasionally the fibula also.

Langenbeck stands first among those advocating subcutaneous fibrous section. He divides the external lateral ligament. Billroth divided the external ligament and the tendon of the biceps, while Reeves has divided, in addition to the above, the fascia lata.

The Lyons School, and especially M. Delore, recommend *forcible straightening*. It is carried out by placing the subject on the back, and after administering an anæsthetic freely, by main force with the hands and knees of the operator, bringing the leg into the normal position; this, if effectual, is accomplished by a series of cracks. Sometimes the strength of the operator is not sufficient, and Rizzoli's osteoclast is recommended. Macewen and Reeves have failed to produce any effect by this *redressement forcé*. English surgeons regard this as a rough unscientific operation, and one not to be recommended.

Dr. Chavasse gives the arguments *pro* and *con* for the different operations. One Ogston operation has resulted fatally.

The chief objection to osteo-arthrotomy is the involvement of the joint. No operation can be a safe one that involves the articulation. Ogston's, Reeves', and even Chiène's, which professes to be a pure osteotomy, have all been proven to implicate the articulation, and are hence attended with more or less danger.

He sums up by saying that the number of plans that are now advocated is in itself an argument that the correct method is still to be ascertained; and that if the exact pathological causation can be decided upon, there is but little doubt that practical surgery will speedily indicate the precise and proper treatment of the malady in question.—*Birmingham Medical Review*, October, 1879.

A Brief Record of Two Thousand Two Hundred Cases of Midwifery.—The following is a summary of 2,200 consecutive cases of midwifery occurring in the private practice of W. Whalley, M.D., of Bradford, England. There were thirty-nine breech-presentations, of which seventeen infants were still-born. Footling cases occurred seventeen times; ten of these infants were still-born. The arm presented twelve times; five of these infants were still-born. The face presented five times; one infant was still-born. The funis associated with either head or breech-presentation occurred seven times; one infant being still-born. The funis and arm presented in one case, the infant being still-born. The funis and shoulder presented once; the funis, feet, and head once; the funis and foot once; the shoulder once; the foot and head twice; the hand and face once. There were two complete and three partial placental presentations. The placenta was retained or adherent in twenty-seven cases, requiring the introduction of the hand for its removal. Accidental hemorrhage occurred in twelve cases. In three instances the funis was coiled three times around the neck of the child. The long and short forceps were applied in fifty-one instances, in which seven infants were still-born. Craniotomy was resorted to in eleven cases. Podalic version was performed in about twenty-one cases; and the Cæsarian section in one case.

There were twenty-eight cases of twins, of which eleven infants were still-born. In thirteen cases the head presented in both children; in seven cases, in the first child the head presented, and in the second the breech; in four cases the head of the first child and the foot of the second; in one case, the arm of the first child and the head of the second; in another, the breech of the first child and the head of the second; in one case, the head of the first child and the hand of the second; and in another, the hand of the first and the head of the second. In half the number of cases, the second child followed the first at intervals varying from twenty minutes to two hours; in the remainder, the intervals varied from two to six hours. In twelve cases the children were both males; in seven, both females; in five, male and female; and in four, the sexes were not registered.

Rupture of the perineum requiring surgical interference happened in six cases. All were successfully treated with the quilled and interrupted sutures. Spontaneous evolution occurred in three premature cases. Five cases were complicated with convulsions. Deformity of the pelvis was met with in seven cases. Premature labor happened spontaneously twenty-eight times, and was artificially induced five times.

In one patient, seven years had elapsed since her last confinement; in another eight; in two, nine; in one, ten; in one, eleven; in one, twelve; in one, fourteen; and in two, fifteen.

Among the primiparæ, six patients were aged respectively 32, 34, 36, 37, 39, and 45 years.

Of the total number delivered, seven mothers died.

The abnormalities met with in children were the following: Three possessed supernumerary thumbs; in two of these cases the redundant thumb was amputated, and in the third the ligature applied; all did well. One child had webbed fingers; another, hare-lips with cleft palate; the latter was successfully operated upon at the eighth week. One child was born with talipes calcaneus, and was successfully treated by the aid of a boot without division of tendons. There was one case of spina bifida, the tumor being situated in the lumbar region; and, notwithstanding every care was taken to protect it from injury by a properly arranged apparatus, the child only survived a few months, ultimately dying from convulsions. There were twelve or fourteen cases of nævi. Two were cured by vaccination, one with nitric acid; but the ligature was found most successful. One child had malformation of both ears; each pinna or external ear consisted merely of a small flap of loose skin, and there was complete absence of the meatus auditorius externus; the child did not survive many days. In another child there was an absence of a portion of the abdominal parietes in the umbilical region, the deficiency being supplied by a purple-colored membranous structure; the child died before the funis separated. Lastly, there was one acephalous child.

Dr. Whalley has employed the forceps much more frequently of late years than formerly, because patients have learned to appreciate their utility. The long instrument with the pelvic curve was invariably used and found to answer every purpose, whether the head was engaged at the brim of the pelvis, or in the cavity, or at the outlet.—*The British Medical Journal*, September 30, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 22, 1879.

CONCERNING THE LAW AGAINST QUACKERY.

In the recent report of the Board of Censors of the Medical Society of the County of New York, there are some matters, bearing upon the prosecution of illegal and unqualified practitioners, which are of general interest.

It may be necessary to premise by saying that this State, in common with many others, has a law against quackery. That it is an imperfect one is no surprise to such as have watched the history of medical legislation, and are acquainted with the difficulties attending it.

There are so many influences at work to defeat the best purposes of the framers of such bills, that it is impossible to do anything more than make a show of reform.

There has never yet been a law for the prevention of quackery which has not been inoperative in its most important features. The present law of 1874 is no exception to this rule, as proven by those who have had the opportunities for testing its provisions. So far has it failed of its desired effect, that, in the language of the report, "it might with more propriety have been styled an act for the promotion and protection of quackery."

When the act to which we refer went into force, the Censors, with a zeal worthy of the cause, proceeded to discharge their legal duties by summoning before them for examination all unqualified practitioners, and those practising without a diploma. Such as appeared for examination were, if qualified, granted "certificates of qualification." But it was found that these certificates were not to be considered licenses to practice unless authorized by the Society through its president.

The very fact, however, that any chartered medical societies in this or any other State are authorized to give such licenses, is in itself liable to such abuse that the Censors recommend its abolition. The report very suggestively says: "As any five physicians may, under the general statutes of the State, associate themselves for medical purposes, and become an incorporated or chartered society, it will be readily perceived that the opportunities for the abuse of the licensing privilege are at present very great, and in the near future may even become still greater. In the whole of Great Britain there are, we believe, only about twenty licensing bodies, while in this State alone there are probably between one hundred and one hundred and fifty. In this county there are at least twelve bodies that habitually exercise this power. Under these circumstances, the Censors believe that it would be better if this and all of the other medical societies in this State were deprived of the power to issue licenses. It would, at all events, tend to diminish the number of avenues by which unqualified persons acquire by law the right which should alone pertain to those who are properly qualified by education."

In regard to the question of bogus diplomas there have been found many obstacles to encounter. There does not seem to be a doubt, if the holder of such a diploma were prosecuted, the court would decide that such a document had been illegally obtained, and would inflict the requisite penalties. The difficulty would be in obtaining the requisite evidence, and even then but one offender against the law could be reached. Little would in reality be accomplished so long as the "diploma mills" were left undisturbed. In the opinion of the Censors, the only effectual way of destroying the abominable traffic would be by appealing to the courts to annul the charter of the offending institution. Then again, the case being brought, as it necessarily would be, in a civil court, the defendant would naturally resist, and the expenses of the prosecution would be greater than the Society would have a right to expect any single one of its members should bear.

After stating the impediments in the way of enforcing the provisions of the act, the report offers a suggestion as to how illegal practitioners may be prosecuted. It goes on to state that the offence being a misdemeanor, it is the duty of the District Attorney to prosecute on the complaint of any citizen or corporation that can furnish him with evidence sufficient in his judgment to insure conviction. In other words, the complaint may be made by any member, in his own name, or the Society can, by a general resolution, direct the officers, as its representatives, to make the complaint in the corporate name of the Society.

After all, the burden of collecting evidence is upon the profession, and the proviso that such evidence shall be sufficient in the judgment of the District Attorney to insure conviction, is, considering the loop-holes in the present law, no easy matter.

THE VENTILATION OF CHURCHES.

Dr. O'Sullivan, in an address on State Medicine, delivered at a recent meeting of the Medico-Legal Society, calls attention to the very important subject of defective ventilation in Catholic churches. He says very truly that in such places of worship, which are crowded many hours in the day, the air is foul in the extreme, and saturated with the germs of disease. No sooner is one audience dismissed than another enters, the only means of changing the atmosphere in the meantime being through the open doors. The latter are generally blocked by an incoming and outgoing crowd, so that, practically speaking, there is no ventilation whatever. Add to the dangers of breathing over and over again this bad atmosphere, the chances of propagating disease by the unrestrained admittance of nurses of the sick and convalescents from contagious disease, we have a state of affairs which deserves the gravest consideration. Dr. O'Sullivan very properly urges the clergy to adopt necessary measures for ventilation between services, and also suggests that nurses during their attendance on the sick should absent themselves from mass.

NEW MEDICAL COLLEGES.

It requires very close watching to keep track of all the new medical colleges that are springing up. We have now to announce a fifth medical college for the State of Indiana. This last educational acquisition is located, to speak more definitely, at Indianapolis, making the second medical college in that city.

Although not so stated in the announcement, the college is, it is said, the offspring of personal ambition, and private quarrels chiefly. The *American Practitioner*, in commenting on this new organization, refers very pertinently to the vastly greater need of medical legislation than of medical education, so called. Some laws are needed to prune out a little of the wretched stuff that is demoralizing the medical profession now—laws that will prevent a few men, actuated by selfish ambitions, from pouring thousands of raw and ill-conditioned young men every year into communities that do not need them, and into a profession that they only help to belittle. There is no need of more medical colleges; there is need that there be fewer young graduates, and that the power of conferring licenses be taken from the existing schools and given to the State. This is the general feeling of the profession. Nevertheless, there can be recorded five new medical colleges—and there may be more—that have been announced in the United States this fall. We must conclude that, if a doctor has a chance to stand up and talk before a few gaping students and get "Professor" attached to his name, he will not care what the voice of the profession is. This state of affairs will last, however, until medical men do something besides grumbling; until they are roused to take the matter into their own hands and demand laws which will protect themselves in the pursuit of their occupation, and in their desire to acquire, honestly, support and reputation.

RESULTS OF SANITARY EFFORTS IN NEW YORK CITY.

The report of the city health board shows that the most gratifying results have attended the efforts to improve the condition of the city's sick children during the past summer months. The means adopted have been sea-side homes, excursions to country towns, barge excursions, and regular medical visits to the tenement-house population. Everything, except the last, has been under the direction of private charitable organizations.

It is shown that, whereas in 1875 the deaths from diarrhœal diseases, mainly amongst children, were 2,997, and in 1876, 3,060; in 1877, the year in which sanitary measures were more actively enforced, there were only 2,657; in 1878, about 2,057; and in 1879, about 2,084. There has thus been a reduction in this particular death-rate, of nearly a thousand. This means a reduction also of about 25,000 cases of sickness.

The general mortality of the city, however, has not been proportionately diminished; and private charity has done quite as much as public in securing this special result.

Reviews and Notices of Books.

Seeing and Thinking. By the late William Kingdon Clifford, F.R.S. London: Macmillan & Co., 1879. 8vo, pp 156.

This is the eleventh volume of the "Nature Series" of popular scientific works. It consists of four lectures delivered by the author before general audiences. Professor Clifford states that his subject is a sort of "Clapham Junction" of all sciences, and the contents of the book justify the statement. Physics, astronomy, physiology, and psychology are all introduced. We have no space to discuss the book at length; it is, however, an admirable one, and we doubt whether so intricate a subject was ever more simply and clearly exposed. Excellent diagrams and illustrations accompany the text.

A Treatise on Vocal Physiology and Hygiene, with especial Reference to the Cultivation and Preservation of the Voice. By Gordon Holmes, L.R.C.P., Edinburgh. London: J. & A. Churchill, New Burlington Street, 1879. 8vo, pp 266

The author of this book states that his aim in writing it has been to furnish singers and speakers with a concise and complete account of the scientific relations of the voice, physical and medical. A remarkably broad field has certainly been gone over in the compass of his three hundred and seventy pages. The author begins with the origin of language, and from this trips lightly through ages prehistoric, classical and mediæval, bringing us in one chapter to

the subject of modern acoustics. This necessarily involves much conciseness, and it may be questioned whether such a historical review is of much value. Under the head of Sound and Voice, the elementary principles of sound are given in a very satisfactory manner. The larynx is considered, as is usual, to be a reed instrument, and its anatomy and physiology are described. A chapter on the physiological principles of vocal culture, and one upon the hygiene of the voice, complete the work. To the physician this book will furnish some interesting physiological points on the subject of the production of the voice in its different registers. The descriptions are much more clear and satisfactory than in ordinary books of physiology. The subject of stammering is also very well discussed. The practical part of the remainder of the work will only have novelty for the laity, for whom it is intended.

EYESIGHT, AND HOW TO CARE FOR IT. By GEO. C. HARLAN, M.D., Surgeon to Wills's Eye Hospital, etc. Health Primer Series, No. 4. Philadelphia: Lindsay & Blakiston. 12mo, pp. 139.

WE may fairly rank this little work as one of the best of the Health Primer Series. It is written in a popular, untechnical style, and conveys much desirable information to the general reader. The chapter on the "Practical Suggestions for the Care of the Eyes" is especially worthy of commendation, characterized as it is by the practical good sense with which it abounds. We heartily commend the enterprise of the publishers in providing for the growing demand for works of this class.

APPLICATION DES SCIENCES À LA MÉDECINE. Par le DR. EDOUARD FOURNIÉ. Paris, 1878.

WE have read this stout octavo volume with much interest. It is more valuable than the title at first suggests. By "la médecine" the author means therapeutics, and the sciences of which he especially traces the application are anatomy and physiology, physics, chemistry, botany, and zoölogy. As the method is historical, and the author aims to cover the whole ground, the work becomes a succinct history of the development of medical science from Hippocrates to last year. Dr. Fournié is so well informed, and so skilful a writer, that he has made a book alike interesting and instructive, particularly in two directions. In the first place, we suppose very few physicians have a clear conception of the steps by which the earliest empirical treatment of disease has developed through twenty-three centuries into the complex science of to-day. This volume gives a clear and sufficiently detailed history of that advance, with a very well-proportioned emphasis on the more important epochs. Whoever the reader may be, we venture to say he will be astonished at the antiquity of some things which he supposed modern, and at the recent introduction of some of his most familiar ideas. The second great utility of the volume is, that it offers a compendious view of all the established resources of the healing art. Medicine is necessarily so much divided into specialties of study and of practice, that no man can have personal familiarity with all the means of exploration, registration, and treatment which so rapidly come into use. It is therefore urgently necessary that from time to time some competent eye survey the whole field and give the profession a full report of what is doing in all departments. Dr. Fournié has done this in a most satisfactory manner, with just enough of fulness and of brevity. The illustrations are numerous and good.

If a critic were necessarily a fault-finder, we might say something of the author's rather *ex cathedrâ* tone when he passes judgment, of the excellent reasons he generally finds for considering the contributions of Germany either unimportant or not original, and the complacency with which he settles several discussions of contested points by quoting from his own previous works. But these things are occasional, and lie so much aside from the real business of the book, that they rather serve to flavor the dryness of the narrative than to impair its very great value.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 8, 1879.

DR. JOSEPH W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

REMARKABLE PUNCTATE FRACTURE OF SKULL.

DR. R. E. VAN GIESEN, of Brooklyn, N. Y., presented a patient who had sustained a remarkable punctate fracture of the skull, and gave the following history:

Robert S., æt. 45, stout muscular man of good habits, ship-carpenter by trade, fell, June 21, 1879, from a ladder, striking the left side of the head against a galvanized spike four and three-eighths inches long by five-sixteenths of an inch in diameter, which projected from an inch plank three and three-eighth inches. The spike penetrated the whole of its free length flush up to the side of the skull, entering at a point directly opposite the incisura intertragica, half an inch below level of the external canthus, and five-eighths of an inch posterior to external canthus, near the junction of zygomatic process of temporal with the malar bone. The latter was dislocated downward and forward, and was freely movable. The sight of the left eye was lost immediately upon reception of the injury—at least there was no vision upon examination some fifteen minutes after the accident. A probe passed carefully into the wound, after slight hemorrhage was controlled with lumps of ice, passed three inches in nearly a horizontal line; and the little finger one and three-fourth inches, where spicula of bone could be felt; and, slowly withdrawing the same, the malar could be moved by pressing forward and downward. It is probable that the spike, in its onward progress, entered the sphenomaxillary fossa, wounding the optic nerve, and perhaps piercing the antrum of Highmore, though repeated probing at the time of the injury and many times since has failed to enter that cavity. There was no bleeding from the ear or mouth, and but slight bleeding from the nose.

It seemed hardly possible that a wound with such an instrument, penetrating to such a depth in the direction described, could fail of seriously endangering the brain; and the progress of the case was awaited with the utmost anxiety. Cold-water dressings were applied, and a brisk purgative of compound jalap powder.

22d.—There is great chemosis of the left eye; swelling and infiltration of surrounding tissues considerable; free scarifications of conjunctiva; wound gently syringed with a two per cent. solution of carbolic acid in tepid water.

June 30th, ninth day from accident, patient has not

had a single untoward symptom. He has been kept on low diet, and saline cathartics given every second day. Swelling is still very great, and discharge of pus very profuse. A few very small spicula of bone have been discharged.

July 10th.—On syringing, water comes freely through the nose; left side, there is fluctuation near angle of lower jaw.

July 12th.—Counter-opening made at that point; free discharge of pus; water and air can be made to come through nose and the counter-opening.

July 25th.—Fluctuation half an inch under left eye; opening made; all openings communicate with each other, as air can be made to issue from them by holding nose and forcibly blowing.

July 27th.—Discharge of pus from all openings slight. Keep all open by tents, and syringe three times daily as before.

August 5th. Suppuration almost none; allowed counter-openings to heal; keep main wound open. Patient at work, feeling well.

October 8th.—Original wound nearly closed; probe enters about one and a half inches; water still runs from left nostril on syringing.

The patient was kindly examined by Dr. D. B. St. John Roosa, who reports condition of left eye as follows: Iris healthy, lens and vitreous clear. Fundus: arteries thread-like, veins smaller than normal; the whole constituting white atrophy of the disk.

The right eye is normal.

The condition of malar bone at time of presentation was slightly below level of its fellow, and firmly united.

CANCER OF THE LUNG.

Dr. Van Giesen also exhibited portions of the lung and liver of a young man with the following history:

July 1, 1879.—Called to see Geo. S. J., æt. 30. Good family history, free from tubercular or cancerous taint.

His general appearance is that of fair health. Some months ago was confined to his bed with a severe illness, diagnosed by the attending physician as pleurisy and organic disease of the heart. He recovered partially, and has been at work as a clerk until within the past few weeks, but has never felt entirely well. He now complains of severe pain on the left side anteriorly, shooting through to the shoulder-blade, increased at night; and a dry, hacking cough in the morning, entirely devoid of expectoration; the face is usually bluish and swollen or puffed in the morning. There are bluish spots on the left side of chest anteriorly. The left arm is slightly œdematous and painful. The temperature is normal as well as the pulse.

July 2d.—Urine carefully examined, and found normal. The patient came to office, and the chest was carefully examined. The left infra-clavicular region is very dull on percussion. Same region posteriorly much clearer, but less than normal. Left side measures nearly an inch and a half more than the right. There is slight impulse on infra-clavicular left side.

Apex of right lung presents decided dulness, but much less marked than on the left side; change in position of the patient does not affect the area of dulness.

The radial arteries beat with about the same impulse. There is no decided enlargement of glands of neck or axilla; appetite good; no sweating at night. The treatment was directed to the allaying of the pain.

July 5th.—Dr. E. G. Janeway saw the case in consultation, and, after a very careful and prolonged examination, pronounced it one of malignant growth of the lung, perhaps an aneurism. At this time the chest was punctured in two places with a hypodermic needle without obtaining any fluid. The impulse under the clavicle was barely perceptible, and a simple device was resorted to to render it apparent. A moderate-sized potato was cut in two; on the convex surface was stuck a long darning-needle, on the remaining extremity was fastened a small strip of paper standing at right angles to the needle. This was placed over the suspected pulsation, and the paper brought in a line parallel with the window-sash; by sighting across the paper to the window the pulsations could be readily seen and measured.

July 7th.—Saw patient again and ordered infus. digitalis, and as he was desirous of a change, recommended him to go to his father's residence at Bay Shore, Long Island. He here passed into the hands of Dr. Vandewater of that place, and I did not see him again until Aug. 30th, when I found the area of dulness very much increased over both lungs. Œdema of both right and left arm; more decided impulse infra-clavicular; increase of dulness over right apex. Nearly whole of left lung impervious to air.

The left pupil is dilated and the eyeball protruding.

Sept. 11th.—After several severe attacks of dyspnœa the patient became quiet, and died without pain or suffering at 3 P.M. Dr. Vandewater informed me that the protrusion of the eyeball became very prominent a few days before death, and that blueness of the face and upper extremities was almost constant.

Sept. 14th.—Post-mortem examination, which was kindly made by Dr. Wm. H. Porter. The body is well nourished. On proceeding to open the chest the initial incision was immediately followed by a slight flow of thick, milky juice, and there was found a hard, milkish white deposit, near the sterno-clavicular articulation, gluing the muscles to the chest-wall in that region. The bones at this point were very much softened, and broke down easily under pressure between the thumb and finger.

After freeing the lower portion of the costal cartilages, and endeavoring to raise the sternum in the usual manner, we found it adherent for about two-thirds of its length to a new growth, firm and hard in consistence; tracing this latter with the hand, it was found to involve nearly the whole of the left lung, strongly adherent to the chest-walls, and to the pericardium and the lower portion of the thoracic cavity; left side contained about ten ounces of liquid of a deep beer color, and numerous flakes of fibrin of the same color.

After loosening the growth, an incision fully an inch and three-quarters deep was made through the tumor over the heart, before the pericardium was penetrated. The heart was found small and contracted, covered with villous exudation, and the pericardium lined with the same material.

The pericardium contained a small amount of liquid, and was not anywhere adherent to the heart. The pericarditis is evidently of a remote date. The left lung was now entirely removed. There was found but little healthy pulmonary tissue not invaded by the cancerous growth.

Right lung presented the same appearance in a much less degree, the apex being the part chiefly affected. Right pleural cavity contained some twelve ounces of fluid. No adhesions except at the point of cancerous deposit. Liver shows a few nodules of secondary deposit.

Kidneys hyperæmic. Head not examined; the protrusion of eyeball probably due to deposit in cell-tissue of orbit. The physical signs are entirely explained by the pathological appearances; the impulse by nearly two inches of dense solid matter lying directly over the heart. The effusion comparatively small in amount, was probably present when the hypodermic punctures were made, but the level of the fluid was below the point of insertion of the needle.

In conclusion, the doctor wished to refer the specimen to the microscopical committee, which was done accordingly.

Dr. Lange remarked that in a part of Saxony there had been almost an epidemic of cancer of the lung, more than a dozen persons being attacked.

BONY TUMOR OF COCCYX.

Dr. Post exhibited a bony and pigmentary mass which had been removed by operation from an unmarried lady, twenty-five years of age, who had bruised the lower part of her spine by a fall two years previously. A small abscess formed, which after a time became apparently healed, but discharged matter at each menstrual period. When Dr. Post saw her there was a bony prominence over the coccyx. This prominence was excised and the sinus laid open, after which the wound healed.

LUPUS OF FACE REMOVED BY EXCISION—TRACHEOTOMY WITHOUT THE TUBE.

Dr. Post also presented a drawing of an enormous lupus of the face, upon which he had performed an operation of excision. The patient was a German woman, sixty-one years of age, who was an inmate of the Presbyterian Hospital. She had the disease in the region of the nose for several years. At the time she entered the hospital the whole nasal pyramid had been swept away, and the ulceration had involved the integument at the root of the nose and between the eyes, upon the forehead, and four-fifths of the upper portion of the upper lip. As a precautionary measure against the escape of blood into the trachea, Dr. Post performed tracheotomy without a tube, after the manner proposed by Dr. H. A. Martin, of Boston (Amer. Med. Association Trans., 1878). The patient was fat, had a thick neck, and the subcutaneous vessels were large and numerous. Dr. Post stated in passing that the method of Martin maintained a wider opening than when the tube was used; that there was no irritation from the presence of the foreign body; and lastly, that there was no obstruction from the presence of mucus. From his experience in this case he was led to believe that wearing the tracheal tube after tracheotomy, will be placed in the same category as that of wearing the catheter after urethrotomy. He remembered one case in that connection which had its bearing on the question of wearing the tube after tracheotomy. Many years ago he performed tracheotomy for the temporary relief of malignant disease of the throat. The tube had been worn for a considerable period, and on its removal there was a well-marked ulceration caused by pressure.

To return to the patient with lupus, Dr. Post stated that as soon as he had opened the trachea he crowded a large piece of sponge into the mouth, cutting off all communication with the trachea. It was his intention to use Pacquelin's thermo-cautery, but unfortunately the india-rubber bag burst and he was compelled to use the knife. He began by making an incision below the margin of the diseased growth, thence on either side of the cheek to the inner canthi. The diseased portions on the latter situation were removed by the scissors. After completing the operation, which was a tedious and bloody one, the wound was dressed with shreds of lint and collodion. A little incident occurred a day or two after the operation which was worthy of note. The patient was rather suddenly attacked with emphysema, due to the entrance of air into the subcutaneous cellular tissue of the neck. This was promptly arrested by reopening the wound over the trachea. He stated that should the present operation be successful it was his intention of constructing a new nose from some other part of the body, taking the ring finger for a skeleton basis.

INTRA-MURAL FIBROID OF UTERUS.

He also exhibited a third specimen. This consisted of an intra-mural fibroid of the uterus, weighing twenty-two ounces, removed by operation from a maiden lady, who was sent to him from Delaware County by Dr. McNaughton. About six months since, the patient suffered from retention of urine; and the family physician, examining for the cause of the trouble, discovered a fibroid tumor projecting into the vagina. When Dr. Post saw her, the tumor extended to the vulva and was found to be attached to the posterior wall of the uterus, the posterior lip of the organ being lost in the growth. There was very little hemorrhage present at any time. The uterine probe passed up a distance of four inches beyond the anterior lip of the cervix uteri. She was placed upon ergot for some time with a view of bringing down the growth. She progressed very satisfactorily until a few days before the operation, when she began to droop and show some signs of blood-poisoning. On examination, the tumor was found of a livid complexion, and giving rise to a fetid discharge. It was quite evident decomposition was going on, and that there was a necessity for immediate operation. At the time of the operation the lower extremity of the tumor extended through the labia, filled up the vagina, and was about seven inches in length. The mass which protruded was excised first, and then the stump was drawn down, different portions being excised as they were brought into view, until, finally, the vaginal portion was excised. Then grasping the stump, he endeavored to detach it with the finger and then made use of Thomas's serrated spoon, and succeeded finally in removing the whole mass. No unpleasant symptom followed the operation, and the patient made a rapid recovery.

INTESTINAL CALCULUS—INVAGINATION OF THE BOWEL—STERCORACEOUS VOMITING—RECOVERY.

Dr. C. A. Leale presented an intestinal calculus discharged by a lady 79 years old. It had its origin as a biliary calculus which was passed from the gall-bladder, became lodged at the ileo-cæcum, where from 3½ inches in circumference, it was increased to 4¼ inches by concentric layers of stercoraceous matter, and where from inability to be passed it produced an invagination of the bowel, until the presenting portion could be felt within four inches of the anus; digital dilatation gave it an exit from the small into the large intestine, from whence it was removed by bimanual vagino-rectal manipulation, forty-five days after entering the intestinal canal. The patient being relieved by stercoraceous vomiting every three or four days, as during the entire time only one movement of the bowels occurred by rectum, the return of the invaginated portion by in

jections of carbonic acid water was soon followed by entire freedom from pain, and recovery.

He gave the detailed history of the case as follows:

Mrs. Q——, æt. 79 years, for over thirty years resided in a miasmatic region of Pennsylvania; has had malarial fevers, and for more than the past twenty years has two or three times a year suffered severely from attacks of bilious colic. She has been under my observation for the past seven years, and during that time has, about once every four months, had a violent attack of either bilious or intestinal colic, to be followed by persistent jaundice, which appropriate treatment (generally small doses of podophyllin) would relieve. About the 20th August, while in the country, Mrs. Q—— had the most violent attack that she ever experienced, and described her pain as though a portion of her liver had been torn off. The pain lasted nearly an entire day, to be followed by *dysentery*, great tenesmus, and tormina, lasting for the next six weeks. September 1st, Mrs. Q—— returned to the city, and in a few days was seen by me. She was then jaundiced, and had complete *obstruction* of the bowels, violent tenesmus, and occasional discharge of about half a drachm of bloody mucus without a trace of fæcal matter.

On the 10th of September the accumulation within the intestines caused great distress and violent peristaltic action of the bowels, to control which opium was given in one-grain doses, hoping thereby that at the same time it would produce its opposite effect and relieve constipation. Clysters of warm water had frequently been resorted to, and to relieve tenesmus laudanum added. All efforts to overcome the obstruction by means of the long elastic rectal tube failed, it being impossible to pass it up to the sigmoid flexure. On September 1st the pain could be localized at the ileo-cæcal valve, and it gradually changed along the course of the ascending transverse and descending colon until September 15th, when it was located at the sigmoid flexure. As had occasionally been done, a mild solution of the sulphate of magnesia was given, to, if possible, liquefy the fæces and pass the obstruction; but this only increased the peristaltic action, to be followed by distressing nausea and vomiting of the fæcal contents of the small intestines. The vomiting of fæcal matter was repeated every three or four days, each attack being followed by almost fatal prostration. This condition continued until September 25th, when a manual exploration of the rectum was again made, after again failing to pass the bougie—at this time the pain was localized at the upper part of the rectum. The patient was placed in the position à la vache, and the end of the finger could distinctly feel the presenting *invaginated portion of the bowel*, where the cause of the failure to pass the bougie was made apparent, as the portion presented as a bulging, elongated patulous os, through which even a small No. 8 silver catheter failed to pass, but by bimanual examination, one hand in rectum and one on abdomen, the finger was made to pass through the soft, velvety congested presenting part, and dilatation gradually accomplished, when fæces followed the withdrawal of the finger, and fully two quarts of pasty fæces were voided; the first and only passage from the small intestines for thirty-six days. In a few hours the obstruction again was apparent, and fæcal vomiting recurred at intervals of two or three days.

At no time did the temperature go above 101½° F., and the symptoms of exhaustion gradually became more alarming. The constant desire to have a passage, and the violent tenesmus being relieved by opium, either by mouth or rectum, in small doses, as one grain at times, produced six or eight hours of sleep. Sept. 26th.—She was much very exhausted and only kept alive on frequently repeated draughts of champagne. Sept. 28th.—Violent fæcal vomiting and almost fatal prostration; to facilitate the cleansing of the stomach, warm water was plentifully given until a thorough washing of the stomach had been accomplished.

During the entire time Mrs. Q—— was given articles of diet most rapidly to be assimilated, and which would form as little effete matter as possible, and the anti-peristaltic action of the bowels encouraged as often as the strength of the patient would justify, by means of saline cathartics, to be followed by copious draughts of warm water to relieve the stomach of its intensely offensive contents. Each time that the stercoraceous matter passed up into the stomach, the extreme disgust, fæcal eructations of gas, and sense of weight gave a desire to vomit; and, although the patient dreaded to vomit, she eagerly drank the warm water to facilitate throwing off the offensive contents of the stomach.

October 1st.—She was seen in consultation by Dr. Austin Flint. No change occurred; the same treatment continued to relieve bowels by stomach and vomiting, and the occasional saline cathartic to soften the contents of the bowels, and opium p. r. n.

At 9½ A.M., October 6th, I received a telegram stating that a sudden change had occurred, and that Mrs. Q—— was dying. I was soon at her bedside, and found that she had had a convulsion and intense pain at the sigmoid flexure of the colon. She was then so much exhausted that her pulse for some time was imperceptible; but, by the frequent administration of champagne, she rallied sufficiently on the following day to admit of another rectal exploration, when this hardened mass was felt just protruding through the strictured presenting part. By bimanual, rectal, and vaginal manipulation, it was easily removed, after breaking in two pieces, and the cause of the convulsion was by reflex irritation as it passed through the strictured portion. It is composed of a hardened, dark brown, circular, homogeneous mass, four and one-fourth inches in circumference, and two and one-half inches long, weighing one hundred and seventy grains, having a very strong fæcal odor, and enclosing a circular nucleus three and one-half inches in circumference, which was passed from the gall-bladder, the formation around the original nucleus being in concentric layers of stercoraceous matter, each about half a line in thickness, and which, August 20th, became lodged at the ileo-cæcal valve, protruding that portion through the large intestines until the invaginated portion reached within five inches of the anus, when digital dilatation completed its exit from the small intestines, and from which portion of the rectum it was removed by bimanual vagino-rectal manipulation, since which time the aged patient has been free from pain, and a copious injection of carbonic acid water has returned the bowel, and placed her in a condition for a rapid recovery.

DR. P. C. COLE examined the specimen microscopically, and found it to consist of cholesterine, with a large mass of granular matter colored with biliverdin, the whole mass arranged in concentric layers, and very fragile.

In conclusion, Dr. Leale made the following remarks: In man, the unusual occurrence of intestinal calculi may be concluded when we search in vain for a single illustration in the last medical volume, part ii., of the History of the War, which several of us have

just received, and contains a record of 1,739,135 cases of diarrhœa and dysentery, with 44,558 deaths, besides quotations from all the attainable authorities, making probably the most exhaustive work (a quarto of over 850 folios) ever published; and yet, not a single instance is cited where the cause of the invagination and dysentery is due to the presence of an intestinal calculus, and when, as shown in the history now recorded, these conditions can exist as a provoking cause for both these serious irritations of the intestinal canal, and causing both invagination and weeks of dysenteric discharge below the seat of the obstruction.

Intestinal calculi are not uncommon in the horse, and are a frequent cause of colic and irritation of the bowels. According to Youatt, they are generally found in the cæcum or colon, varying in size from a few grains to several pounds, and shaped in accordance with the nucleus around which they increase; and, in regard to their treatment, Prof. Morton, R.V.C., in his essay on "Calculous Concretions," states that little can be done to procure their expulsion, or even to determine their existence; and that, although some may be expelled, others become so firmly impacted as to resist all medicinal means of withdrawal, and a few have broken their way through the parietes of the rectum, and lodged in the abdominal cavity.

According to Mr. Percival, in his "Elementary Lectures on the Veterinary Art," these calculi may be the cause of fearful destruction of the contiguous soft parts, and consequently of the most intense pain.

A GUMMY TUMOR OF THE PONS AND CRUS, WITH DISSEMINATED, CORTICAL, AND MEDULLA LESIONS OF SPECIFIC NATURE, CAUSING PARALYSIS OF THE RIGHT THIRD NERVE, TRIGEMINAL NEURALGIA, AND EPILEPSY.*

Dr. Amidon presented a specimen of above, with the following history:

Wiclow, æt. 33; for two years had suffered from amenorrhœa, neuralgia in the upper two branches of both fifth nerves, pigmentation of the skin in neuralgic area, and epileptic attacks with a nasal aura. Later in the disease she developed anorexia, slow and difficult articulation and deglutition, vomiting and constipation. All these symptoms went away under mixed treatment, and patient was discharged cured.

Recurrence, however, occurred in three months with greater severity, and patient died comatose, with all symptoms narrated above.

At the autopsy there were found, besides traces of old syphilitic inflammation in the liver and a parenchymatous nephritis, numerous brain lesions, viz.: yellowish, nodular deposits in each anterior perforated space, and, at the commencement of the fissure of Sylvius, a gummy tumor replacing the right third nerve and invading the pons and crus, and a grayish, translucent deposit on the posterior surface of the medulla oblongata.

The lesions everywhere seemed to be of vascular origin.

The tumor itself, connected with the basilar artery, consisted of small round cells with no intercellular substance. The vessels in the pia mater show marked exudation of new cells into the perivascular spaces and surrounding cortex, and the medulla also shows a dense, small-celled infiltration into the region of the lower sensory root of the fifth nerve.

The interesting points are, whether the deposit in the anterior perforated spaces caused the nasal aura, and whether the lesion of the lower fifth nucleus and root does not tend to show that that part gives origin to the upper branches of the fifth nerve.

* Service of Dr. W. H. Draper, New York Hospital.

THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES.

MICROSCOPICAL AND BIOLOGICAL SECTION.

Regular Meeting on October 4, 1879.

Dr. Kenderdive, President, in the Chair.

(Reported for The Medical Record.)

THE HISTOLOGY OF TUMORS.

Dr. Carl Seiler, the lecturer for the evening, spoke at length upon the subject of the "Histology of Tumors." He said that he did not wish to enter too fully or too scientifically into the histology of tumors, as there is so much difference of opinion among students in regard to the morbid processes involved, and because he desired to adapt his remarks to the comprehension of all the audience.

All tumors were formerly divided into sarcomata and carcinomata. They are still so named, but the sarcomata, or *fleshy tumors*, were considered harmless, while the carcinomata, or cancerous, were held to be malignant. The lecturer then said that there were many of the sarcomata as malignant as the carcinomata, the malignancy depending in great measure upon the position of the tumor and the proneness to secondary deposits of tumors in distant organs. To illustrate this point, he called attention to the fact lately brought forward by Dr. S. W. Gross, of Philadelphia, that the round and spindle-celled sarcoma of the long bones are by far the most malignant tumors, and that they usually formed secondary deposits in the lungs, to which the patient succumbs. The same form of tumor in connection with other bones was not to be considered very malignant, and could be removed by an operation with considerable hope of saving life.

Tumors are at the present day divided into: first, those formed of *connective-tissue* elements in various stages of development; and second, those formed of *epithelial* structures. The presence of the so-called *cancer-cell* or *spindle-cell* was formerly regarded as the certain evidence of a malignant growth, and until a period within the last ten years was so taught in our medical schools. This spindle-cell is also found in normal connective tissues, in embryonic tissues, cicatrices, etc.; and although such distinguished histologists as Virchow, Billroth, and Rokitansky have endeavored to find a special cell indicative of the malignant nature of cancer, they have never succeeded. All are agreed that cancer should not be regarded as anything distinct, and that its cell-elements are either identical with the embryonic or with the fully developed tissues. The simplest form of tumor is found in *granulating tissue*, or what is known as *proud flesh*. When we make a section of such a neoplasm we find that the cells present the simple round appearance analogous to the embryonic connective-tissue cell, and precisely identical with the cells of the round-celled sarcoma. A similarity also exists in the blood-channels of the round-celled sarcoma and of embryonic tissue, they being without walls. By throwing out prolongations, and by contraction of the embryonic cell-condition, the connective-tissue cells are formed, and in granulating surfaces which advance to the stage of healing, we find the cicatrix made up of or containing the spindle-cells. These two forms of cells,

the one as found in simple granulating surfaces as well as in the round-celled sarcoma, the other as found in connective tissue and in the spindle-celled cancer, have the power of infecting the tissues. In this consists the special malignant characteristic. The apparent presence of the round cells in the spindle-celled tumors is owing to the transverse sections of the interlacing spindle-cells, and is always so regarded.

The nature and character of the lipoma or fatty tumor, the osteoma, and various tumors formed by the admixture of these elements, were referred to by the lecturer. The fibroma was described as a tumor which in itself did not produce any dangerous symptoms, but might, indirectly, by its position. Dr. Seiler was of the opinion that the recurrent fibroma of the English surgeons must be looked upon as an encapsulated spindle-celled sarcoma, and the recurrence *in loco* of the tumors must be explained by the presence of tumor-elements in the tissues outside of the capsule, which elements have the power of reproducing the neoplasm.

The second class of tumors, the epithelial, were then considered. By irritation of the epithelial elements, or when the nutritive processes are actively stimulated, we have an undue development of these cells outward, constituting the form of tumor known as the papilloma or *wart*, the simplest form of epithelial tumor. By the same process, limited by the thick and hardened epidermal layers at a later period of life, the cell-growth extends inward in the direction of the least resistance, and the form of tumor known as the epithelioma results.

The adenomata, or glandular tumors present the appearance of increased glandular elements. The proliferating epithelial cells may, however, fill up and enlarge the acini to such an extent that finally the limiting membrane is broken through, and the cells continue to grow into the adjacent connective tissue, where we find nests of proliferating cells, usually of an elliptical form from being pushed forward. When the connective tissue predominates, or is greatly increased in amount, a hard scirrhus cancer will result. If the connective tissue fails to increase, and the epithelial cells develop to such a degree as to wither or overbalance it, then these cells, also breaking down from pressure, etc., form the soft variety of cancerous tumor. In conclusion, the lecturer said that the chief point which he desired to bring before the gentlemen of the Academy was, that there is no such thing as a *cancer-cell*, and that the question whether a cell is malignant or not, depends upon the infiltration of the new cell-growth, the position of the cell-growth, secondary deposits, etc., etc.

Dr. Alfred Reed gave as a reason why the lungs are a favorite seat of secondary cancerous deposits, that they are formed by the same germinal layer of the embryo as the bones.

In reply, Dr. Seiler said that tumors not originally situated in bones form secondary deposits in the lungs, and, on the other hand, tumors of the bones form secondary deposits in other internal organs, and especially in glandular organs. He further said that it needed but a very few of the tumor elements carried to a distant point by either the circulation of the blood, or, as is more frequently the case, by the lymphatic circulation, in order to start a new point of development. In proof of this the lecturer related some experiments lately performed in Germany, in the course of which a few cartilage cells taken from a cartilaginous tumor were engrafted upon the cornea of a rabbit, and also in the muscular tissue of another animal of the same species, which formed the starting-point for similar growths to that from which they had been originally taken.

The lecture was profusely illustrated by diagrams, and by a large number of slides showing the different varieties of tumors and their histological details.

THE NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, October 30, 1879.

Dr. Salvatore Cabo, Chairman.

The Section was called to order, and the minutes of the last stated meeting were read by the Secretary, Dr. Henry E. Crampton.

ABSCESS OF THE ABDOMINAL WALLS.

The Chairman then read a paper on the above subject, in which he gave the history of an interesting case that involved important points in diagnosis. The patient was aged fifty-eight years, a widow, and the mother of several children. In 1878, September 29th, she, for the first time, occasionally felt a dull pain in the left umbilical region. She suffered from habitual constipation, and had a large, flabby abdomen. At that time there was a nodule about the size of a walnut, painful to the touch, and situated in the substance of the left transversalis muscle, immediately over a portion of the descending colon, which was distended with fæces. It could be readily grasped, on account of the relaxed condition of the abdominal walls. The bowels were emptied by cathartic medicine, and the patient was at once relieved. They again became constipated, and the same trouble returned; they were again emptied, but the swelling increased in size, was painful to the touch, and smooth on its surface. That was in February, 1879, when Drs. F. V. White and James L. Little saw the case in consultation. There was slight enlargement of the superficial veins. The tumor was large; it was tympanitic on percussion; there was no distinct sense of fluctuation; there was no marked heat. Dr. Caro inclined to the opinion that it was an abscess. Drs. White and Little thought it was a malignant intra-abdominal growth. All consented to the introduction of a hypodermic needle. A needle was introduced, and passed in its entire length, when the end moved freely as though in a cavity. The piston was then drawn, and the barrel was filled with a purulent fluid, exceedingly offensive. The question then arose, when should the operation for the removal of the pus be performed, and it was decided to cut for it at once. Accordingly an incision, two inches in length, was made six inches below the umbilicus and eight inches from the median line. The dissection was carried carefully down about an inch, when a sac was reached, which was opened, and a large wash-basin full of decomposing and exceedingly fetid pus was evacuated. The sack was washed out with carbolized water, and a plug of lint left in the wound. In the evening the dressings were found saturated with pus; they were removed, and about one quart of pus was evacuated. The sac was washed out regularly; the discharge soon began to diminish in quantity, and quickly presented a healthy appearance, and on the 27th of December the woman was regarded as cured.

On March 24 she took cold, and on the 3d she had

a severe chill, followed by fever and pain in the region where the opening was made in evacuating the former abscess. Her pulse was 140, and temperature 103⅕° F. She coughed, and there was a tendency to vomiting. A poultice was applied to the painful part.

March 4th.—Pulse, 100; temperature, 102° F. Removed the poultice; tore open the old cicatrix, and about one pint of offensive pus was evacuated. The sac was treated as before, and on the 15th the patient was again discharged as cured.

The case was interesting on account of the exceptional lack of symptoms. Early opening of an abscess when the presence of matter can be ascertained was advocated, and opening by means of an incision. Dr. Caro also regarded it as desirable that the injection of the cavity should be made by some instrument by which the fluid could be removed without removing the nozzle of the syringe. He thought the cause of the abscess in this case was the irritation produced by the intestine, distended with hardened fæces, rubbing against the abdominal wall. He dwelt at some length on the pathological process of the formation of pus.

Dr. J. Lewis Smith remarked, regarding abscess in the abdominal wall in children, that there were two kinds: first, those in which the cause was located in the intestine, and produced by round worms; and second, those in which there was a lodgment of some substance in the appendix vermiformis, and giving rise to abscess. It occurred to him, on account of the great offensiveness and the great quantity of discharge in Dr. Caro's case, that the cause might be within the intestine, and that a piece of feculent matter lying in one of the pouches of the colon had excited irritation and inflammation. He favored the early opening of abscesses seated in the walls of cavities, whether pleuritic or abdominal, and referred to cases in which delay had permitted them to open into the pleural cavity, give rise to empyema, and cause death. The strength of the solution of carbolic acid he usually employed for washing out such cavities was 1 to 40.

Dr. Merrill remarked that the case which he reported to the Section at a former meeting, and which gave rise to the present paper, was one of pelvic abscess, resulting from cellulitis, and terminating in rupture internally and general peritonitis, and death. He asked regarding the propriety of opening such abscesses early, either through the abdominal wall or through the vagina.

Dr. Fordyce Barker replied that his rule was to aspirate a pelvic abscess as soon as he could detect the slightest evidence of fluctuation or even a suspicion of it. In several cases he had drawn out only a drachm or two of serum before the formation of an abscess, and had found that the process of cure had been very much promoted by the procedure. Formerly he opened through the vaginal walls in some cases, but latterly he had found that the aspirator accomplished all that was necessary; and especially was that true regarding pelvic cellulitis occurring during the puerperal period. In the early period of these cases the aspirator was sufficient, but in the latter stages of some of the cases the aspirator might not give a sufficiently free outlet for the fluid. If there were no constitutional symptoms present, use the aspirator at once; no harm came from its use, and he had never had occasion to regret using it.

Dr. J. C. Peters referred to the occurrence of abscesses in the recti muscles of the abdomen. He was not able to understand how constipation could produce abscess in the abdominal wall without exciting peritonitis. The peritonitis, however, might be local, and give rise to adhesions. Abscesses in the recti muscles were usually regarded, at first, as cases of peritonitis.

After remarks by Drs. Sell, Chadsey, and Hanks, the paper, on motion, was referred to the Academy, and the Section then adjourned.

Correspondence.

"STATE MEDICINE."

To the Editor of The Medical Record.

Sir:—In reading the Record for November 8, 1879, we find an article on State Medicine, by Prof. Henry M. Lyman, in which some statements are made which, if logically carried out to their legitimate conclusions, would, we think, render it practically impossible to prevent the spreading of any epidemic by the action of boards of health, or other local or State organizations.

Among other statements, Prof. Lyman says that "The old doctrine that every man's house is his castle, is as true in matters pertaining to health, as it is in affairs of politics or religion. Government has no more right to compel a man to make his home healthy, than it has to compel him to make his home religious."

The glaring fallacy of the above statement is self-evident, from the fact that the two things mentioned are not comparable with each other.

The State cannot, nor indeed ought not, to interfere to compel a man to make his home religious, simply because scarcely any two men would agree as to what is meant by the term a religious home; hence, such legislation would be practically inoperative and impossible.

If, however, a man in exercising this so-called right to form a home, practises violations of the moral code, the strong arm of the law does interfere, and that very summarily, to protect the community from his evil deeds.

A similar principle underlies all legislation intended for the suppression of disease.

We deny absolutely that any man has either a legal or moral right to make his home unhealthy, simply because the relations of life are so intimately bound together in modern civilization, that he cannot do so without endangering the lives of others.

This principle of law also holds good in all other cases of similar character; if a man, for instance, owns a house in a city, he will not be allowed to burn it down. The law says to him, you have no right to destroy this property, even if it is your own, for the reason that in so doing you endanger the lives and property of those who live adjoining you.

But let us give one or two practical exemplifications of the working of these matters in every-day life.

The writer recently attended a family in which three (3) children were attacked with scarlet fever, from visiting a family who concealed the fact of scarlatina being present in their household; one of these children very narrowly escaped death, but they finally all recovered.

Another family, exposed in a similar manner through the same culpable suppression of the truth, were not

so fortunate; their only child, as the father expressed it, "was simply murdered."

If Prof. Lyman were in the position of the parent who lost his child in this way, we are inclined to think that he would materially modify his opinions, and might, perhaps, think that it would be well for the State to "compel a man to make his home healthy."

In another part of his paper, Prof. Lyman says that laws for the prevention of disease will be unpopular; this is, to a certain extent, true. We have ourselves seen the officers of the law hooted at, pelted with stones, and even forcibly resisted in the removal of nuisances from crowded localities; but this would scarcely be an argument for their retention.

In spite of all that has been said against legislation on the subject of health, we believe that intelligent citizens, as a class, are willing to submit to reasonable regulations, and even restrictions for the sake of the common good.

Believing as we do that the principles that Prof. Lyman advocates would render farcical all legislation on the subject of health, we have deemed them just subjects of criticism and comment.

ROBERT REYBURN, M.D.

WASHINGTON, D. C.

SUDDEN DEATH IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—We have read with interest Dr. G. E. Goodfellow's letter in your issue of November 15th, in which he narrates the history of a case of thoracentesis, in which great pain was experienced by the patient on three different occasions, at the point of introduction of the needle. On the first occasion "the act of puncture gave him no pain, but a few minutes after the needle was introduced he began to complain of pain in the region of the wound. It was also diffused over that side of the thorax. Moving the needle did not increase it greatly. One *gallon* of serum was withdrawn," etc. On the second occasion, "from the minute after the needle was inserted he complained of pain, which in a short time became most intense." "About fourteen ounces of fluid had been *very slowly* taken out, his complaints *steadily increasing* (italics ours), when a most alarming collapse came on," etc. On a third attempt, one week later, "the cavity as tense as before;" after less than an ounce had been withdrawn, "he complained a little, when an overwhelming . . . . attack of pain supervened, and the same collapse came on," etc.

It will be observed in all three of these attempts that the pain did not attend the act of puncturing of the chest-wall, but came on after a certain amount of fluid had been withdrawn. The presumption seems to us strong that the "pain of the puncture, *pur et simple*," had no connection whatever with the result. The probabilities seem to be that the needle came in contact with some of the viscera, lung, diaphragm, or pericardium after the withdrawal of a certain amount of fluid, and that the intensity and *diffusion* of the pain, and the subsequent collapse, are to be thus explained.

Dr. Goodfellow does not state the site of the puncture nor the depth to which the needle was inserted. Which one of the above-mentioned viscera may have been involved, he can judge better than we can. In our own limited experience with the operation, we have not found it easy to avoid touching deeper-lying viscera, and have a very disagreeable and vivid recollection of the sensation communicated to the hand holding the needle by the grazing of what was probably the lung against its point.

In Dr. Goodfellow's case the patient had been sicg four months. If during this four months the lunk had been retracted, it is reasonable to suppose that its expansion would be difficult, and the compensatory forcing up of the diaphragm and forcing over of the heart to fill the potential vacuum caused by the withdrawal of the fluid would be very considerable. These considerations are, of course, of little weight as applied to the third attempt, when only about an ounce of fluid was withdrawn. The location and depth of the punctures are the all-important points in determining the plausibility of the explanation of the case which we offer.

Very truly yours,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH STREET,
Nov. 15, 1879.

PHARMACOPŒIAL REMEDIES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Among the proprietary, trade-marked, and patented medicines largely used by some, even eminent physicians, are: McMunn's Elixir, Chlorodyne, and Winslow's Soothing Syrup.

The composition and mode of manufacture of the first has long been known (see United States Dispensatory, 13th edition, p. 1470), as the formula was found among the papers of the late pharmacist Mr. Chilton, who is said to have received it from the proprietor. It is merely a watery solution of the extract of opium, also deprived of the odorous and other injurious ingredients of the drug by means of ether. The ether extracts the narcotina and the noxious odorous matter of opium, which are probably the most offensive and least useful constituents. The place of the Elixir is now, and has long been well supplied by the Tinctura opii deodorata of the U. S. P., which Wood and Bache think should be called Infusum opii deodoratum, or some other title expressive of the fact that it is essentially a watery solution of the extract of opium, alcohol being used in no degree as a menstruum, but merely as a preservative.

It is barely possible that loyal physicians may consistently use such proprietary medicines at their first introduction; but they should quickly substitute their own prescriptions therefor, which, doubtless, if aided by a good chemist, will be far more scientific and useful than the patented and advertised article of any mercenary proprietor.

Chlorodyne is still largely prescribed by physicians who should know better than to use a remedy which has all the bad effects of the worst preparations of opium. Squire (see Companion to the British Pharmacopœia) gives the formula for this complex and dangerous medicine, viz.: Chloroform, 4 oz.; ether, 1 oz.; rectified spirit, 4 oz.; molasses, 4 oz.; extract of liquorice, 2½ oz.; muriate of morphia, 8 grs.; oil of peppermint, 16 minims; syrup, 17½ oz.; prussic acid (2 per cent.), 2 oz. To combine them, dissolve the muriate of morphia and oil of peppermint in the rectified spirit; then mix the chloroform and ether with this solution; dissolve the extract of liquorice in the syrup, and add the molasses. Then shake the two solutions together, and add the prussic acid, with some tincture of capsicum.

The imported article is very dear indeed; far out of proportion to its real value and usefulness. Any pill of opium and cannabis indica with capsicum is equally good; the various well-known combinations

of the solutions of morphine with prussic acid or aqua laurocerasi are equally manageable; and the writer from the very first used, instead of the patented English article, with equally good, and even better results, a combination of chloroform, tinct. cannabis indica, solution of morphine, prussic acid, or cherry-laurel water, and syrup of ginger, with or without capsicum. PHARMACOPŒIA.

MEDICAL ETHICS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the account of the last meeting of the County Medical Society, in your issue of Nov. 15th, it is stated that the Censors reported that the Society had not the legal power to deal with certain breaches of medical ethics. I beg leave to say that this is an error, as the careful perusal of the Censors' report will show. On the contrary, the Society does possess ample legal powers in this direction, conferred by the Statutes of April 10, 1813, and April 7, 1866.

Respectfully yours,
HENRY G. PIFFARD, M.D.,
Secretary of late Board of Censors.

Obituary.

JAMES AITKEN MEIGS, M.D.,

PHILADELPHIA, PA.

PROFESSOR JAMES AITKEN MEIGS, a physician of marked ability, and an eloquent lecturer, whose knowledge of all subjects appertaining to the philosophy and practice of medicine was as comprehensive as it was profound, died suddenly, on Sunday morning last, November 9th, at his residence, No. 1405 Spruce street, Philadelphia, after a brief illness. A little over one week ago he was attacked with a succession of chills, followed by a fever, which continued for nearly seven days, when, through excessive exhaustion, he was compelled to take to bed. On Saturday evening last, his attending physician, Dr. John H. Brinton, called in the assistance of Dr. Da Costa, one of Dr. Meigs's colleagues in the faculty of Jefferson Medical College, and, after an examination and consultation, Dr. Da Costa pronounced the case one of blood-poisoning. After a severe night of fever, it was found on Sunday morning that he was considerably jaundiced. As the morning wore on, there was, however, an apparent improvement in his condition. He took breakfast with a relish, and after he had lain back in his bed a few minutes, he remarked to his father that he "felt so much improved that he thought he would get up soon and dress." Shortly afterwards his breathing became thick and stertorous, and his father, getting alarmed, hurried from the house for the purpose of summoning Dr. Brinton. On reaching his room, they were shocked to find him dead, life having departed, it is believed, almost immediately after his father had left him. Death was caused by embolism of the heart, which was produced by the blood-poisoning.

Prof. Meigs was born in Philadelphia on the 31st day of July, 1829, of English and Scotch ancestry on his father's side, and Scotch and German through his mother. His primary education was imparted by private tutors. In 1843 he entered the Mount Vernon Grammar School, from which he passed to the Central High School. Graduating from that institution in February, 1848, he at once began the study of medicine in the offices of Drs. F. G. Smith and J. M. Allen. He matriculated in Jefferson Medical College in October of the same year, and in March, 1851, graduated with high honors. He then began practice in Philadelphia, where he since pursued it until his death. For several years he acted as assistant to the Professor of Physiology in the Pennsylvania College. In September, 1854, he was appointed Professor of Climatology and Physiology at the Franklin Institute, holding the position for eight years. In 1855 he was elected physician to the Department of Diseases of the Chest in the Howard Hospital and Infirmary for Incurables, a place which he held for thirteen years.

In 1857 he accepted the chair of Institutes of Medicine in the Philadelphia College of Medicine, and occupied it until April, 1859, when he was transferred to the Professorship of Institutes in the medical department of the Pennsylvania College, previously held by Professor F. G. Smith, for whom the chair was originally created by the trustees of the parent institution at Gettysburg. While in the latter school in its palmy days he delivered two systematic courses of lectures on physiology, illustrating them with an extensive series of vivisections, which attracted much attention at the time, as no sustained systematic attempt to teach physiology experimentally had been made before in either of the four medical schools then existing in Philadelphia. In June, 1868, on the resignation of the late Prof. Robley Dunglison, he was elected by the Board of Trustees of Jefferson Medical College, Professor of the Institutes of Medicine and Medical Jurisprudence. In August of the same year the Board of Managers of the Pennsylvania Hospital chose him, without the usual canvass, one of the physicians of that institution. These two positions he held until his death.

He was a member of the Philadelphia County Medical Society, of which he was elected Recording Secretary in 1857, and a year later Corresponding Secretary, to which office he was twice re-elected, becoming in 1867 one of the Vice-Presidents, and, in 1871, the President. He was also a member of the Franklin Institute; the Academy of Natural Sciences; the College of Physicians; the State Medical Society of Pennsylvania, and the American Medical Association; in the two latter his membership was permanent. He held a membership in the State Historical Society of Wisconsin; the Biological Department of the Academy of Natural Sciences; the American Association for the Advancement of Science; the Medico-legal Society of New York; the Numismatic and Antiquarian Society of Philadelphia; the New York Lyceum of Natural History; the Linnæan Society of the Pennsylvania College at Gettysburg; the Société d'Anthropologie de Paris; the Ethnological and Anthropological Societies of London; the Societas Medicorum Svecarræ, of Stockholm; and the International Congress of Prehistoric Archæology.

He wrote and published many articles of considerable merit, among them one on the physiology of stammering and its treatment by mechanical means. In 1856 he prepared an appendix to the first American edition of Carpenter's work on the microscope. The following year, being chairman of the Standing Committee on Anthropology, he arranged and classified the extensive collection of human crania in the Academy of Natural Sciences, and prepared a systematic catalogue of the collection, which was pub-

lished by the Academy. He also contributed during 1857, to Nott and Gliddon's "Indigenous Races of the Earth," an essay on the cranial characteristics of the races of men, presenting a general survey of human skulls in their ethnical relation; and edited an American edition of Kirke's Manual of Physiology. To the proceedings of the Academy of Natural Sciences, the reports of the Smithsonian Institution, and other like publications, he contributed at various times many original and interesting articles on craniography. He likewise contributed numerous reviews on a great variety of physiological, medical, and scientific subjects to the *Medical Examiner*, the *North American Medico-Chirurgical Review*, and the *American Journal of Medical Sciences*.

He was unmarried, and leaves no relatives alive save his aged father.

JOHN ROBINSON, A.B., M.D., M.R.C.S.

NEW YORK.

JOHN ROBINSON was born in Ireland on the 4th of January, 1809. He was the oldest son of a Methodist minister. By his own exertions he obtained an education, graduating from Trinity College, Dublin, with honor. Immediately afterward he began the study of medicine. He graduated in his profession in 1838, in the city of Dublin, and shortly after visited London, where, on the 27th of July in the same year (1838), he was admitted to membership in the Royal College of Surgeons, England. His diligent attention to his studies while at college, and afterward in the hospitals and dispensaries of Dublin and London, won for him high commendation from his superiors. In 1839 he came to America and settled in this city, and soon enjoyed a large and lucrative practice.

Soon after arriving in New York he formed the acquaintance of the late Dr. John W. Francis, who took him kindly by the hand, and between them there sprang up an intimate friendship, which lasted to the close of Dr. Francis's life. Dr. Robinson once said to the writer, when presenting Dr. Francis: "Here is a man who was my friend when I was sorely in need of one."

In 1845 Dr. Robinson bought an estate (Anna Cora Mowatt's) at Flatbush, Long Island, to which he moved his family in the following year, himself still continuing in the active practice of his profession in New York City during the day, returning to his country home at night.

Dr. Robinson possessed, in a remarkable degree, all the elements of a successful practitioner,—an active mind, quick perception, great personal magnetism, and a remarkable insight of character. He was a hard worker, never shrinking from any demands made upon him in his professional capacity. His was a strong character—proud, independent, positive. To those who knew him but slightly he presented a cold exterior, repelling any approach to familiarity. In his social life, and in the home circle especially, his many virtues shone out with a brilliancy that not even the lapse of time can dim.

He was not a contributor to the medical literature of the day, and his residence out of town prevented his taking an active part in the medical societies. He died at his home in Flatbush, on Friday, Nov. 7th, in the 71st year of his age, of Bright's disease of the kidneys. He married the daughter of a British army officer, who, with nine children, survives him.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 9th to November 15th, 1879.

KING, WILLIAM S., Lieut.-Colonel and Surgeon. The extension of his sick leave of absence granted him March 6, 1879, from A. G. O., is further extended six months on account of sickness. S. O. 254, A. G. O., Nov. 8, 1879.

MCPARLIN, T. A. and BILLINGS, J. S., Surgeons. Directed to represent the Medical Dep. of the Army at the meeting of the Amer. Pub. Health Association at Nashville, Tenn., Nov. 18, 1879, and upon its conclusion to return to proper station. S. O. 255, C. S., A. G. O.

TREMAINE, W. S., Capt. and Asst. Surgeon. The leave of absence on surgeon's certificate of disability granted him in S. O. 214, Oct. 27, 1879, from headquarters, Dept. of the Missouri, is extended two months on surgeon's certificate of disability. S. O. 255, A. G. O., Nov. 11, 1879.

MEACHAM, FRANK, Capt. and Asst. Surgeon, Ft. Brown, Texas. Granted leave of absence for one month. S. O. 236, Dept. of Texas, Nov. 8, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. To report in person to Col. Albert G. Brackett, 3d Cavalry, commanding troops at Rawlins, W. T., for duty with his command. S. O. 102, Dept. of the Platte, Nov. 10, 1879.

ELBREY, F. W., Capt. and Surgeon. Relieved from duty in Dept. of the South, and to report in person to the Comdg. General, Dept. of the Missouri, for assignment to duty. S. O. 254, C. S., A. G. O.

BYRNE, C. B., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Comegys, to comply with S. O. 235, C. S., from A. G. O. S. O. 131, C. S., Dept. of Texas.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month from 25th inst., with permission to apply for one month's extension, provided he furnishes satisfactory medical attendance to the command at Fort Johnston, N. C., at his own expense. S. O. 168, Dept. of the South, Nov. 10, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. Assigned, temporarily, to duty as Post Surgeon at Fort Duncan, Tex. S. O. 231, Dept. of Texas, Nov. 3, 1879.

PORTER, J. Y., 1st Lieut. and Asst. Surgeon. Granted leave of absence for five months. S. O. 254, C. S., A. G. O.

RICHARD, CHARLES, 1st Lieut. and Asst. Surgeon. Relieved from duty at Ft. Buford, D. T., and to report to C. O. Ft. Snelling, Minn., for duty at that post. S. O. 124, Dept. of Dakota, Nov. 2, 1879.

List of changes in the Medical Corps of the Navy, during the week ending November 14, 1879.

GIHON, O. L., Medical Director, and B. T. GIBBS, Medical Inspector, ordered as delegates to represent the medical corps of the navy at a meeting of the National Public Health Association at Nashville, Tenn.

PLEUROPNEUMONIA.—This disease has recently broken out very extensively in North Staffordshire, England. A number of cattle have been killed, and strong measures are being adopted to stop the infection.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 15, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 8, 1879....	0	12	36	1	64	40	1	0
Nov. 15, 1879...	0	15	42	2	84	29	0	0

DR. M. J. DE ROSSET, editor of the *North Carolina Med. Jour.*, has removed to San Antonio, Texas.

"THE WAY IT WAS DONE IN LOUISVILLE."—In our last number, on page 480, a brief article was published with the above heading. Since it appeared, we have seen documentary evidence to prove that the "distinguished New York oculist" had no direct or indirect connection with, or responsibility for, any newspaper or other public notices which appeared concerning him before, during, or after his visit to Louisville.

DIAGNOSIS OF PLEURISY FROM PNEUMONIA.—In the remarks of Dr. Janeway, page 474, it should be stated that there was *not* usually great difficulty in diagnosticating pleurisy from pneumonia.

ILLNESS OF DR. KIRKBRIDE.—Thomas S. Kirkbride, M.D., Physician-in-Chief and Superintendent of the Insane Department of the Pennsylvania Hospital, is lying very dangerously ill at his residence on the grounds of the institution in West Philadelphia. The complaint is congestive chills and fever, attended with great nausea and pain in the region of the heart.

THE STAFF OF THE PENNSYLVANIA HOSPITAL.—The name of William Pepper, A.M., M.D., Professor of Clinical Medicine in the Medical Department of the University of Pennsylvania, is very prominently mentioned in connection with the filling of the vacancy in the visiting staff of physicians to the Pennsylvania Hospital, left by the death of Prof. James Aitken Meigs.

THE CHAIR OF PHYSIOLOGY IN JEFFERSON MEDICAL COLLEGE.—The Trustees of Jefferson Medical College, at the suggestion of the faculty, at their meeting on Tuesday evening, November 11th, elected Dr. Henry C. Chapman to fill the chair of physiology during the remainder of the present session, made vacant by the death of Prof. Meigs. The appointment will probably be a permanent one. Dr. Chapman is the son of old Dr. Nathaniel Chapman, who, during the latter part of his life, held the Chair of Physic in the Medical Department of the University of Pennsylvania, and author of a work on "Evolution," and of numerous contributions to the Proceedings of the Philadelphia Academy of Natural Science. For the past year or so he has been demonstrator of physiology in Jefferson College.

THE INTER-STATE MEDICAL SOCIETY met at Mason, Illinois, October 3d; Dr. Lecrone, President; Dr. W. H. Davis, Secretary and Treasurer.

DIPHTHERIA IN BROOKLYN.—There is a prevalence of diphtheria in Brooklyn almost amounting to an epidemic. From sixty to eighty cases are reported each week, with twenty or thirty deaths. This is nearly twice as many as occurred last year at the same time.

MANHATTAN EYE AND EAR HOSPITAL.—The tenth anniversary meeting of the Board of Directors of the Manhattan Eye and Ear Hospital was held on Tuesday, the 11th inst. The Secretary reported that the Hon. E. D. Morgan had recently given to the hospital twenty-five thousand dollars, which would free its building-site on the corner of Forty-first Street and Park Avenue from *debt*, and place the enterprise on a solid pecuniary foundation. The Medical Board, which is by the charter in the governing body of the hospital, reported that four thousand one hundred and sixty-eight (4,168) cases had been treated during the year, and five hundred and sixty-six (566) operations performed, which, added to the work of the previous nine (9) years, made the grand total of thirty thousand and fifty-three (30,053) cases, and four thousand nine hundred and fifteen (4,915) operations.

PAINLESS LABOR.—Dr. A. M. Smith, of Williamstown, writes: "On the 4th I was called to a case of labor. After waiting a while, expecting a pain, I asked: 'Have you any pain?' The answer was, 'No, only a pressure.' I then thought I should have to wait some time, but soon the 'waters' were discharged. I then made an examination, and found the head presenting at the inferior strait; the expulsive efforts regular and strong, *but not a particle of pain*. And within two hours she was delivered, naturally, of twin boys, one weighing seven, the next five and a half pounds, without the slightest suffering from the time I saw her, to the completion of parturition. She had taken nothing in the nature of a narcotic, nor did I give anything. This is my first case, in a practice of thirty years, of delivery without pain."

THE CUBAN YELLOW FEVER COMMISSION.—The Commission of four appointed by the President to visit Cuba and study yellow fever there, has returned to this country and will proceed to prepare a preliminary report, to be presented to Congress in December. During its stay in Cuba the Commission has had the full assistance of the Spanish Government and the co-operation of the best physicians in Havana. It has obtained the medical records and statistics of the hospitals for the past twenty-five years. The Commission is said to have learned many interesting facts in regard to the disease, especially as to its treatment. The most important points will be given to the public in its preliminary report next December.

MRS. MURRAY, wife of Rev. W. H. H. Murray, is a practising physician.

A NEW HOSPITAL is to be built at Woonsocket, R. I., through the liberality of the late Dr. Ezekiel Fowler. The hospital is to be constructed on the pavilion plan and will be practically free.—*Bost. Med. and Surg. Jour.*

DR. SEXTON'S PRIZE ESSAY.—The MEDICAL RECORD of last week, in alluding to the motto of Dr. Sexton's essay on Affections of the Ear arising from Diseases of the Teeth, through a typographical error made it read Ore Audi, instead of the correct motto, "Ore Auri."

BOOKS RECEIVED.

A TEXT-BOOK OF PHYSIOLOGY. By M. FOSTER, M.A., M.D., F.R.S., with illustrations. Third edition. London: Macmillan & Co. 1879.

Original Lectures.

TYPHOID FEVER.

A Clinical Lecture delivered at the Pennsylvania Hospital, Philadelphia.

By J. M. DA COSTA, M.D.,

Professor of the Theory and Practice of Medicine, and of Clinical Medicine in Jefferson Medical School.

TYPHOID FEVER COMPLICATED BY ORGANIC HEART-DISEASE.

I shall first call your attention to-day to two cases of typhoid fever, which are in my wards -one very illustrative of the typical typhoid-fever relapse, and the other presenting some peculiarities which will amply repay a closer study.

The first patient that I bring before you has been sick since the 24th of September—that is as nearly as we can make out. There was diarrhœa at first, and this was soon associated with fever and with a temperature of 104½°. On the day of his admission his pulse was not above 88. It is a very remarkable fact that the pulse should remain so low. Looking over the pulse chart from the day of admission, which was probably the fifth day after the inception of the disease, we find the pulse marked down at 86, 80, 60, 66, 70, and so on. During all this time the temperature ran high; that is, it was not what would be a high temperature for fever, but high as compared with the normal. The evening average was about 102°, with a daily morning fall of from one to two degrees. Here at once we strike the fact that the patient's pulse did not correspond with his temperature. Temperature and pulse usually go hand in hand. In this case, on the contrary, there has been a marked disproportion between the fever and the state of the pulse from the very beginning. Did this dissimilarity apply in this case to the frequency of the pulse alone, or to its character also? Only to the former; for the pulse, though slow, was a very compressible one, and in that respect was a typical fever pulse.

I will not say much to you regarding the general symptoms of the case. There was the usual eruption, the spleen was enlarged, and diarrhœa continued moderately active. The temperature to-day is 97½°, and it has been as low as that three or four times within the past week. This temperature is lower than the normal; but such a state of affairs is not unusual in convalescence from typhoid fever. His tongue is moist and slightly coated. What about the other viscera? Do they afford us any explanation with regard to the state of the pulse?

Let us make a careful examination. In listening to the heart I can distinguish a most marked systolic murmur, which is harsh, sharp, well defined toward the apex and less marked toward the right base. This systolic murmur is associated with a sharp second sound. There is very evidently something wrong with the heart. It is a nice case for diagnosis.

Are the physical conditions of the heart a result of the fever process, or are they entirely independent of it?

This brings us to a consideration of the state of the heart in fevers. In all low fevers, but preëminently in typhoid fever, there is a cardiac murmur present which is largely due to the condition of the blood, aided, no doubt, by the flabby state of the ventricles. Are we dealing with this kind of cardiac murmur in this case, or has there been preëxisting and organic disease? The cardiac murmur in this instance does not, I am quite confident, belong to the fever process. In the first place, it was discovered upon the very day of admission—*i. e.*, it was present in the first week of typhoid fever. In the next place, it was and is harsh, rough, and has a most marked second sound associated with it; and, thirdly, it is very strictly limited to the apex. This is not the history, or sequence, of the cardiac murmur of typhoid fever. It comes on late in the course of the disease; it is not rough, and not associated with a distinct second basis sound; and it is not so strictly limited to the apex. It is very plain that the state of the heart has nothing to do with the fever process here.

But the strongest proof which we can derive from the physical signs is that obtained by percussion. The percussion dulness in the cardiac region is very much increased in extent. This proves that the heart itself has increased in size, and I am quite sure that this increase in the size of the heart has not been due to the fever process. This point of diagnosis has a very important bearing upon our prognosis and treatment.

To come back to where we started—what have we now to state regarding the cause of the comparatively low pulse? Is it to be explained by the original mitral difficulty antedating the typhoid fever? I think that it is to a great extent to be so explained. I have frequently found organic heart-disease complicating typhoid fever. In these cases the frequency of the heart's action does not increase in proportion to the height of the fever, but the pulse often remains stationary. I have even known of the coexistence of fatty heart in these cases without any rise in the rapidity of the circulation. This is not an absolute rule, but it is the one which general experience has taught me to follow, *i. e.*, the pulse in such cases is apt to remain stationary, or, at least, not to show any great variation.

This persistence of the normal pulse throughout the typhoid fever process makes me always suspect disease of the heart, and careful examination of the case has generally proven my fears to be but too true.

These points, which we have just been discussing, have a very direct bearing upon the question of prognosis. If the murmur be merely due to the altered state of the blood, we always hope to remove it entirely by means of iron and a general tonic treatment; but this man will recover from the typhoid fever with the cardiac malady still in force, for the heart-disease in his case antedated the typhoid fever.

Thus you see that we have discovered an accidental, but very interesting condition, which has a very important bearing upon our prognosis and treatment.

RELAPSES IN TYPHOID FEVER.

This case presents a very characteristic typhoid-fever relapse, and will therefore serve us as a very excellent illustration of the true second attack of the disease.

The patient is a German, and, owing to his very imperfect knowledge of English, we have experienced considerable difficulty in obtaining any accurate history from him. What we do know is, that he walked into the hospital on October 3d, in a state of high fever and nervousness, bordering on delirium. He was a very ill man when we first saw him, as was conclusively proven both by his mental condition and by his temperature, which was 104°. His pulse upon admission marked one hundred and twenty beats to the minute; his tongue was very tremulous; his ab-

domen was tympanitic, and there were a few rose-colored spots apparent. In addition to these unmistakable signs of the presence of typhoid fever, we were able to distinguish a soft systolic, basic murmur. This last fact would have been enough to prove that the fever must have existed already for some time, had all other reliable signs been wanting. The extent of the blood-changes seemed to indicate that the case had progressed well into the second week when we first saw the patient.

The man remained in the wards, experiencing all the ups and downs usual to the disease. There was some epistaxis, and the fever frequently raised the evening temperature to 103°. The case was treated in the usual manner—mainly by a well-regulated diet. As medicine, five drops of the officinal nitro-muriatic acid, well diluted, were given every three hours, and occasionally a few drops of turpentine were administered, as the state of the tongue and the tympanitis demanded. With this care the case progressed rapidly toward complete recovery, so that on the 18th of October the morning temperature was 99°, and it only rose to 100° in the evening. On the morning of October 20th it was still lower, the record noting 97½°, with an evening exacerbation on that day of only one-half a degree (98°). On October 21st, the morning temperature was again 97½°. The man's mind was clear, the delirium had completely left him, and his appetite had returned to its usual vigor, when suddenly, on the evening of the 21st, the temperature shot up to 101°. Next morning it fell again; but on the next evening it had risen nearly to 102°, and from that time on remained a fever temperature with marked morning remissions and evening exacerbations. Simultaneously there appeared again a typical typhoid-fever rash, which is only now leaving the patient. (You notice that the spots of rash disappear entirely upon pressure, but appear again plainly the moment the pressure is withdrawn.) This state of things has gone on until the second of the present month, since which date the temperature has again been falling, until to-day it has again nearly reached the normal. He now has only one large liquid stool daily.

The resident physician tells me that during the first period of convalescence, that is, during the period between the first attack and the relapse, the stools were almost normal; but the moment the relapse made itself felt, the diarrhœa again appeared in force. The resident thinks that the eruption had at no time entirely disappeared, but that there was certainly a marked increase in its amount when the symptoms of the relapse appeared.

In conclusion, I would merely point out to you that the man is well into his second convalescence; that his tongue is again moist; that his pulse is 76, and his temperature again down to 97½°. This all proves that the second attack also is over.

Those of you who are near enough can see this characteristic ridge on his nails, which is the only remaining sign of the first attack of fever. As regards the cardiac blood-murmur, it still exists, but is very soft, and most distinct over the left base.

The case presents some peculiarities. I do not know that they are so much peculiarities of this relapse as of all relapses, more or less. And, in the first place, you have all, I am sure, noticed the sudden shooting up of the fever process with the inception of the relapse. And then the other curious fact—that the temperature only remained high for a day or so, and then zigzagged with most marked morning remissions and evening exacerbations. You will generally find this rule to hold good in all relapses. There is a sudden bound up of temperature. It does not attain its height gradually, as in the first attack. It remains high but for a short time, and then the morning and evening changes become most marked. These morning remissions and evening exacerbations are much more marked in the relapse than in the original attack.

I knew that a relapse had taken place the moment my eye caught these zigzag lines on the temperature chart.

As characteristic of the relapse I would also have you notice the immediate reappearance of, or rather increase in the amount of both diarrhœa and eruption. There was also a recurrence of some of the nervous symptoms; not of the delirium, indeed, but of the excessive tremulousness. It is fair for me to guess that the spleen has remained enlarged throughout the course of the disease from the first. It may have gone down in size during the first convalescence, but it certainly swelled up again with the relapse. A very astute clinical observer says that the spleen never decreases in size while the fever process remains; while it may mark the beginning of a relapse by swelling up again, it has never entirely gone down.

A relapse of typhoid fever rarely lasts as long as the first attack. In this case it has been nearly three weeks since the relapse was heralded in, but as a general thing it does not last for more than ten days.

As regards the eruption in a relapse of typhoid fever—until I had made a particular study of this point myself, I did not know that it was the rule for the eruption to appear almost coincidently with the first symptoms of the relapse. In the original attack, and, indeed, generally, it does not show itself until the seventh or ninth day. The eruption of the first attack and of the relapse does not differ in character. Each relapse of typhoid fever is accompanied by an eruption, and this eruption usually lasts as long as the relapse itself. The eruption is not always in strict proportion to the intensity of the attack—*i. e.*, the intensity of the enteric symptoms. It is generally, however, most marked where the enteric symptoms are most marked.

A relapse in the course of typhoid fever may occur after the patient is to all intents and purposes entirely well of the disease.

There are many other points to which I might call your attention, such as the condition of the nails, tongue, etc., in a relapse, but I must hurry on. The case has been a very typical one.

In the majority of instances of relapse in this disease the prognosis is not bad, the mortality being but very slight if the proper treatment is employed.

The same treatment is employed in a relapse as in the first attack. The patient is put again upon the use of the mineral acids and the turpentine, eight grains of quinia are given daily, and the body is sponged all over every night and morning with cold water. The diarrhœa is limited by opiates and astringents.

What treatment shall we pursue during the rest of the few remaining days of convalescence? The patient has only one movement now a day—we will suspend the turpentine. In place of it I will order the tincture of the chloride of iron in twenty-drop doses, with five drops of muriatic acid, four times daily. I will still keep him upon a liquid diet. He has been taking f. ℥ iv. of wine regularly every day during the past week; this may be continued. He may have a few stewed oysters, or some milk toast, but no solid food. The quinia will be continued for a few more days.

Original Communications.

THE SPHYGMOGRAPHIC INDICATIONS IN ANEURISM.

By A. T. KEYT, M.D.,

CINCINNATI, OHIO.

(Read before the Cincinnati Academy of Medicine, Nov. 3, 1879.)

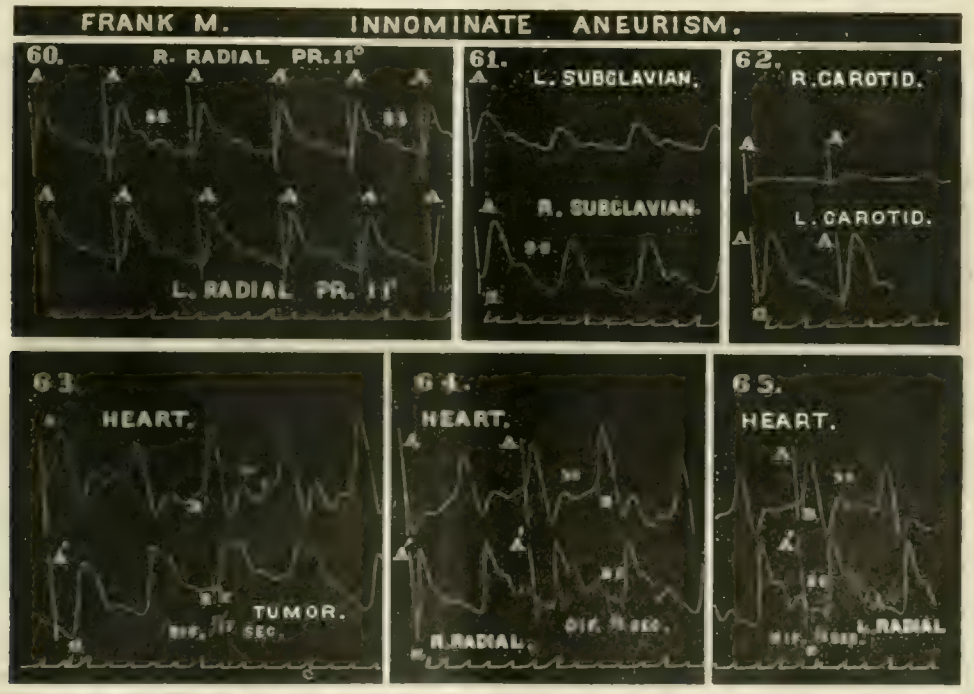
On the authority of a few distinguished names, supported, however, by a comparatively small number of experimental observations, it is currently taught that the pulsations below an aneurism afford two important indications of its presence: first, a characteristic form of pulse—a typical deformation; second, an abnormal delay of the pulse. If these changes exist, the former can be demonstrated with the simple sphygmograph, and the latter with a very perfect differential sphygmograph; and if the question be thus simple and settled, as stated, we have indeed arrived through the graphic method at a wonderful and gratifying precision in the diagnosis of aneurism. The object of this paper is to present some additional facts, and inquire anew as to the real value of these indications.

As regards deformation of the pulse below an aneurism, Marey* remarks: "When an aneurism exists on the tract of an artery, one observes below the tumor an important modification of the pulse; the quickness gives place to an extreme slowness, and often the touch is incapable of feeling this pulsation, because of the slowness with which the finger is raised;" and represents the pulse below an aneurism by a tracing with slanting up-stroke, rounded top, and gradual descent without mark of secondary waves.

Dr. Mahomed† gives sphygmographic tracings of several cases of aneurism in which this imperfection is well shown. Of three cases of innominate aneurism verified post-mortem, one shows marked distortion of the right radial as compared with the left, while two present the right radial correct in form and uniform with the left. From his cases, Dr. Mahomed infers that in pure innominate aneurism the right radial pulse presents the "aneurismal trace," while in aneurism of the innominate continuous with dilatation of the aorta, the right radial is little, if any, modified, and right and left correspond.

As regards delay of the pulse below an aneurism, François Franck‡ has contributed important observations. By means of an apparatus devised by himself, he showed, in a case of innominate aneurism, the that right radial pulse was delayed on the heart $\frac{18}{1000}$, and the left radial $\frac{11}{1000}$ second; and in another case the right and left radial pulses were delayed on the pulsation of the tumor, respectively .21 and .14 second. Thus, François Franck esteems delay of the pulse below an aneurism as constant and of the highest diagnostic value.

By means of my apparatus, consisting of two uniform transmission sphygmographs and a chronograph, all writing on the same glass slide, I have studied the pulsations in three cases of aneurism in which the conditions were verified after death. These cases, with their graphic showings, are here produced:



Explanation of the cuts.—The cuts are exact reproductions from the original glasses, effected by direct photography and skilful cutting. A, A' are lines made by the tracers, respectively, with the glass at rest. B parallel to A cuts the basal point of the proximal trace, and C parallel to A' cuts the basal point of the distal trace. B of the distal trace, also parallel to A', is the same distance from the latter as B is from A of the proximal trace. The space between B and C indicates the time difference between the pulsations, and its exact value is found by measurement on the corresponding part of the chronogram below. The latter indicates fifths of seconds.

* La Methode Graphique, p. 582.

* Medical Times and Gazette, vol. ii., p. 143. 1873.

† London Medical Record, March 15, 1878. Amer. Jour. Med. Sci., July, 1878, p. 258. La Methode Graphique, p. 586.

Case I. *Aneurism of the Innominate.*—For the opportunity of observing this case, I am indebted to Dr. Jos. Ransohoff, who also kindly furnished me the notes of the post-mortem. Frank M——, aged 48 years, presents a prominent tumor at the site of the right sterno-clavicular articulation, which manifests pulsation, thrill, and a systolic murmur. Second sound of the heart clear and greatly intensified. Respiration much embarrassed by pressure of the tumor against the trachea. The graphic records were taken January 1, 1879. A few days subsequently the man died, and the autopsy revealed a large globular aneurism of the innominate artery, about three inches in diameter. The cavity contained fibrinous coagula, which encroached upon and obstructed the carotid orifice, but left the subclavian orifice free. The aneurism communicated with the aorta through an opening, only somewhat larger than the normal innominate lumen. The walls of the aneurism were thick and firm, and only showed some degree of thinning and yielding at the apex of the external tumor. The aorta was much dilated from its origin through the entire arch; aortic walls firm. The aortic valves were expanded and thickened, yet competent.

Of the tracings, No. 60 shows the two radial pulses taken simultaneously. It will be observed that the pulsations are well formed—in fact, they show a rather low arterial pressure, but no departure from a normal type; that they are uniform with each other in amplitude, secondary waves, pressure degree and all. Especially will it be noticed that the signal lines (purposely placed near the basal points) are precisely in the same relation to the basal points in both tracings, which demonstrates the exact synchronism of the right and left radial pulses. The same characters and conformity of the radial pulses are shown again in Nos. 64 and 65. These representations also demonstrate that the time-difference between the cardiac and radial pulsations is about one-eighth of a second. (A seventh may be attained by extending the measurement beyond the lowest point of the radial traces, which is the more correct method for estimating the interval between the heart and arterial pulses.) Even a seventh of a second would not be greater than the average normal cardio-radial interval, with pulse at 90.

In No. 61, owing to the more superficial position of the right subclavian, its pulse-trace is more ample than that of the left; the pulsations are shown to be synchronous.

In No. 62 the right carotid pulse compared with the left is greatly reduced and deformed, yet there is between the pulses no appreciable asynchronism.

In No. 63 the *ligne d'ensemble* of the tumor-trace undulates in a marked manner with the respiration. In the ascending line just after what at first view would be taken as the basil point, is an angle of deviation. Measurement from this latter and the basil point of the heart-trace gives $\frac{1}{7}$ of a second as the time-difference between the pulsations of the heart and tumor—an interval entirely consistent; while measurement from the first point named, and the cardiac basil point would make the heart-tumor interval extremely short—too short, in fact, to be admissible on any just theory as the true representation. Therefore, in this case, the second point is adopted as marking the beginning of the discharge-wave from the heart, which is indeed the true pulse-wave.

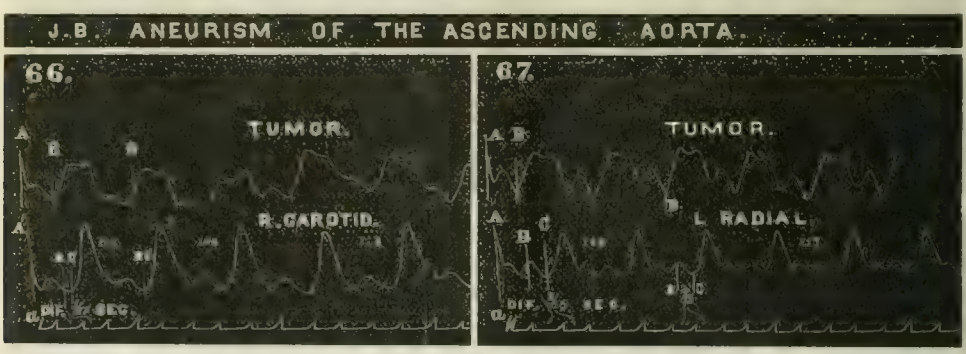
The sphygmographic records in the present case demonstrate:

1. That innominate aneurism of large size, communicating with a dilated aorta, may exist without the pulse, beyond, either in form or time, affording any evidence whatever of the presence of such aneurism; witness the correctness and perfect equality in form and time of the two radials.

2. That the effect of such aneurism on the *form* of the pulse beyond, may be positive and marked; witness the great inequality in form of the two carotids.

3. That the effect of such aneurism on the *time* of the pulse may be negative as to delay; witness the time between the heart and tumor, between the heart and radials, and the perfect equality in the time registry of the two radials, the two subclavians, and the two carotids.

In this case, also, the demonstration is complete, that the pulse-form was correct in the right radial, because of the free passage to the subclavian, and imperfect in the right carotid because of the obstructed passage to this artery. Hence the question arises whether the peculiar pulse-deformation, observed below some aneurisms, does not always depend upon arterial obstruction from filling of the lumen, or pressure of the tumor, or both. The question is one of importance.



The two following cases will aid our investigation. They were in the Cincinnati Hospital, and kindly placed at my disposal for sphygmographic study. The notes were derived from the records and personal observation:

Case II. *Aneurism of the Ascending Aorta.*—J. Bradford, aged 31 years; suffers from dyspnœa. Presents a prominent pulsating tumor a little to the left of the median line, and two and a half inches above the nipple. The tumor manifests thrill to the touch and murmur to the ear; the latter synchronous with the first sound of the heart, and heard over a considerable area. Tracings taken in August, 1877. Patient afterwards found his way into St. Mary's Hospital, where he died. The autopsy revealed a large aneurismal tumor, involving the ascending aorta

from near the innominate downwards, to near the origin, and extending from the upper border of the second to near the fourth rib; sternum eroded. On section, the walls for the most part were reinforced by thick layers of fibrin; although a number of accessory sacs presented with thin walls, one of which had ruptured into the right pleural cavity and proved the immediate cause of death. The left ventricle was somewhat enlarged and turned posteriorly.

Inscriptions of the heart's apex could not be obtained on account of its recedence from the chest-wall, therefore observations were limited to the tumor and arteries.

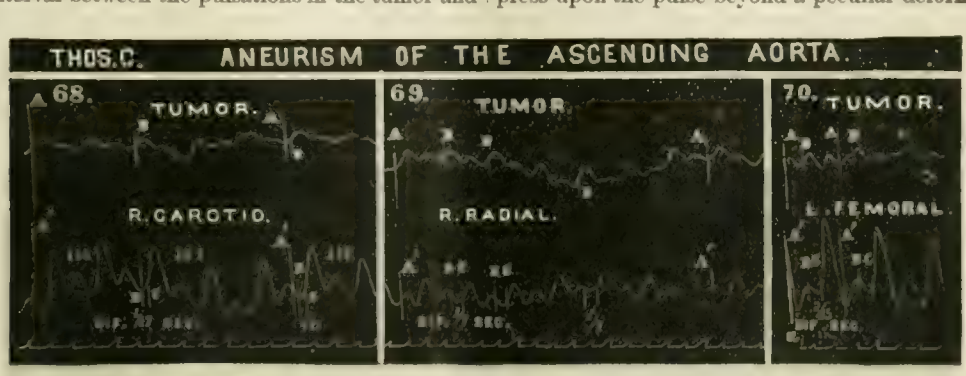
No. 66 shows simultaneous tracings of the tumor and right carotid; No. 67 shows the same of the tumor and left radial. The pulse acceleration, 108–113, the dicrotism and low pressure will be noticed; also the characteristics of the tumor traces. The deviation in the lower part of the up-stroke, sufficiently indicated in the tumor and carotid traces, but less distinct in the radial, probably marks in this case, as in the first, the beginning of the true pulse-wave, sent from the heart. The preceding lowest point, however, is more definite, and representing, as it unquestionably does, the same stage of the respective pulsations, is more certain and available for measurement. The interval between the pulsations in the tumor and carotid measures, as shown, $\frac{1}{7}$ of a second; and that between the tumor and radial, $\frac{1}{8}$ of a second. If no cause of delay existed the pulse-wave would pass over the distance represented by the tumor and carotid in $\frac{1}{35}$ of a second at the longest, and over the distance represented by the tumor and radial in $\frac{1}{70}$ of a second at the longest. The reason of the apparent greater delay of the carotid pulse compared with the radial is that the retardation takes place in the aneurism, and the pulse-wave reaching the free artery beyond, travels on with its accustomed velocity. In form, both the carotid and radial present the usual features of accelerated, moderately ample, and low-tension pulses.

The aneurism commenced very near the aortic orifice, which latter was considerably dilated, and involved the ascending portion of the vessel, which was expanded into a large flabby sac.

My observations were made January 31st. Nos. 68, 69, and 70 are reproductions of the graphic records. The pulsations of the aneurism were taken at the fourth right interspace, but they were too feeble to produce good traces. However, the basal points are fairly discernible. The heart's pulsations could not be traced.

In the measurements, wherever there might be uncertainty as to the position of the basal points, those were selected which would afford the shortest interval; so if any error of representation exist, it is in making the time differences shorter than the true ones. As shown, the tumor-carotid and tumor-radial intervals, respectively, are closely the same as in the preceding case. The tumor-femoral interval also shows prolongation, and that it is in proper relationship to the tumor-radial interval. The pulse frequency is 127–130, and the pulse-form reflects only a very common type.

Respecting the form of the pulse, these two latter cases support the first in opposing the idea that aneurisms, independent of arterial obstruction, impress upon the pulse beyond a peculiar deformation;



Case III. *Aneurism of the Ascending Aorta.* - Thos. Conley, aged 30 years, has suffered between two and three years from trouble within the chest. Front of chest, especially to left of sternum, bulging, and flat on percussion. Pulsation seen and feebly felt over an unusual area, more distinct than elsewhere in the fourth right interspace near the sternum. Absence of thrill, usually no murmur, although a systolic one has at times been detected. Patient very feeble; radial pulse small and frequent; suffers greatly from pain, dyspnœa, and cough. Died suddenly the last of February, 1879. The post-mortem disclosed an extensive aneurism of the ascending aorta which had ruptured and discharged into the right pleural cavity.

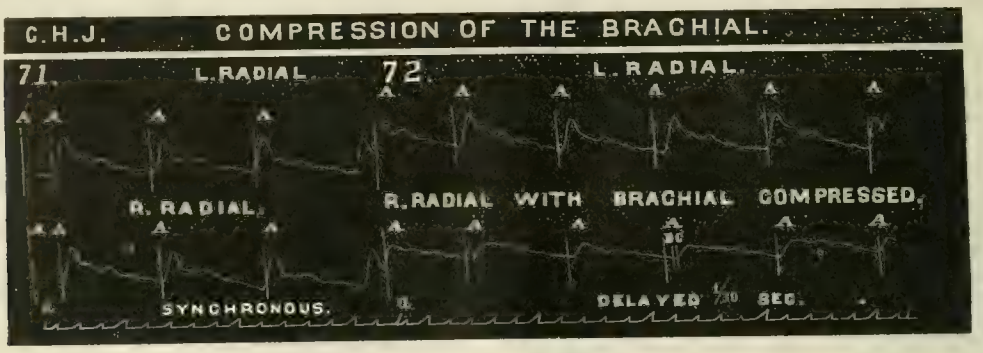
the pulse-forms in these cases being only such as often present in other conditions. It seems reasonable, however, that there should be a description of aneurism with free arterial ingress and egress, which would cause the pulse-form of the affected distal artery to differ from that of the opposite unaffected artery, and yet not to the extent of a typical deformation.

In point of delay, these cases accord with François Franck's; and delay of the pulse, as an effect of certain aneurisms, may be accepted as a demonstrated fact. Can we differentiate the aneurisms which produce pulse-delay from those which do not? Case I., in which there was no delay, presented an aneurism of large size, free arterial passages, and *resisting* walls; while Cases II. and III., in which there was delay, presented aneurisms of large size, free arterial passages, and *yielding* walls. The conclusion would follow that the opposite conditions of the aneurismal walls produced the difference observed in the time of the pulses. Observations are needed to determine whether a sacculated aneurism, communicating with the artery by a small opening, would cause delay of the distal pulse. It is conceivable that it would not. From what we have learned of the effect of large aneurisms on pulse-transmission, we are prepared to believe that small ones would cause no appreciable delay.

My own observations indicate that the pulse-retardation in aneurism is much less than that in valvular disease of the heart, and greater than that of any general condition of the vessels and circulation.

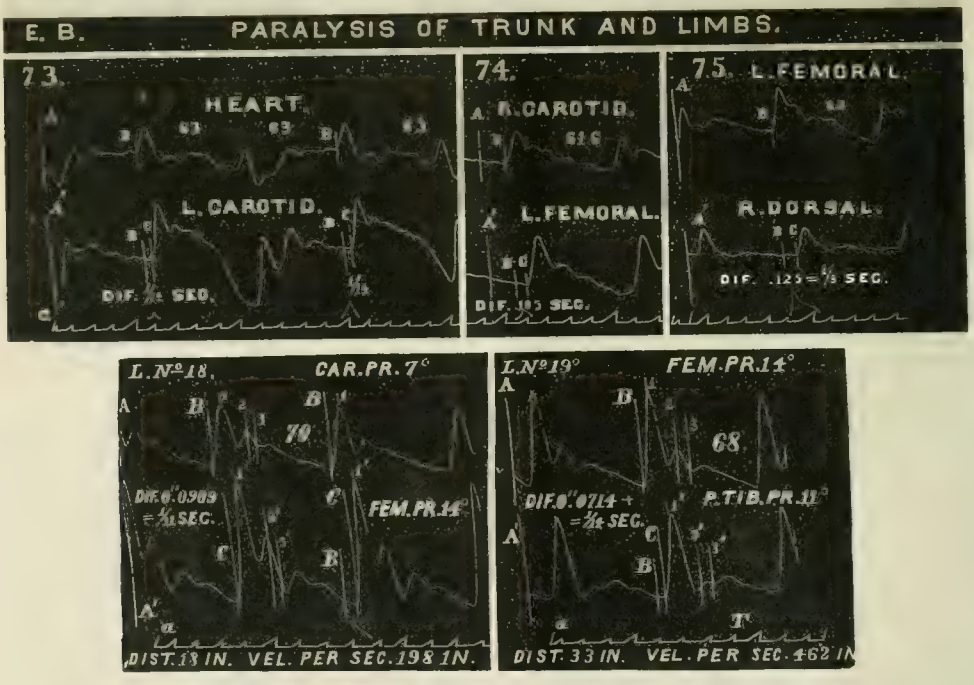
Are there any other conditions than aneurism affecting an artery that may produce retardation of its pulse-wave? Two are suspected—namely, arterial pulse of the obstructed artery notably behind the other in point of time. Nos. 71 and 72 give a fair representation of the results obtained.

The delay of the obstructed pulse compared with the other is about one-thirtieth ($\frac{1}{30}$) of a second, which would about double the usual delay of the radial on the brachial pulse. This demonstration,



obstruction, and the condition recognized as vaso-motor paralysis. These we will examine.

In Case I., cut No. 62, the right carotid pulse, although greatly reduced and deformed by arterial obstruction, shows no appreciable delay. Yet it must be considered, that if delay arise from obstruction, it will be more evident at a distance from the site of obstruction; and that a point of observation so near as in this case, could not be expected to show it, even if initiated. I have tested the effect of temporary compression of an artery on the velocity of its pulse-wave. Two healthy men were separately placed under experiment by first tracing their two radials simultaneously to prove them synchronous; and after compressing one brachial so as to leave the pulse just perceptible, tracing the radials again, and noting the time-relationship of the two pulses. These observations many times repeated showed the



however, is conclusive only as to the effect of temporary obstruction, and the query remains whether in permanent obstruction in which the artery would be contracted and adapted to the blood-stream, such retardation would occur. Data are wanting for the settlement of this point.

In one of François Franck's cases of innominate aneurism, the sphygmographic tracings show the right radial pulse fuller and better developed than the left, and the temperature was elevated 1° F. on the right side. These phenomena were attributed to vaso-motor paralysis, produced by pressure of the tumor on the first thoracic ganglion of the sympathetic. The influence of vaso-motor paralysis on pulse-wave velocity is an interesting question which presents for investigation.

The view has been advanced that the peripheral vascular dilatation and consequent easy flow of blood

in the extremity, due to the vaso-motor paralysis, tend to accelerate the pulse-wave velocity. The view is entirely unsupported, and the specious *prima facie* is disposed of by the consideration that the pulse-wave is distinct from the blood-stream, and that the velocity of the pulse-wave is so much greater than the velocity of the blood-current, that even if variations of the latter exerted their quantum of influence on the former, the effect would be inappreciable.

The opposite view—namely, that the pulse-wave is retarded under the conditions of vaso-motor paralysis, is supported by all the facts brought to light which have any bearing on the question. First, there is the accepted law in physics, that wave-impulses, communicated to a liquid flowing through a tube, are transmitted with a velocity proportioned directly to the rigidity of the tube. Under paralysis of the muscular coat, the artery becomes lax and yielding, and in obedience to the law just stated, would transmit the pulse-wave with diminished speed. Second, the arteries become more rigid with advances of age, and ample observation proves the rule that the velocity of the pulse-wave increases with age. Third, in low-toned arteries, evinced by low-pressure, high-sweep, and dicrotic pulse-traces, it has been observed that the pulse-wave travels slower than in high-toned arteries, evinced by high-pressure, low-sweep, and non-dicrotic pulse-traces; and, especially, in the marked arterial relaxation of adynamic conditions, the pulse-wave velocity has been found reduced. Moreover, as bearing directly upon the question at issue, I am enabled to present the following case and experimental results:

Ernest B——, aged 34 years, fell from a building, striking heavily the back of his neck and head against the ground. He retained his consciousness and power of speech, but suffered paralysis of voluntary motion and sensation of all parts below the neck. The next day imperfect motion, without co-ordination, and imperfect sensation returned to the upper extremities; this apparent improvement, however, was soon lost, and the case again presented the spectacle of complete paralysis of the entire body below the neck. The respiration was labored; heart's action apparently normal; pulse 60 to 80, full and regular; temperature ranging from 102° to 105°F. When the temperature marked 105 the pulse was full and not above 80. The man died on the fifth day after the receipt of the injury. The day before his death, by the kindness of Dr. A. B. Isham, whose patient he was, and to whom I am indebted for the above notes, I was given the opportunity to make sphygmographic observations in the case. The respiration was then very labored, temperature 102½°, pulse averaging 62, full and regular, as shown in the tracings. (See 73, 74, and 75). The tracings, especially the left carotid, are thrown out of horizontal line by the action of the respiration; they are also somewhat defective from extraneous causes; yet the basal points are correctly traced and the successions are truly measured and expressed.

In this case the phenomena of vaso-motor paralysis were fairly declared, and the manifestations of pulse-wave velocity under the conditions are eagerly looked for. The interval between the right carotid and left femoral is .105 second, that between the left femoral and right dorsalis pedis is .125 second; the sum of which intervals gives .23 second as the time-difference of the pulse-wave between the carotid and dorsalis pedis. This is as slow a transmission of the pulse-wave as I have ever observed in unobstructed and non-aneurismal arteries of adults. The young man L.,* whose pulse-wave velocity was exceptionally slow, gave .0909 second for the carotid-femoral, and .0714 second for the femoral posterior tibial. (See Nos. 18 and 19 here reproduced), the sum being .1623 second for the carotid-posterior tibial interval. So the retardation of the dorsalis pedis pulse on the carotid in the paralytic case was about one-third longer than that of the posterior tibial pulse on the carotid, in the case of L. These facts and considerations would seem to leave little room to doubt that the pulse-wave is retarded in its passage through an artery whose muscular coat is paralyzed.

From this study of the sphygmographic indications in aneurism, the following estimate of their diagnostic value seems fairly justified:

1. *Deformation* of the pulse beyond a suspected aneurism is of little, if any, value as indicating the presence of aneurism, but indicates rather the presence of arterial obstruction which may originate from other conditions, as well as from aneurism. Absence of such deformation is no evidence of absence of aneurism.

2. *Delay* of the pulse beyond a suspected aneurism is strong evidence of the presence of aneurism; and when arterial obstruction and vaso-motor paralysis can be eliminated, the sign is conclusive of aneurism. Absence of such delay is of no value as indicating the absence of aneurism.

3. In aneurism, already diagnosed deformation of the distal pulse indicates the presence of concomitant arterial obstruction.

4. In aneurism, already diagnosed delay of the free distal pulse indicates one with free communications, large cavity, and yielding walls; while absence of pulse-delay indicates one with narrow orifice, or small cavity, or resisting walls.

SUPRA-CONDYLOID AMPUTATION OF THE THIGH.

By M. A. RHOADS, M.D.,

SURGEON TO THE BERKS COUNTY ALMSHOUSE HOSPITAL, AND TO ST. JOSEPH'S HOSPITAL, READING, PA.

In the MEDICAL RECORD of April 12, 1879, is published an article on the above subject by Robert F. Weir, M.D., in reference to the general favor with which amputations at the knee-joint are at present regarded. I cordially indorse every word of that article, and herewith present a condensed report of a case operated on a short time ago.

Albert Howe, twenty-three years of age, a laborer, while under the influence of liquor on the night of September 4, 1879, was knocked down and run over by a rapidly-moving railroad train. No less than fifteen heavily loaded freight-cars passed over his right leg, crushing it between the ankle and knee to a perfect jelly. After considerable delay he was brought to St. Joseph's Hospital, exsanguinated, and reacting very slowly. After reaction was sufficiently established, I proceeded to operate, being assisted by two members of the hospital staff. The injury extended diagonally across the leg, from the ankle upward to the front of the knee. On account of the peculiar nature of the injury, it was impossible to adhere to the established rule of a long anterior and a short posterior flap. I thereupon reversed the procedure by making a short anterior and a long posterior flap. After shaping the anterior flap, I divided

* New York Med. Journal, Feb., 1878, p. 134. Cincinnati Clinic, April 13, 1878.

the ligamentum patellæ, disarticulated at the knee, and lastly, shaped the posterior flap, cutting from within outward. I next sawed off the femoral condyles half an inch above their articulating surfaces, and deprived the patella in the same manner of its articulating surface, including both the outer and inner facet. After several ineffectual attempts to bring down the patella, I divided the tendon of the quadriceps extensor, which enabled me to adjust the parts with the greatest facility. The popliteal and a small muscular branch were the only arteries which required the ligature. Common silk ligature was used. The soft parts were then carefully adjusted and the flaps stitched together with silk suture. Proper measures were adopted for the purpose of securing free drainage, and the limb placed in an easy, slightly elevated position. Anodynes and water-dressings constituted the treatment for the first forty-eight hours. At the expiration of that time the soiled dressings were removed, when it was first discovered that a patch of bruised skin was included in the posterior flap, and which showed a disposition to slough. This patch of bruised integument, which was not noticed at the time of the operation (the operation being done at midnight), occupied the central margin of the posterior flap, and covered a surface of about one by two inches. Vigorous poulticing brought about a speedy separation of the slough. While the sloughing was going on, the patient exhibited symptoms of pyæmia, and for about two days it was extremely doubtful if he would recover. But under the use of the tincture of the chloride of iron and quinine, along with stimulants and a liberal diet, faithfully and perseveringly administered, the unfavorable symptoms rapidly disappeared. The wound healed nicely by granulation, making a good solid stump. There is firm and perfect union of patella and femur, and apart from a little tenderness in the line of the cicatrix, the stump is capable of bearing considerable pressure, notwithstanding that it is only a little over two months since the operation. There was no attempt at antiseptic treatment. But there was careful personal attention to every detail in the after-treatment. Perfect rest of mind and body was enjoined. The limb was handled in the most delicate manner. Free drainage was effected, and the parts were kept scrupulously clean.

Reports of Hospitals.

THE PRESTON RETREAT, PHILADELPHIA.

SERVICE OF WILLIAM GOODELL, M.D.

(Reported for THE MEDICAL RECORD.)

LACERATION OF THE PERINEUM.

DR. GOODELL advises the immediate operation, which he has found to be very successful in incomplete lacerations. In complete lacerations it is not as successful as the secondary operation. In the primary operation, in order to put in the stitches accurately, Dr. Goodell recommends that ether be given, and that a sponge be placed high up in the vagina to stop the flow of the lochia, which embarrasses the operator. The stitches are applied as in the secondary operation, and merely twisted together. In the secondary operation, if the sphincter ani is involved, he always embeds the first two stitches. On the eighth day all the stitches are removed, except the lowest. The fæces are then softened by an injection of warm sweet-oil, and the bowels are moved twelve hours later, by an ounce-dose of castor-oil, aided, if necessary, by an injection. After the bowels have been emptied, the remaining stitch is removed.

FUNGOUS VEGETATIONS OF THE ENDOMETRIUM.

In fungous vegetations he removes the unhealthy growth either by the dull or by the sharp curette, or, if the os is sufficiently patulous, by means of a small fenestrated polypus-forceps. The uterine cavity is then cleansed with a saturated tincture of iodine, provided the cervical canal is narrow. But when it gapes, Dr. Goodell prefers Monsel's solution. In the former condition he avoids the use of the iron, because it forms clots which cannot easily be expelled by the womb without giving rise to much pain. He deems the iron, however, the more efficacious treatment of the two.

VAGINITIS.

Non-specific and acute cases of vaginitis he treats by such hot and emollient injections as flaxseed, or slippery-elm bark tea, to which laudanum has been added; the solution which he usually employs contains laudanum f. ʒ ij. to Oij. of flaxseed. When the inflammation has subsided, vaginal suppositories, containing five grains of iodoform, are ordered twice or thrice daily. In the chronic forms of this complaint, suppositories of tannin, or of iodoform, or long tampons of absorbent cotton, are employed, which have been dipped in astringent solutions of acetate of lead and of zinc to which laudanum has been added.

CONICAL CERVIX.

This condition is treated either by forcible dilatation with a strong uterine dilator, or by lateral section with a hysterotome. If the cervix is sickle-shaped, he performs the section of the posterior lip. The subsequent treatment consists in such local applications as tend to keep the parts from closing up.

PROLAPSE OF BOTH OVARIES

is best managed by the knee-breast posture, and by the administration of such alteratives as tend to lessen the congestion of those organs. Among these he deems the best to be the chloride of ammonium in combination with the bichloride of mercury. Sometimes, however, large doses of the bromide act very happily. He considers this dislocation to be due in a great measure to the congestion of the sexual organs from the use of measures to prevent conception, or from masturbation. He finds that pessaries are rarely useful in this distressing condition. But, if any are employed, he considers Cutter's bulb to be the best. He regards this condition as a very frequently overlooked cause of many pelvic aches and pains, which are attributed very generally to the womb alone.

CLOSURE OF THE VULVA FOR VESICO-VAGINAL FISTULA.

In curable cases of vesico-vaginal fistula in which the urethra has been destroyed, he has twice succeeded in wholly relieving the patient. In one instance this was done by making an artificial recto-vaginal fistula, and in the other by leaving an already existing one intact and closing up the vulva. Whenever practicable he prefers, in this unfortunate condition, when the urethra is unimpaired, to close the vagina as high up as possible, so that the marital relations shall not be interfered with. If the

case be an uncomplicated one, he prefers the use of shot to twisting of the wire, because they form permanent adjusters of the wire and prevent eversion of the edges of the wound.

CARUNCLE OF THE URETHRA.

In timid women who refuse to submit to an operation, he either mummifies the growth with crystallized carbolic acid melted down by heat, or destroys it by applications of chromic acid made with the utmost care, by means of a match whittled down to a point. The excess of acid is afterward neutralized by means of injections of a strong solution of the bicarbonate of sodium. If an operation is permitted, he cuts off the growth with a pair of scissors curved on the flat, and sears the wound with a hot iron wire, or with Paquelin's *thermo-cautère*. He advises the use of an alcohol lamp for heating the wire, because, when an ordinary light is used, the impression upon the operator's retina, made by the bright flame, so obscures his vision that the wire grows cool before he can clearly see the point where the application is to be made. He hastens the healing of the cauterized surface by occasional applications of carbolic acid, or by dusting it with iodoform.

CANCER OF THE CERVIX.

Whenever practicable, the whole cervix is removed by either the hot or the cold wire. If this cannot be done, he removes the malignant growth by scraping or by means of the gouge-forceps, and the surface is subsequently charred with the thermo-cautery. This radical treatment is reinforced by subsequent applications of the ethylate of sodium. In these operations upon the cervix Dr. Goodell finds that injections of ordinary vinegar form an excellent means of controlling any embarrassing bleeding. By these means he has succeeded in *curing* several cases.

CYSTITIS IN THE FEMALE.

Transient cystitis, dependent upon obscure causes, is treated by rectal suppositories containing one grain each of the aqueous extract of opium and of the extract of belladonna. Hysterical cases generally yield to "massage" and electricity. In obstinate cases, Dr. Goodell warmly advocates the dilatation of the urethra throughout its whole extent by the introduction of the forefinger. In the therapeutical treatment of this troublesome disorder atropia is the most efficient remedy, and it may be combined with alkalies or acids, according to the condition of the urine. Injections of a two-grain solution of quinia into the bladder, together with large doses of the same by the mouth, will often improve the condition of the patient. In very bad cases, perhaps the most efficient injection is one of the nitrate of silver, beginning with weak solutions and increasing their strength daily until twenty grains to the ounce solutions are tolerated. These strong solutions should not be allowed to remain in the bladder longer than ten or fifteen seconds. All malpositions of the womb must, of course, be rectified, especially if they have any bearing on the disease.

OVARIOTOMY.

In six cases of ovariotomy performed within the past nine months, with but one death, the following procedure was invariably adopted. A five per cent. solution of carbolic acid was used in the spray, and all instruments and sponges were immersed in a solution of the same strength. The pedicle was treated by the intra-peritoneal method, being transfixed, tied, and dropped within the abdominal cavity. The peritoneum was invariably included in the stitches which closed the abdominal wound. All obstinate bleeding points were tied with gut ligature, but the pedicle itself was secured by fine carbolized silk. In three cases where the adhesions were numerous, the glass drainage-tube was employed. The dressing consisted merely of salicylated cotton held in place by adhesive strips, the whole being secured by an elastic flannel binder. Dr. Goodell prefers the above dry application to Professor Lister's wet dressing. The after-treatment consisted in opium enough to allay pain, and in one tablespoonful of milk combined with lime-water given every three hours for the first forty-eight hours. As soon as flatulence escaped from the bowel the supply of food was increased. The patients were prepared for the operation by a soap-bath on the previous evening, and by the administration of one grain of opium at bedtime. On the following morning one grain of opium and ten grains of quinia were given. Dr. Goodell always operated at eleven o'clock in the morning, as being the time when the vital forces are at their best. When high temperature ensued, it was reduced by the application of an ice-cap, which was found to be an efficient means of lowering bodily heat.

PUERPERAL FEVER

is invariably treated by intra-uterine injections of a warm two per cent. solution of carbolic acid. Ten-grain doses of quinia are given every four hours until marked cinchonism is produced. Morphia is administered in doses sufficiently large and as frequently as necessary to relieve pain. The whole surface of the abdomen is painted with the compound tincture of iodine, and covered with a large mush-poultice. If it is deemed necessary to open the bowels, large doses of calomel are used.

SORE NIPPLES.

Chapped nipples are treated either by the glycerole of the nitrate of lead in a solution containing from twenty grains to one drachm to the ounce, or by a mixture of two drachms of iodoform to the ounce of balsam of Peru. The balsam is used because it disguises the smell of the iodoform.

GATHERED BREASTS.

When an abscess forms in the mammary glands, an early incision is practised. If the pus lies deep or is lodged behind the gland, a cutaneous incision is first made, a grooved director is then pushed into the abscess, and the opening is enlarged by the uterine dilator. The breast is then tightly strapped with adhesive plaster, and treated by a dry compress of oakum. Should the abscess show symptoms of becoming chronic, its walls are overdistended by an injection of a three per cent. solution of carbolic acid. This overstretching is practised so that the acid may reach every nook and cranny of the purulent cavity.

THE TREATMENT OF THE FUNIS.

As soon as the child cries lustily the cord is cut, and, the umbilical portion being firmly held by the thumb and forefinger, the free end is "stripped" of Wharton's jelly and of any blood that may remain in it. Any blisters of Wharton's jelly which still remain are emptied by this process of "stripping," are nicked, and their contents squeezed out. After the removal of the pressure of the thumb and forefinger all bleeding usually ceases, and then the cord is tied. No subsequent dressing is thereafter used, for the cord rapidly dries without smell and drops off without leaving a sore behind.

VAGINISMUS.

Dr. Goodell has never yet been compelled to resort to the deep, posterior incision of Dr. Sims, although in two cases he was obliged to snip off irritable carunculæ myrtiformes. He treats this disease precisely as he would treat an anal fissure. If the local spasm does not yield to constitutional treatment and to vaginal suppositories of morphia, belladonna, carbolic acid, and iodoform, he puts the woman under ether, and forcibly stretches the vulvo-vaginal opening either by means of the two thumbs, or by the fore and middle fingers of each hand.

NOTES ON CONGENITAL SYPHILIS.

Congenital syphilis appears either before or after birth. The labor is usually premature, and the first symptom of the disease is the hoarse cry to which the child gives utterance. The bullæ soon show themselves. The disease in utero takes the form of placentitis, the exudation presses the blood out of the small capillaries, and so gradually starves the product of conception; or there may be a gummy tumor or fatty degeneration of the placenta, so causing premature labor. In some cases the labor is precipitated by atheroma of the cord.

He explains the hoarse cry, above referred to, by the presence of syphilitic ulcers on the mucous membrane of the child's throat and air-tubes. Such children are always puny and sickly-looking. The bullæ appear in the coarse of a few hours after birth, and are first visible on either the scrotum, hands, or feet.

If the disease is not already in existence at birth, it usually begins some time between the second week and third month after birth. The child cries a great deal at night. This cry, which is occasioned by the incipient bone-disease, is muffled and hoarse. Another symptom is the snuffles: the child's nose is all stopped up, and then a scalding coryza comes on. Then the child grows wizened and thin, and its skin lies in rolls and wrinkles. The so-called *copper maculæ* appear, or the complexion gradually assumes a coffee-and-milk hue. Then the eruption comes out all over the body and stamps the case indisputably as one of syphilis.

FISSURE OF THE RECTUM.

Dr. Goodell treats fissures in two ways, viz.: 1st, by cutting through the adjacent muscular fibres; and 2d, by overstretching the sphincter ani muscle. He much prefers the second method. To do this he inserts his two thumbs into the rectum, and pulls them apart until the sphincter begins to yield or he feels the rami of the ischia on each side. To do this requires the exercise of considerable force.

HÆMATOMA OF DOUGLAS'S POUCH.

The patient is kept absolutely quiet, and astringent drinks, such as sulphuric acid, lemonade, etc., administered. Opium enough is given to lull the pain and keep the patient thoroughly quiet. For a number of hours following the attack but very little food is given. Stimulants are avoided. Occasionally the vagina is packed with ice.

HABITUAL CONSTIPATION.

The following prescription is a very favorite one with Dr. Goodell:

℞. Ext. colocynth. comp. ..... gr. ij.
Pulv. rhei. ..... gr. j.
Ext. belladonna ..... gr. ¼.
Ext. hyoscyami ..... gr. ss.

M. divide in pil. No. 1.
S. To be taken at bedtime.

In some cases $\frac{1}{16}$ of a grain of strychnia is added with profit to the foregoing. In most cases "*massage*" is employed with the very best results.

PERIMETRITIS.

Dr. Goodell has the patient put to bed, and kept quiet. Flying blisters are then applied locally over the abdomen. A series of these blisters are used. Together with this local treatment, $\frac{1}{24}$ of a grain of the bichloride of mercury, with ten grains of the muriate of ammonia, is given thrice daily in the mist. glycyrrhizæ comp.

The following mixture is also often used:

℞. Hydrarg. chlo. corros. ..... gr. j.
Liq. chlo. arsenitis ..... f ʒ ss.
Mist. ferri chlo.,
Acid. muriat. dil. ..... āā f ʒ ij.
Syrupi ..... f ʒ iij.
Aquæ ..... q. s. ad f ℥ vj.

M.
S. One tablespoonful after each meal.

THE DIAGNOSIS OF OVARIAN CYST.

Dr. Goodell distinguishes ovarian cyst from dropsy in the following manner: In a case of ascites the abdomen, when the patient is placed on her back, is flat on top, and bulges out at the sides. In ovarian cyst the very opposite is true. In ascites the intestines float up to the top, and resonance is elicited upon percussion. In ovarian cyst percussion gives only flatness.

There is one certain way of settling the question of the existence or non-existence of ovarian cysts, and that is by means of the aspirator. The fluid of ascites is straw-colored and limpid; that of a monocyst is perfectly clear and limpid, like spring-water; that of a polycyst is thick, dark, and turbid, from disintegrated red blood-corpuscles; that of an oligocyst is usually of a milk-and-water or of a light brown color. The discovery of the Drysdale ovarian cells in an aspirated fluid is proof positive of its origin.

MISCELLANEA.

Dr. Goodell frequently employs the following: (1) A modification of Basham's mixture.

℞. Tinc. ferri chlor. ..... f ʒ iij.
Acid. acet. dil. ..... f ʒ ss.
Liq. ammon. acet. ..... f ℥ iijss.
Curaçoæ,
Syrup. ..... āā f ʒ j.
Aquæ ..... q. s. ad f ℥ viij.

M. S. One tablespoonful after meals.
And:

℞. Tinct. ferri chlor. ..... f ʒ ij.
Acid phos. dil. ..... f ʒ iij.
Spts. limonis. ..... f ʒ j.
Syrupi ..... f ʒ ijss.
Aquæ ..... q. s. ad f ℥ vj.

M. S. A tablespoonful after each meal.

WOMEN AS DRUGGISTS.—At the last meeting of the Council of the London Pharmaceutical Society, two ladies, who had previously passed examinations as pharmaceutical chemists, were elected members of the Pharmaceutical Society with but one dissenting vote. The question of the admission of women had for some years been discussed before this Society, but was always voted upon unfavorably.

Progress of Medical Science.

METALLOTHERAPY IN HYSTERIA — REPORTED CURE OF A CASE BY ZINC. The following instance is worthy of note as bearing upon a question which is now exciting discussion among neurologists. Dr. Moricourt reports a case of hysteria in a girl eleven years of age, in which, after the failure of other methods of treatment, he had recourse to metallotherapy with the most satisfactory results. Copper, gold, and tin were applied successively without appreciable result; but zinc produced, in a few minutes, sensations of titillation and heat under and around the metal, followed by a notable augmentation of sensibility and muscular power. The oxide of zinc was then prescribed internally, two pills containing three-fourths of a grain each being given daily, and in a few days the convulsive attacks disappeared. They returned again two weeks later, after the treatment had been discontinued for four days, but disappeared once more as soon as the use of the pills was resumed. A month later the patient began to suffer from gastralgia; the dose of zinc was doubled, and frictions to the epigastrium with zinc ointment were ordered, and in a few days the gastralgia was cured. Shortly after this the patient received a severe fright, which was followed by contraction of the limbs and loss of the power to walk. The use of the pills was continued, and the daily application of zinc armatures to the legs and thighs ordered. The contracture yielded readily, and in a week the patient was able to walk a long distance, but she began again to have hysterical attacks and gastralgia. Investigation showed that the armatures used had been, by mistake, made of four metals—copper, iron, zinc, and tin; plain zinc bands were substituted for them and the patient had no more hysterical attacks. The gastralgia, however, yielded more slowly. The armatures produced sensations of pricking and burning, and left red marks which were visible for twenty-four hours. Treatment was continued for about six months, when the cure seemed to be permanent. The parents suspended the treatment several times, contrary to orders, because they thought the child was cured, but were compelled to resume it again in a few days by a return of the symptoms.—*Gazette des Hôpitaux*, Sept. 9, 1879.

ON FATTY EMBOLISM AFTER INJURIES OF THE BONES. —M. Déjérine reports the results of a series of experiments on dogs, undertaken with a view to determine what injuries of bones are followed by fatty embolism of the lungs. His results differ from those of Flournoy and Hahn, as he did not succeed in producing fatty embolism, either by fractures of the skull, or by simple fractures of the extremities. The result sought for was only obtained in cases in which he irritated the bony marrow by the introduction of foreign bodies into the medullary cavity, and it varied very greatly in degree according to the nature of the foreign body employed. In one set of cases he used pieces of iron wire, which, acting simply as inert foreign bodies, excited only a moderate degree of inflammation, and the fatty embolism was so slight that it would have been entirely overlooked, if the lungs had not been subjected to careful microscopical examination. In other cases tents of laminaria were substituted for the iron wire, and the difference in the effects produced was most striking, the fatty embolism of the lungs being as marked as in several cases in men, in which it had been the principal, if not the sole cause of death. The fat-drops were present in abundance in the veins of the extremity operated on, and filled the capillaries of the lungs to such an extent, that those organs were almost entirely injected with fat. Dr. Déjérine was led to use laminaria by the comparative failure of the iron-wire experiments, and by the theory advanced by Chassaignac to account for the presence of oil-globules in the pus of osteomyelitis, viz.: that the bony marrow, when increased in volume by inflammation and compressed against the bony walls of the cavity, enters the vessels and appears on the surface of the bone. The laminaria swells after its introduction, compresses the marrow, and the same result is obtained as in inflammation. The conclusion drawn by Dr. Déjérine from his experiments is, that fatty embolism of the lungs does not follow indifferently all experimental injuries of bones, but that for its production it is necessary to place the animals under conditions similar to those following severe injuries of the bones in men.—*Gazette Médicale de Paris*, Sept. 13, 1879.

PREPARATION AND USES OF THE ALBUMINATE OF IRON. Prof. Donitz, of Tokio, speaks in the strongest terms of the value of the albuminate of iron in anæmic affections, which, in Japan, form an unusually large proportion of the maladies that come under the charge of a physician. He prepares it in the following way: the whites of one or two eggs are stirred briskly in 150 c.c. of water, and a solution of six drops of the liq. ferri. perchlor. to 30 c.c. of water is added very slowly, the mixture being constantly stirred. When the first drops of iron are added, a cloudiness appears, which, however, has mostly disappeared by the time all the iron has been added; the addition of a few drops of very dilute muriatic acid accelerates the clearing up of the mixture, but with proper care it is superfluous. Any large flakes of albumen which remain after the mixture of the two solutions, can be filtered off with comparative ease, as the albuminous fluid passes more readily through the filter after the addition of the iron. Water is then added to the filtered fluid until its volume is brought up to 150 c.c., when a tablespoonful of it will contain exactly half a drop of the liquor ferri. perchlor. When muriatic acid is used, great care is necessary, as a very slight excess is liable to cause the mixture to become cloudy at a subsequent period. This iron-albuminate can be dried and preserved in the form of powder, and when needed for use it is simply redissolved in water. During the last two years, Prof. Donitz has employed this preparation in a very large number of cases of anæmic affections, and has been thoroughly satisfied with the effects produced by it. He has found that it can be tolerated without difficulty by the weakest stomachs, even when no other preparations of iron can be borne. Most of the cases in which he employed it were examples of simple anæmia due to badly prepared and insufficient food, but he has also found it particularly serviceable in the terrible disease called in Japan "kakke," and known in India under the name "beriberi." In this disease, which is still but imperfectly understood, the blood becomes very watery, and, in fact, the hydræmia constitutes the first tangible, pathological alteration. At first, Prof. Donitz administered the albuminate of iron internally in cases of this affection, but the results were not entirely satisfactory, as it proved useful only in mild cases and in convalescents; finally, however, he tried it hypodermically, and, thus employed, he found it all that could be desired. In

some cases, in which for the sake of experiment no other treatment was used, the daily excretion of urine increased in about a week from 150 c.c. to 900, and even 1,400 c.c. the œdema and serous transudations rapidly disappearing at the same time. The ordinary dose for hypodermic use in mild cases was four Pravaz syringefuls daily (about one drachm); these were usually injected in two different spots at the same time. In severe cases the dose was doubled, the above quantity being injected twice a day. An induration sometimes remained for several days at the point of injection, but no abscesses ever formed. Prof. Donitz tried a stronger preparation than the above, but soon gave it up, as he found it very much more difficult to prepare, while it did not seem to produce any better effects. A marked increase in the excretion of urine, which is one of the first signs of improvement in kakke, was usually observed on the third day after this treatment was begun. When used internally, the ordinary dose was a tablespoonful three times a day.—*Berliner klin. Wochen.*, Sept. 8, 1879.

Myxœdema.—At a recent meeting of the Clinical Society of London, nine cases of this curious disease were reported by various observers. It was first described, some years ago, by Sir William Gull (see Medical Record, Sept. 20, 1879), as a "cretinoid condition supervening on women in adult life," and subsequently by Dr. Ord, who called it myxœdema. Its chief pathological characteristic is a universal mucoid degeneration of the connective tissue of the body.

Upon post-mortem the body is found swollen; the various organs are not much affected. The microscope shows everywhere a great increase of connective tissue; the fibrillar element is more abundant, while the interstitial mucus-yielding element is still more increased in amount. The connective tissue looks like the sheath of the umbilical cord. These changes are best seen in the skin, glandular organs, and coats of the arteries. Their encroachment on other tissues and organs seems to be the cause of death.

The affection seems to be confined to married women between the ages of 30 and 50. No hereditary influence or special exciting cause has been given.

The symptoms are characteristic and the disease can be easily differentiated. The patient generally begins to swell and increase in size, the face has a puffy, anæmic look like that of Bright's disease, but there is no œdema, and rarely any albumen in the urine.

The movements become slow, the mind grows lethargic, and the perception dull; at times the patient has delusions, or becomes of sullen temper; the appetite is lessened, the bowels are often constipated.

The temperature is very low, toward the close of the disease falling to 92°, 90°, 88° F., and in one case even to 77° just before death. The course of the disease is chronic; it generally lasts ten or twelve years; but the patient gradually becomes more stupid and lethargic, and, though there may be an interval of improvement, death seems to be inevitable.

No satisfactory treatment has been discovered; iron and cod-liver oil have so far been oftenest given. —*Medical Press and Circ.*, Oct. 15, 1879.

Subcutaneous Osteotomy.—The subject of subcutaneous osteotomy, which has excited increased attention during the past five or six years (see Medical Record, Nov. 22d), was brought up before the surgical section at the last meeting of the British Medical Association, and elicited a number of valuable papers from prominent surgeons. The discussion was confined chiefly to the operation for genu valgum and anchylosis of the hip, for the cure of which affections it has been most often employed.

Subcutaneous osteotomy was first performed by Langenbeck in 1848, but it was soon adopted and extended by American surgeons. The operation was placed on a more definite basis by Mr. Wm. Adams, of London, who, in a series of cases, sawed through the neck of the femur within the capsule, and obtained excellent results. It soon appeared, however, that the procedure was only applicable in those cases, generally of rheumatic or pyæmic origin, where the head of the bone preserved its integrity. As a compliment to the Adams operation, therefore, Mr. Gant devised that of dividing the shaft of the femur below the trochanters. The operations of both Mr. Adams and Mr. Gant were done by making an incision with a narrow knife, and then withdrawing the knife and passing a saw along the track thus made.

In 1876, Dr. Ogston, of Edinburgh, applied the operation to the correction of genu valgum. Operating antiseptically, he pierced the knee-joint, split up the femur, and then detached the internal condyle. This operation, which has often been repeated by others, has now become an established success, and is reckoned among the triumphs of modern surgery. It has been greatly modified, however, and the question of the best way to operate subcutaneously for genu valgum is still unsettled. Thus, Mr. Lister makes a free incision over the internal condyle, and then makes a section or partial section of the lower end of the femur with a chisel and without entering the joint. This plan is essentially the one devised by Professor Macewen, of Glasgow, except that the latter makes a small incision, and only a partial section; the bone then is broken in straightening the limb.

Mr. B. E. Brodhurst does not believe that osteotomy is often called for in genu valgum, and denies that the internal condyle in this affection is often lengthened. His favorite plan is to divide the external lateral ligament and the biceps tendon.

Mr. Richard Barwell, who believes that in genu valgum there is curvature of the upper end of the tibia, as well as of the lower end of the femur, first partially divides, and then fractures the latter. In a few weeks he does the same thing to the tibia. He generally uses the Lister spray.

It appears from the papers presented that the following questions regarding subcutaneous osteotomy for genu valgum are not yet fully settled: 1. Which is the best plan? 2. What is the best instrument? 3. Whether the Lister spray be necessary? 4. At what age should the operation be performed? 5. In what cases will subcutaneous section of the tendons and ligaments be sufficient?

The facts given show: 1. That the operation is usually successful, whatever the method. 2. That incision into the knee-joint is not necessary for the success of the operation. 3. Authorities are against the practice of cutting the external condyle instead of the internal, and also against the necessity of cutting the fibula, as is sometimes done. 4. The chisel is the instrument generally used.

Dr. Maunsell, a prominent Dublin physician and medical writer, recently died at the age of seventy-four years.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 29, 1879.

THE EXPERT TESTIMONY IN THE HAYDEN TRIAL.

The trial of the Rev. Mr. Hayden for the murder of Mary Stannard has become a notable one in every respect. The circumstances surrounding the crime were mysterious, and no direct evidence in regard to the murderer could be obtained. The State, however, has spared no efforts or expense to throw light upon the matter, and for this purpose they have secured a great deal of expert testimony. Through such agency some entirely new contributions to forensic medicine have been obtained, as well as valuable testimony upon other allied matters.

To appreciate what has thus been done the facts in the case may be briefly recited. Somewhat over a year ago a young woman, named Mary Stannard, was found dead by the side of the road in Madison, Conn. One side of her throat was deeply cut, and there was a bruise on her head. The post-mortem examination discovered ninety grains of arsenic in her stomach, which viscus showed also signs of inflammation from the presence of the poison. A small cyst, about the size of a hickory-nut, was found growing in one of the ovaries.

From various suspicious circumstances the Rev. Mr. Hayden was arrested on the charge of having committed the murder. The girl had worked as a servant in his family at one time, and he was alleged to have had improper relations with her. The result, as claimed, was that she thought herself pregnant, that the accused shared in the belief, and hence the crime. The presence of the ovarian cyst, it was testified, might have caused symptoms of pregnancy.

It was also learned that about the time of the murder Mr. Hayden had bought some arsenic of the village druggist, and a package of arsenic was found in Hayden's barn. The defense asserted that this was the arsenic bought by Hayden, and that it had been intended for rats.

On the shirt which Hayden wore on the day of the murder, experts asserted there was a spot of blood. In the thumb-notch of the knife, and on a stone which lay near the place of the murder, a few more corpuscles were claimed to have been found.

The three points upon which the expert testimony chiefly bore were: the significance of the ovarian tumor; the distinguishing of the arsenic in the barn from that in the village drug store, and the identification of the blood-stains.

The question of the arsenic excited by far the most attention, and it was here that novel and original work was done. To discover the presence of arsenic is sufficiently easy, but here, in addition, it was attempted to trace each specimen of the mineral to the particular drug store where it was bought. Thus, if it could be proved that the arsenic which was found in the barn, and which Hayden claimed to have bought at a certain druggist's, was unlike that on hand at that druggist's, while the arsenic in Mary Stannard's stomach did resemble it, a very important evidence for the State would be established. The prosecution brought three experts who testified that the "barn" arsenic was unlike the druggist's arsenic, or at least unlike that of the wholesale dealer of whom the druggist purchased. It was testified, also, that the "stomach" arsenic was much like that in the drug shop. It was well established by these experts that specimens of arsenic varied according to the particular method of manufacture, and that packages from different sources could, as a rule, be distinguished. The points relied on for this are: the proportion of crystals to dust and broken fragments, the size of the crystals, the size of the broken fragments, and the scratching, or its absence, on the face of the crystals. In ordinary commercial white arsenic the proportion of crystals is about one-half. Of the specimens examined at the trial, the "barn" arsenic differed from the druggist's arsenic in the size and proportion of crystals as well as in the character of the fragments.

The evidence, on the whole, was pretty conclusive as to this point, that differences do exist in different specimens of arsenic, and that these differences will make it possible sometimes to trace the article to its original source. At the same time it is to be remembered that arsenic, having different microscopical appearances, may be sent out from the same manufactory; also that a mixture of the various samples of the drug is liable to occur in every retail druggist's establishment. These facts, established by the defence, will probably make it rare for this kind of evidence to carry great weight. Ordinary juries will hesitate to hang a man because the proportion of arsenical crystals is only one-fifth.

The testimony in regard to the blood-stains has also considerable interest. At the preliminary trial, a year ago, an expert testified that the stain on a cer-

tain stone was made by blood. At the later trial he admitted this to be a mistake, and said that the supposed stain was due to the presence of a low order of plant, whose spores resemble blood-corpuscles. Another expert testified that there were about fifteen blood-corpuscles on Hayden's knife, and that a small stain on the prisoner's shirt was also due to blood. The tests for blood, and the possibility of distinguishing human blood from that of other animals, were very freely discussed, the scientific expositions being occasionally varied by touches of personal animosity toward rival experts.

It is not more than two years ago that a high English authority, Dr. Francis Ogston, asserted that there was no single test for blood which was absolutely certain—referring, of course, to the detection of small amounts of dried blood. We are impressed with the march of science, therefore, when learned experts swear that fifteen blood-corpuscles have been found in the notch of a knife, and, further, that these are from human blood. Such assertions were made at the trial, and were based chiefly upon the microscope and the micrometer. We are not disposed to deny their validity. Within the last five years the study, particularly of the measurement of the blood-corpuscles, has received much attention, and there are undoubtedly a few persons who can, in most cases, distinguish human blood from that of other animals.

The testimony of the experts at the trial has, on the whole, been creditable to them. No scientific facts asserted by them have been impeached, although their application to the present case may have been weakened. The trial will be found to show, however, some of the weak points in our expert system. Thus, the prosecution sent out Dr. Dana for the purpose of learning facts which would enable it to prove a difference between the "barn" and the "stomach" arsenic. He found some such facts, and can scarcely be expected to be entirely free from bias or enthusiasm in applying them. The prosecution has also got its experts to testify on the other side. The expert testimony is not and can never be perfectly impartial under such arrangements.

The trial has been conducted with so much care and ability that we can have confidence that, whatever the verdict, it will be a just one; and, in any event, it has brought to light scientific facts which will undoubtedly be of help toward securing the ends of justice in the future, and will perhaps deter people a little from using arsenic, at least, to gratify their criminal impulses.

A RUSSIAN REMEDY FOR DIPHTHERIA.

The Minister of Russia to the United States has recently written a letter to the New York *Herald*, recommending to the American public the benzoate of soda for the treatment of diphtheria. This drug, he states, has been used with great success by a number of prominent Russian and German physicians, among whom are Professor Klebs, of Prague; Dr. Senator, of Cassel; Dr. Braham Braun, and Dr. Letzerich. The latter treated twenty-seven cases, eight of them being very malignant, with this medicine, and all recovered except one.

The remedy is given internally every two or three hours, and is also applied externally and used as a gargle.

It is rather strange that with so admirable a specific as this is claimed to be, the Russian government has been obliged to appoint a commission to investigate the epidemics of diphtheria which are ravaging the country with increased violence.

Similar remedies to the one suggested have already been used in diphtheria, and good results obtained; but nothing has ever received such universal endorsement as iron, chlorate of potash, and alcohol; nor is it likely that the eminent diplomatist's suggestion will produce any great change in the therapeutics of the disease. There have been dozens of drugs for which equally good results have been claimed; and, doubtless, Mr. Shishkin would have spoken more cautiously, or not at all, if he had made himself a little familiar with the history of specifics for diphtheria. His letter recommending benzoate of soda was doubtless written in a spirit of great benevolence; and, nevertheless, there is no particular good—indeed, there may be harm—in exciting hopes among the laity that a specific has been found. The doctor is expected at once to know about it and to cure his cases with it. It should be remembered, too, that medical journals exist wherever medicine exists, and that there is a constant interchange of views. No reliable discovery in medicine remains long without being published throughout the whole medical world.

The moral of this is, that Mr. Shishkin had better tend to his diplomacy, and let the doctors take care of diphtheria.

HOSPITAL SUNDAY.

Some time ago we advocated the plan of selecting a particular Sunday, and devoting all the contributions on that day to the hospitals. It was also advised that this should be supplemented by a hospital Saturday, so that all creeds and hospitals might receive the expected benefits. We are glad to announce that this plan has now been adopted. On the last Sunday of the year, and the Saturday preceding, collections will be made among churches, and also among individuals, for our local hospitals. The plan is comprehensive, and will not allow even those who prefer to stay at home, and praise the Lord at the domestic hearth, to escape the opportunity of charitable giving. Donors are to be allowed to signify which particular institution they wish their money to benefit. Those contributions which are left undesig-

nated will be placed in the hands of a committee, who will distribute them as their judgment dictates. The committee is composed this year of the Mayor, the President of the Chamber of Commerce, Postmaster James, Drs. Dix and Hall, and Messrs. H. E. Pellew, Cornelius Vanderbilt, and Robert Waller.

With the guaranty of such names, the success of the hospital Sunday plan is assured. It has for a long time been a popular and efficient method of raising money in London, and thus has the endorsement of past experience. Nearly all of our hospitals depend more or less upon charity, and concerted effort in their behalf will furnish to them much more relief. It will, in addition, attract the attention of the public to these institutions, and make their work and their wants more generally known. This is a consideration which alone will have much weight with those who wish well of the enterprise.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

It will be seen from our report of the recent meeting of this Association that the subject of yellow fever and of quarantine occupied their attention almost exclusively. The question of the exotic character of the disease was discussed at length. There is still, probably, a majority who believe in its always being imported; but the majority is smaller than it was last year, and the tide seems to be turning to the other side. There were no contributions to the clinical history or pathology of the disease. The value of quarantine was almost unanimously endorsed. The plan of adopting absolute non-intercourse found no defenders this year. Quarantine also was not claimed to be more than a useful auxiliary. The value of disinfectants during epidemics was not shown to be very great. In regard to prophylaxis, a general confidence was expressed in strict sanitary cleanliness to prevent the return of an epidemic. It was further claimed that if a case is notified early, the disease can, by prompt measures, be prevented from spreading.

We shall have occasion to comment upon the work of the Association more fully at another time.

NITRITE OF AMYL AS AN ANTIDOTE FOR CHLORAL.

The nitrite of amyl was recommended as an antidote for chloral by Dr. Coghill some time ago. A case illustrating its value for this purpose has been reported by Dr. Jas. McCullough, in the *Canada Lancet*. He was called to see an old lady one night, and found her pale, insensible, and almost pulseless. She had been taking chloral regularly as prescribed to her by a physician; but had, by accident or otherwise, taken an extremely large dose. Five drops of amyl were given her by inhalation; in a few minutes the extreme pallor gave place to a healthy glow, the respiration became deep, and the pulse fuller. She did not, however, regain consciousness, and in two hours became weak again. The amyl was repeated with the same beneficial results. After this, with the help of brandy, she completely recovered.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 22, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

THE PATHOLOGY OF YELLOW FEVER.

In accordance with a previous promise to the Society, Dr. E. C. SEGUIN exhibited a number of slides prepared by Dr. H. D. Schmidt, of New Orleans, illustrating the pathology of yellow fever. After referring to Dr. Schmidt's paper in a recent number of the *New York Medical Journal*, he stated that the gentleman had performed thirty complete autopsies of patients dying of yellow fever, and had found that the chief characteristic of the disease was an hyperæmic condition of all the internal organs, notably those of the central nervous system. In connection with this hyperæmia was noticed an effusion of blood-pigment along the course of the blood-vessels. Another important lesion was a fatty degeneration of the essential elements of the various organs. In the brain, for instance, there was an unnatural amount of granular matter. The latter condition was quite difficult to make out in the specimens exhibited, but Dr. Seguin had no doubt that it was present in a marked degree in the fresh specimens as examined by Dr. Schmidt. The same changes were noted in the tissue elements of the liver, spleen, kidney, and in several sections of the sympathetic. Dr. Seguin stated that Dr. Schmidt had examined the living subjects, with great care, and with a view of discovering bacteria, but in every instance the results were negative.

DR. T. E. SATTERTHWAITE then presented a number of microscopic slides prepared by Drs. W. H. Porter and A. M. Jacobus, illustrating the lesions in the case of yellow fever, which was described at the meeting of October 8th.

The following is the result of the post-mortem examination by Dr. W. H. Porter, the history of the case having been previously published:

Pericardium and heart.—The pericardium was normal and contained about half an ounce of clear straw-colored fluid. The heart-substance was soft, flabby, and slightly fatty. Valves free and normal; weight, ten ounces. The cavities of the heart contained fluid blood of a dusky-brown color, without coagula.

Pleuræ and lungs. Both lungs are pretty firmly attached to the chest-wall over a great part of their extent by adhesions of long standing; this condition was most marked on the right side. On section, both lungs were found congested and œdematous, but they exhibited no evidences of recent or old phthisis.

Spleen.—Soft and flabby; weight six ounces.

Kidneys.—Soft, congested, and yellowish-red in color. Weight of right, five ounces; of left, five and one-half ounces. Capsule normal in thickness and not adherent. Cortical markings a little wavy. In the pelves of the kidneys numerous bright red ecchymotic spots (such as are sometimes seen in acute scarlatinal nephritis).

On microscopic examination, the epithelium throughout the kidney was swollen and intensely granular. The tubes contained numerous small granular casts of a yellowish color. At the apices of the pyramids, the collecting tubes were nearly stripped of epithelium. The epithelium that remained was

intensely swollen, and even more granular than in other parts of the kidney. At several points the tubes, and in some cases the blood-vessels were blocked with numerous little bright bodies of a uniform size, arranged in a regular manner at equal distances from one another. They looked at first like spherical bacteria, but on close examination with high powers (immersions 1-10, W. Wales, and No. 12 Prazmowski), the bodies proved to be mostly, if not wholly, rod-bacteria of the usual kind. They took a deep purple color, with hæmatoxylin.

The interstitial tissue was unusually well-marked, but it was difficult to say whether the change was due to the imbibition of fluid or to a new growth of connective tissue.

Bladder.—The bladder was absolutely empty and gave no indications of inflammation, except near the urethral orifice.

Vagina, Uterus, and Ovaries.—Upon laying open the vagina, is was found to contain a dark, dirty-looking fluid resembling decomposing blood; on extending the incision into the uterine cavity more of this dirty fluid blood was met with; also quite a large mass of clotted blood and mucus occupied the body of the uterus. The ovaries appeared to be normal. The right contained a corpus luteum of menstruation, only a few days old—it was said that she commenced to menstruate two days before death.

Stomach and Alimentary Tract.—The stomach contained a considerable quantity of light-colored fluid, probably in large part the milk and brandy taken before death. The whole surface was slightly congested and overlaid with a soft coating of mucus, which, when brushed off, showed many little minute black points representing black vomit matter; these little black points seemed to be at the mouths of the follicles. On microscopic examination all the coats of the stomach appeared a little thickened, but most markedly the mucous or follicular coat. Some of the little points were seen under the microscope. The epithelia of the mucous and peptic glands were thought to be abnormally granular. At the mouth of the follicles the epithelium was frequently wanting, and in them was seen in places lymphoid corpuscles. There was neither congestion of the stomach, nor extravasation of blood. The connective tissue seemed increased in amount.

Liver.—The vessels in the transverse fissure were free; the gall-bladder was not distended. The liver tissue was of a deep yellow color and had a fatty look. It was also deeply jaundiced, evidently the "yellow liver" of "yellow jacket." Weight 100 ozs. On microscopic section, the liver was found to be in an advanced stage of fatty degeneration. The fat-globules were abundant about the central vessel, but were also quite numerous throughout the whole extent of an acinus, and seemed to have been developed at the expense of the liver-cells, so that the cell was converted into a fat-globule, presenting an appearance that is seen in the so-called fatty infiltration. The other liver-cells were more granular than normal, and it was with difficulty that any nuclei could be recognized. There was also a marked increase in the connective tissue of the organ, and in places the separate cells were surrounded by new-formed connective tissue, as has been observed in syphilitic cirrhosis. At several points in the sections collections of bright little bodies of uniform size were seen, arranged in a regular manner, just as in the kidney. They were bacteria, and seemed to be in the blood-vessels.

The brain and spinal cord were removed, but exhibited no lesions to the naked eye. Unfortunately, the fluid in which they were placed failed to preserve them.

It was stated by Dr. Satterthwaite that the presence of bacteria in the specimens could be explained in various ways, and he did not believe that it in any way sustained the notion that these organisms produced the disease. Accumulations of bacteria of similar appearance he had found in persons suffering from other diseases not contagious or infectious.

Dr. Amidon referred to a case of yellow fever which occurred at the New York Hospital in 1877. The patient came from Fernandina, and twenty-four hours after admission was seized with black vomit, dying soon after. The liver, stomach, spleen, and kidneys were the only organs examined microscopically; in each of them, except the stomach, the tissue-changes were similar to those described by Drs. Seguin and Satterthwaite. No changes were found in the gastric-mucous membrane, notwithstanding black vomit had existed. There were no evidences of hemorrhages, no particular congestion of the vessels, and no change in the gastric epithelium. In the kidneys very many of the tubuli were clogged with desquamated epithelium and pigmented granules. In the liver there was present fatty degeneration of the periphery of the acini.

REMOVAL OF GANGRENOUS LUNG.

Dr. Lange presented a portion of the gangrenous lung of a woman, aged forty years, who, shortly after her confinement, was attacked with empyema, accompanied with a temperature of 104°, and the expectoration of gangrenous material. Dr. L. saw the case in consultation, and performed thoracentesis in the ninth intercostal space. About a quart and a half of fluid was evacuated, after which a mass presented itself into the wound and was accordingly removed. This proved to be a portion of the gangrenous lung. At the time of reporting the case the woman was still in a very critical condition.

SYSTO-SARCOMA OF TESTICLE.

Dr. Lente presented a sarcoma of the testicle, which he removed by operation from a lad aged twenty years, and a resident of Newburg. The growth first showed itself about a year ago, and gradually increased, until it measured seventeen inches in circumference. A portion of the scrotum, which contained an abscess, was removed with the tumor. The patient made a good recovery. The tumor was composed of fibrinous and cartilaginous masses, and presented a very characteristic appearance of sarcoma.

Dr. Keyes referred to two similar cases in which he had operated several years age, and in which the disease had reappeared in the retro-peritoneal glands.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 6, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

The Academy was called to order at 8 P.M., and the minutes of the last stated meeting were read by the Secretary, Dr. H. T. Hanks.

The Librarian, Dr. Laurence Johnson, reported that since the last stated meeting 509 bound volumes, 158 unbound volumes, 442 pamphlets and medical journals, 11 maps, and 3 *fac-simile* letters had been donated to the library. The bound volumes included

those presented by Dr. Abram Dubois, and those donated at the last stated meeting by Dr. Purple.

The Corresponding Secretary, Dr. John G. Adams, made a report in which brief reference was made to the late George W. Callender, F.R.C.S., F.R.S., and

THE DEPARTMENT FOR DISEASES OF CHILDREN IN MT. SINAI HOSPITAL.

The paper for the evening was read by Dr. A. Jacobi, and consisted in a report, with epicritical remarks and specimens, of a series of interesting cases which had been under his observation in the department for diseases of children in the Mt. Sinai Hospital as *permanent* physician in the service. The service was originated in March, 1879, and although since the organization the number of patients had not been large, yet a fair proportion of the cases had been highly interesting. After giving the number of cases of general febrile diseases, diseases of the respiratory organs, diseases of digestive organs, of the nervous system, chronic diseases, such as syphilis and rachitis, diseases of the skin, and neoplasms, etc., he reported in detail several cases, the more important of which were the following:

Matilda W——, æt. 8 years; admitted March 30th. *Unilateral inflammation of the tonsils.* A rare affection, unless the result of local irritation. Usually not purely inflammatory, but infectious in character.

Victoria B——, æt. 12 years; admitted March 18th. *Adenitis; otitis media; enlarged spleen; chronic pneumonia; gastric catarrh; cardiac disorders; suppurating adenitis.* As a rule, diseases of childhood are simple and uncomplicated, and, for that reason, a correct diagnosis can be made with greater facility than in adults. In this respect the case was exceptional, and presented a number of complications which, as a rule, are seen only in adults.

Philip B——, æt. 10 years; admitted March 12th. *Endocarditis, articular rheumatism, and chorea minor* occurred simultaneously. The usual order is articular rheumatism, then rheumatic endocarditis, and after some time, chorea minor. In the rheumatism of infancy and childhood there are many cases in which diagnosis of endocarditis is made because of a murmur, and yet that murmur will disappear, sometimes, when the severity of the other symptoms subsides.

Typhoid fever. Most of the severe cases presented the characteristics of the average typhoid fever of infancy and childhood; the symptoms were irregular in character, and not very marked. In the case of Louis S——, æt. 9 years, and admitted June 24th, the anatomical conditions were exactly the same as we would expect to find in the adult. The general rule, however, holds good that subjective symptoms and some objective, particularly the high temperature, are not what one would be led to expect from consulting books alone. [See Medical Record, vol. xvi., Nos. 17 and 18.]

Dr. Jacobi presented a specimen in which there were marked ulcerations and perforation in the intestine, and yet the patient did not have any diarrhœa.

Thomas C——, æt. 3 years and 9 months. *Intracranial tumor.*

Lena H——, æt. 8 years; admitted March 10th. *Typhlitis; repeated attacks of peritonitis; recovery.* The child was discharged in July.

Mary C——, æt. 3 years; admitted May 28th. *Multiple congenital lipomata.* The tumors were situated in the lumbar region, the gluteal region, and the scapular region. That in the lumbar region was upon both sides of the spinal column, more to the left than to the right, and was five inches by four inches; the one in the scapular region was the smaller of the remaining two, and was two or three inches in diameter. An operation was performed for the removal of the largest tumor. The case, however, without fever, but with progressive emaciation and increasing hyperæmia, lingered until July 2d, and then terminated fatally.

Fannie C——, æt. 3 years; admitted September 4th. *Typhoid fever complicated by catalepsy.* In the course of the typhoid fever, whooping-cough developed. On the 23d of September it was hoped she was on the way to recovery, without further complication. On that day, however, the first slight spasm of the eyelids was noticed which preceded the development of well-marked catalepsy. On the 15th of October the child was convalescent.

Flora McD——, æt. 3 years; admitted March 6th. *Chronic inflammation of the knee-joint; free incision into the cavity and scraping out the granulations; operation and dressings done under Lister; carbolic acid and thymol; plaster-of-Paris splint; healing of the wound nearly complete, July 2d.*

At the close of Dr. Jacobi's report the President remarked as follows: The duty which those connected with hospitals and public institutions owe to the profession at large is one which, I think we must all agree, is very much neglected by many who hold these public appointments. Such positions, in connection with our hospitals, give large opportunities for observation and accumulation of experience which those in private practice do not have; consequently they are acquiring knowledge which should belong, in propriety, to the profession. While these appointments involve extra labor and care, they bear with them extra rewards, and the duties are of a kind the rewards of which all should acknowledge.

Another reason why the profession should have opportunity to become more familiar with hospital practice by the aid of reports, such as that to which we have listened this evening is, that there is an immense amount of medical knowledge which, from the very force and nature of the circumstances, cannot appear in medical works. Much can be done to fill this missing page by those who are brought into personal contact with hospital practice, as illustrated by the labors of Charcot, Trousseau, Louis, Graves, Stokes, and many others, who acquired a vast deal of knowledge with regard to methods of physical diagnosis, with regard to modes of operating and skill in the application of therapeutics, which has never been transmitted through the writings of such men, and which never could be transmitted, and which were only known either through personal contact, or through tradition.

It is the province of such an association as this to supply that want; and it is its province to bring out all that kind of knowledge, as far as it is possible to do so, which is not otherwise set forth in systematic treatises and medical works.

I will ask the Academy to pardon me for making one more remark, and that is, that diseases of children occupy a large part of the time of general practitioners, and they constitute a class of affections which are of very great importance. I might point out a great many reasons why they deserve much more special study and care and attention than they now receive.

In the first place, the seed of hereditary disease is first developed in childhood, and here, if ever, are such diseases to be met successfully, and, if possible, obliterated; for in after-life it is too late, as a rule, to deal with them for their eradication.

In the second place, the development of those diseases is simple in character, unmodified by previous habits, by former disease, or by former treatment; consequently, they constitute a class which possesses more than usual interest.

It is, therefore, with great pleasure and pride that I feel we have been the means of bringing out the information we have received this evening. I had made preparations to have a full debate at this time, but my impression is that the paper should be first printed, and then carefully studied, and when that is done, the cases and the highly scientific remarks upon them may give rise to a valuable and interesting discussion, and one which will do the Academy great credit.

On motion, the discussion was postponed until an evening should be assigned by the President.

The President then announced the reception, through Dr. Ellsworth Eliot, of $25 from a friend of the Academy, to be expended in the purchase of books, and the Academy then adjourned.

AMERICAN PUBLIC HEALTH ASSOCIATION.

Seventh Annual Meeting at Nashville, Tennessee, November 18–21, 1879.

(Special Report for THE MEDICAL RECORD.)

FIRST DAY—WEDNESDAY, NOVEMBER 18TH.

THE American Public Health Association met at 12.30 P.M., in the Hall of the House of Representatives. About two hundred members were present. President J. L. Cabell, M.D., in the chair.

A NATIONAL MEDICAL LIBRARY.

After an opening prayer, and an announcement of the names of the members present, the committee appointed a year ago to memorialize Congress in regard to the publication of the index catalogue of the National Medical Library, made its report. Dr. R. W. Mitchell, its Chairman, stated that, at the last meeting of Congress, $20,000 had been appropriated for printing and binding the first two volumes of this work. As the complete work would embrace ten or twelve volumes, however, it was necessary that further appropriations be made, and it was advised that the committee be continued.

In connection with the report, Dr. J. S. Billings stated that the Army Medical Library was now the largest exclusively medical library in the world, embracing 50,000 volumes, and as many pamphlets.

At the close of the report, a number of invitations from private and public citizens of Nashville were announced and acknowledged. It was voted that, in subsequent discussions, each member should be limited to ten minutes. Dr. E. M. Hunt, as Chairman of the Publication Committee, stated that the volume of the proceedings of the last annual meeting would soon be published.

COL. GEORGE E. WARING, of Newport, R. I., then read a paper on

THE DRAINAGE AND SEWERAGE OF CITIES.

Col. Waring referred to the expense and imperfections attending the present sewer system. As a remedy he proposed the following plan: There should be two systems of drainage in every city; one for carrying off the storm-water, the other to remove the excreta, etc., from the houses and other buildings. The storm-water should be carried off by superficial drains that can be easily cleaned. Even surface-drainage of storm-water might do. The sewers for house-drainage should have a minimum diameter of six inches, and they should not exceed that size until they had accumulated a sufficient flow, at the time of greatest use, to fill them half full. The upper end of each branch sewer should have a Field's tank for flushing it at regular periods. The house connections should be without traps, and there should be a continuous pipe leading to the roof of the house. By such arrangements there would be no such thing as sewer-gas.

In the discussion that followed, the plans suggested by Col. Waring were in the main endorsed.

DR. A. AMES said that Col. Waring had not sufficiently brought out the question of the final disposal of the sewage matter.

DR. E. M. HUNT thought that the fulness of a sewer was not the thing to be depended on in determining its proper size. This should be regulated also by the velocity of the current, and the hydraulic pressure.

EVENING SESSION.

At the evening session Governor Marks, Dr. E. M. Wight, President of the Tennessee Medical Society, and Mayor Thos. Kercheval delivered short addresses of welcome.

DR. CABELL then delivered the

PRESIDENT'S ANNUAL ADDRESS.

This was very long, and consisted of an elaborate historical review of the organization of the National Health Board, with a defence of its course and work. Some facts concerning the work of the Havana Yellow Fever Commission were given. It was found that yellow fever had been endemic in Havana since 1761, and that it was thought to have been imported at that time from Vera Cruz. The sanitary condition of the Cuban sea-port towns, the commission said, is wretched, the death-rate amounting sometimes to forty or fifty per thousand. The pathological part of the commission's work is yet unfinished. Dr. Sternberg has, however, discovered one characteristic pathological change, viz.: a fatty degeneration of the white blood-corpuscles. He was unsuccessful in inoculating any lower animals with yellow fever, and had been unable to isolate any *contagium virum*.

President Cabell gave a full history of the Gamgee refrigerating ship. He discussed the subject of internal quarantine regulations, and also of international quarantine.

He cited the following propositions as having been established by last summer's experience:

1. That in yellow fever unrestricted family intercourse is one of the most fruitful means of spreading the infection.

2. That when prompt notice is given of a case imported into a previously uninfected locality, proper measures energetically employed will generally suffice to arrest the disease.

3. That even in case of an epidemic it is possible, at least in the smaller places, by very rigorous efforts, to stamp out the disease.

4. That a properly directed quarantine may be an effectual security to sea-ports and inland towns against the introduction of contagious diseases; and that the policy of absolute non-intercourse is unnecessary.

SECOND DAY— NOV. 19TH.

At the opening of the morning session 36 new members were elected. The Association accepted an invitation to a reception by Mrs. James K. Polk.

DR. CHAS. F. FOLSOM read a paper by Elliott C. CLARK, C.E., on

CITY SCAVENGERING IN BOSTON.

Scavengering includes removal of house-effects, ashes, house-dirt, offal; also the cleaning of streets, privy-vaults, cesspools, etc. Such garbage, in Boston, is all removed in properly constructed wagons. It is taken to the department depot and dumped on platform cars. These take the garbage out of the city, where it is sold to the farmers. The sales last year amounted to $28,000; the cost of collecting to $76,000. One hundred and eighty-five miles of streets are cleaned every week, some of the streets being swept every day. The work on the whole is very satisfactorily done.

Dr. H. M. THOMPSON, of New Orleans, read a paper on the

DISPOSAL OF GARBAGE AT NEW ORLEANS.

There are three ways, he said, in which garbage may be disposed of. It may be cremated, or dumped, or transported from the city. In New Orleans the dumping system had long been employed, and with very bad results. In considering the question of reform, cremation was thought too expensive. They adopted, therefore, the plan of having all the garbage put on scows, towed down the river two miles, and then dumped into the current. This plan had worked admirably.

The discussion that followed the above papers was shared in by a large number of members. There was considerable testimony to the difficulties of making a profitable disposal to farmers of garbage and house-effects.

DR. E. H. JANES, Secretary of the Association, read a lengthy paper by Dr. E. G. Janeway, of New York, on

MUNICIPAL SANITATION.

Much of the space was devoted to the subject of tenement-houses and their proper construction. The recent law passed in New York concerning this matter was dwelt upon very favorably. Dr. Janeway's paper also discussed the subject of contagious diseases. In regard to their sporadic origin he did not consider the matter settled, and recommended the question to country doctors, as being best situated to obtain facts bearing on the matter. The writer did not think that the refuse from slaughter-houses was calculated to develop scarlet fever. He did not believe yellow fever to be contagious. The paper concluded with proposing a series of resolutions containing suggestions to health boards for securing more uniform and accurate vital statistics.

AFTERNOON SESSION.

DR. A. L. GIBSON, U.S.N., read a paper upon the subject of

THE PROTECTION OF THE INNOCENT AND HELPLESS FROM VENEREAL DISEASE.

The paper was excellently written, though somewhat rhetorical for a scientific contribution, and was incomplete in the matter of facts. It advocated the establishment of some form of regulation of prostitution. It was listened to with much attention. At its close several members expressed their approval of its sentiments.

It was voted that a committee of five be appointed to consider the subject of the address and report to the Association. Drs. A. L. Gibson, W. B. Griffith, J. McKeller, Sternberg, and P. H. Bailhache were appointed.

EVENING SESSION.

The evening was devoted chiefly to discussing the question of the

EXOTIC ORIGIN OF YELLOW FEVER.

DR. A. A. WOODHULL, U.S.A., in an elaborate paper, claimed that in the epidemic at Savannah, in 1876, the yellow fever did undoubtedly originate at Savannah. Frost, Dr. Woodhull believed, might extinguish an epidemic, but would not necessarily devitalize the fever cause.

DR. T. J. TYNER read a paper on

THE ETIOLOGY OF YELLOW FEVER IN MEMPHIS.

He claimed that it arose there as well as in other American cities *de novo;* or, admitting it to be exotic, he was sure its spread was absolutely dependent on local conditions.

A number of members shared in the subsequent discussion. They were about equally divided on the subject on the exotic character of the disease. Drs. Early, Hargis, and Wise were believers in the indigenous theory; Drs. Campbell, Austin, and Elliott were against it. Dr. Elliott contradicted the conclusions of Dr. Woodhull in regard to the Savannah epidemic.

THIRD DAY—NOV. 20TH.

Twenty-four members were elected at the opening of the morning session.

The following officers were then chosen for the ensuing year: *President*, Dr. John S. Billings, U.S.A.; *First Vice-President*, Dr. Choppin; *Second Vice-President*, Dr. R. C. Kedzie; *Treasurer*, Dr. J. B. Lindsley, of Nashville, Tennessee.

It was voted to hold the next annual meeting at New Orleans.

During the balloting for officers, a paper was read by Dr. W. H. BREWER, President of the Connecticut Board of Health, on the subject of

ROTTEN WOOD.

Dr. BREWER related experiments which he had made, showing that wood of any kind, when left in still water, will produce low putrefactive changes. The water dissolves out the nitrogenous constituents of the wood, and these decompose. In running water various fungi become attached to the wood.

Dr. J. D. PLUNKET, President of the Tennessee Board of Health, read a paper on

COTTON AS A FOMITE.

A history was given of the evidence upon the question, and it was concluded that cotton was, from its porous and flocculent nature, particularly adapted to become a carrier of infectious disease. Notwithstanding this, it was a remarkable fact that no case of yellow fever has been recorded as having originated from contact with cotton. Whether this were accidental, or due to germicide virtues in the cotton-oil, could not be determined. Meanwhile, however, cotton should be treated as dangerous.

A paper upon

THE LATE MEMPHIS EPIDEMIC

was read by Dr. G. B. Thornton, President of the Memphis Board of Health.

He stated that the prevailing opinion among Memphis physicians was, that the yellow fever was not imported into Memphis. Dr. Thornton thought himself that the balance of facts was on that side. In regard to the alleged filthiness of the city, he said that though not in the condition it should have been in the beginning of the summer, it was quite as clean as many other cities, and that the lack of perfect sanitary arrangements was largely unavoidable. At present he considers the city as clean as any in the country. He did not think that, when yellow fever was firmly established, either disinfection or isolation could eradicate it.

He thought, however, that by thorough disinfection and proper local sanitation during the winter, the disease could be driven away.

At the conclusion of the paper, the following

EXECUTIVE COMMITTEE

was elected: Dr. C. B. White, New Orleans; Dr. J. L. Cabell, Virginia; Dr. E. M. Hunt, New Jersey; Dr. J. D. Plunket, Tennessee; Dr. C. F. Folsom, Massachusetts; Dr. A. L. Gihon, U.S.N.

Evening Session.

The session opened with a paper on

THE YELLOW FEVER QUARANTINE OF THE FUTURE,

by Dr. H. F. Campbell, of Augusta, Ga.

Dr. Campbell argued for a strict quarantine during epidemics, on vessels, railroad-trains, etc. Never, he said, let the latter come nearer than twenty miles to the infected spot without changing cars; carefully disinfect the baggage, etc., but let the individual pass, even if the fever is upon him.

At the conclusion of the paper, Dr. Holliday, of New Orleans, said that at present all New Orleans physicians were agreed upon the value and necessity of a quarantine that did not imply absolute non-intercourse. In regard to the exotic character of the disease there were still differences; many thought that the disease had now become endemic.

Dr. J. H. Ranch reported a case seeming to show that cotton had carried the yellow fever contagium.

Dr. A. N. Bell made a strong appeal to the Association to extend every possible aid to Memphis.

Judge J. W. Clapp said he thought that they should all be humiliated that the Association, after three days' discussion, was no nearer any satisfactory conclusions than before. Judge Clapp defended Memphis from the charges of neglect and filth which had been made against it.

Dr. Bailey did not believe in quarantine for yellow fever, nor in the exotic character of the disease.

Dr. Peters, of New York, thought that the conveyance of yellow fever was more like that of typhoid fever than anything else.

Fourth Day—November 21st.

At the Morning Session 150 new members were admitted. The following papers were read: "Quarantine in Arkansas in 1879," by R. G. Jennings, of Little Rock; "Camps and Depopulation at Memphis, 1879," by John F. Cameron, and "Yellow Fever in New Orleans," by S. S. Herron. Dr. Holliday, of New Orleans, read the report of the Committee on Subjects Submitted by the American Association, recommending a national quarantine of vessels to prevent the importation of the first case of yellow fever; the establishment of quarantine hospitals; the Governments, national, State, and municipal, to make provision for the removal of unnacclimated persons; the exclusion of upholstered furniture, rugs, and carpets from railroad cars during epidemics. The report further shows the important results which have sprung from the incorporation of the National Board. President Cabell announced the appointment of the following Advisory Council: Alabama, R. D. Webb; California, Henry Gibbons; Florida, S. C. Cobb, of Pensacola; Georgia, H. F. Campbell; Illinois, J. H. Ranch; Indiana, J. F. Hibberd; Mississippi, Wirt Johnston; Louisiana, D. C. Holliday; Maryland, James A. Stewart; Massachusetts, Azel Ames; Pennsylvania, Henry Hartshorn; Ohio, T. C. Minor; Missouri, Dr. Homan; Rhode Island, E. M. Snow; Tennessee, J. W. Clapp, of Memphis; Virginia, L. L. Joyner; Michigan, H. B. Baker; West Virginia, James E. Reeves; District of Columbia, Dr. Toner; New York, Dr. Harris; North Carolina, F. F. Wood; South Carolina, R. Lebby; Connecticut, C. W. Chamberlain; New Hampshire, L. F. Conn; Vermont, H. D. Holtar; Texas, Dr. Rutherford; Wisconsin, E. L. Griffin; Minnesota, W. Hunt; New Jersey, L. Lilly; Arkansas, A. L. Breysacher; Kentucky, Pinckney C. Thompson; Delaware, Dr. Bush; United States Army, Dr. McParlin; United States Navy, B. F. Gibbs; National Board of Health, Stephen Smith; Commissioner of Education, Gen. John Eaton.

President Plunkett, of the Sanitary Council of the Mississippi Valley, has appointed the following committee to arrange plans of operations between all the State Boards of Health in the Union: Dr. Hewett, Dr. Pinckney Thompson, of Kentucky; Dr. Griffin, of Wisconsin; Dr. T. A. Atchison, of Tennessee; Dr. Choppin, of New Orleans; and Dr. Rice, of Mississippi.

Evening Session.

At the night session, resolutions were adopted to the effect that the present National Board of Health has been of such service to the country that it is not expedient to make any change in its organization; that the investigations by the board are approved, and should be continued to the prevention of other diseases as well as yellow fever; that Congress should appropriate sufficient funds to enable the board to secure talent and apparatus; that no change in the existing quarantine law should be made without careful consideration; that it is expedient for the National Board to call an International Congress for the discussion of quarantine; that it is clearly the duty of the Government to establish a quarantine station at the mouth of the Mississippi River. The Association then adjourned to meet in New Orleans next November.

THE NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Nov. 3, 1879.

Dr. J. C. Shaw, President, in the Chair.

The Society was called to order at 8.20 P.M., and the minutes of the previous meeting were read by the Secretary, Dr. W. J. Morton.

MISCELLANEOUS BUSINESS.

Dr. Spitzka presented the resignation of Dr. J. C. Davis, which was accepted.

Dr. E. C. Seguin moved a reconsideration of the resolution presented by Dr. Hammond, at the last stated meeting, regarding the Consulting Board to the Insane Asylum in the Department of Public Charities and Correction.

The motion was seconded by Dr. L. C. Gray, and adopted by the Society.

On motion by Dr. Seguin, the Secretary was instructed to correspond with the Commissioners of Charities and Correction, and respectfully request information regarding the functions of the Consulting Board

SUBACUTE MYELITIS.

The President then exhibited microscopical sections from the spinal cord of a case of subacute myelitis that had the following history:

A female patient, æt. 50, he saw in consultation May 26, 1879. The supposed cause of her illness was catching cold several months previously. Her temperature was 98¼ F., and pulse, 100. She suffered from pain and soreness in the muscles, and about the chest from a sense of tightness. There was some wasting of the muscles of the extremities; loss of faradic reaction; neither vesical nor rectal disorder. At the end of two weeks her general condition was about the same, but was unable to speak; although conscious, yet was not aphasic. The case terminated fatally soon afterwards, without special changes in the clinical history. At autopsy nothing abnormal and relating to the nervous system could be seen with the naked eye. The spinal cord was properly hardened, and, on examining microscopical sections, the cervical and lumbar regions were found to be the seat of lesion, which consisted in atrophy, pigmentary and fatty degeneration of the ganglion cells, and in some of them vacuoles could be seen. The medulla had not yet been examined.

A CONTRIBUTION TO THE PATHOLOGY OF ACUTE CENTRAL MYELITIS, BY DRS. E. C. SEGUIN AND E. K. HENSCHEL.

Dr. E. C. Seguin reported the case, which had a history briefly as follows: A male patient, æt. 33, unmarried, originally of good constitution, infected with syphilis, not conscious of straining his back or of catching cold, at 4.30 P.M., Oct. 8th, was taken with pain in the lumbar region, located over the kidneys. Soon after he made ineffectual efforts to micturate. At 9.30 P.M. he made ineffectual efforts to empty his bladder, and was not able to sleep. At 11.30 P.M. he had great desire to micturate, and when he arose from his bed he found that he was unable to stand. There was tingling in his toes and feet, and marked anæsthesia. The sensation at the knees was apparently perfect. He was restless, and his anxiety was great during the after-part of the night. Pulse, 120; temperature, 100° F.

Oct. 9th, 3 P.M.—Anæsthesia had extended upward to the level of the umbilicus; paralysis complete below. Catheter was used. An enema of soap and water was retained. At 8 P.M. he suffered from much pain in the sides of abdomen, lower part of thorax, and epigastrium. No symptoms referable to the hands or arms. Lower extremities absolutely paralyzed and anæsthetic. Spine only slightly tender in its medio-dorsal region. Extremely restless; no dyspnœa.

Diagnosis: Acute myelitis with softening, involving the entire thickness of the cord at a point in the lower dorsal region. The attack bore all the clinical characters of an acute inflammation from exposure to cold. He then suffered from a distressing sense of constriction about the body. On the fifth day of his sickness a strong faradic current was applied, one pole high in the rectum and the other over the abdomen, and an evacuation of the bowels obtained. In the third week there was notable atrophy of the muscles; and the level of the anæsthesia was at the ensiform cartilage. There was fever throughout the course of the disease, and the patient lived two months after the first development of symptoms. A remarkable fact, relating to temperature, was that the temperature of the toes was higher than that of the body for the first few days.

Autopsy less than twenty-four hours after death: Enormous bed-sores over the sacral region. The spinal cord measured 12¾ inches from the point of section, in the lower cervical region, to the *filum terminale*. The lower dorsal region was the seat of marked swelling and evident softening. The cord was carefully hardened, first in absolute alcohol, and then in bichromate of potassa; and, when examined microscopically, presented the following lesions: Descending degeneration of the posterior lateral columns; ascending degeneration; nearly complete destruction of the anatomical elements at the seat of the greatest softening. Several ganglion-cells contained vacuoles; vacuoles apparently quite globular, and contents unaffected by reagents. The coats of the blood-vessels were thickened. Granular bodies—whether the granulation corpuscle or not, was undecided. Neuroglia thickened. Acute central softening.

Dr. Seguin discussed at some length the significance of the clinical history and its relation to the pathological lesions.

Dr. E. C. Spitzka spoke of the remarkable and altogether exceptional rise of temperature, aside from that of the toes being higher than that of the body for the first few days; namely, the rapid rise which occurred immediately before death, with general rise of temperature in the whole body, showing that a sympathy existed between the physiologically separated portion of the cord and the entire central nervous system; and that the separated portion was endowed with a certain amount of vaso-motor influence.

The granular bodies to which Dr. Seguin referred he regarded as different from the ordinary granular pus-corpuscle, and deserved the name of granular cells. The so-called granular cells were frequently nothing but transverse sections of axis-cylinders with disintegrated myeline. He had noticed them especially in chronic myelitis. With regard to the explanation of the existence of these granular bodies, he supposed them to be leucocytes which had taken up a marked amount of pabulum in the shape of disintegrated myeline.

Dr. Birdsall asked whether the vacuoles were inside of the ganglion-cells, or outside in the perivascular spaces; and then followed a discussion regarding their meaning, the origin of spider-cells, etc.; after which, the Society adjourned.

International Congress of Hygiene.—The third meeting of this Association will be held at Turin in April, 1880, under the patronage of the Italian Government. This Congress meets every other year, the previous sessions having been at Brussels and Paris. The work will be done in ten sections, which will include hygiene as applied to schools, to agriculture, manufactures, architecture, and so forth. The subject of regulating prostitution will also be brought up.

Correspondence.

MEDICAL ETHICS.

To the Editor of The Medical Record.

Dear Sir:—In a correspondence published in your issue of Nov. 22d, Dr. Piffard, Secretary of the late Board of Censors, claims that your reporter was in error when he made the statement that the Censors reported that the Society lacked "legal power to take action with reference to certain cases of violation of the code," "as the careful perusal of the Censors' report will show." Your reporter has received the published minutes of the seventy-fourth annual meeting of the Medical Society of the county, which contain the Censors' report, and finds on page 31 the following consecutive sentences:

"The existence in this county of a considerable number of so-called regular physicians who are not members of this Society. . . . These gentlemen appear to enjoy the same benefits that the laws of the State intended should pertain only to members of county societies. . . . *On the other hand, they are not amenable to the regulations of the Society, and many of them are beyond the reach of prosecution for breach of the code of ethics.*" Yours truly,

W. M. Carpenter, *Asst. Secretary.*

SPEEDY CURE OF NASAL POLYPI.

To the Editor of The Medical Record.

Dear Sir:—The painless method of removing nasal polypi, never before made public by the originator, is an apology for taking a small space of your valuable journal.

Mr. G. M——, æt. 60, ten years ago applied to me for relief from a soft polypus in the left nostril. I proposed evulsion; but not liking the proposition, he left, and I never heard of him until last May, when he returned with another polypus in the same nostril. I advised evulsion once more; he declined it again, and desired me to cure him the same way as did Dr. G. Ceccarini the first time (ten years ago). On inquiry, Dr. C. kindly answered: "The medicine which I use for removing nasal polypi is four or five drops of pure acetic acid injected with an hypodermic syringe within the body of the polypus once only, very seldom twice; the polypus generally drops off within three or five days without discomfort or pain. Disinfecting lotion will correct the offensive odor." With this information, on the 12th of August, in presence of my friend Dr. J. L. Little, I injected the polypus with six drops of chemically pure acetic acid, and instantly we saw the discoloration of it from red to white. Business preventing him from returning, I could not observe the daily progress; but when he called on September 2d, he had only a small portion of it yet adhering to the middle turbinated bone, the other having dropped off the fourth day after the injection; this remaining portion was injected with four drops of the same acid, and on the third day dropped off, leaving his nose clear, without sore or a vestige of it. Neither of the two operations were followed by any unpleasant symptoms, save a slight smarting from the pricking by the needle when the acid was injected. The offensive odor arising from the decaying mass was corrected by a weak carbolized wash. The long interval from the destruction of the first, and the appearance of the second—ten years between—precludes the possibility of this last being a portion of the first, but a new one.

Respectfully yours,

S. Caro.

17 West Ninth St., N. Y.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 16th to November 22d, 1879.

Baily, E. J., Lieut. Col. and Surgeon; Medical Director of the department. Granted leave of absence for one month. S. O. 157, Dept. of the Columbia, November 3, 1879.

Smith, R. E., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months, from Dec. 1, 1879. S. O. 250, A. G. O., November 15, 1879.

Medical Items and News.

Contagious Diseases — Weekly Statement. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 22, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 15, 1879...	0	15	42	2	84	29	0	0
Nov. 22, 1879...	0	14	43	2	102	51	0	0

St. Bartholomew's Hospital.—The death of Mr. Callender leaves a vacancy on the visiting staff of St. Bartholomew's Hospital which will probably be filled by Mr. Willett, now senior assistant-surgeon.—*Brit. Med. Journ.*

Lady Medical Students.—There are thirty-seven students at present in the London Medical College for Women, and the institution is considered to be in a very flourishing condition.

Homœopathic Insane Asylum.—Plans for the erection of the third building of the New York State Homœopathic Insane Asylum have been approved, and work upon it will at once be begun.

Scarlet Fever in Illinois.—Owing to the scarlet-fever epidemic which is prevailing in Springfield, Illinois, the Local Board of Health has ordered the public schools to be closed until the 1st of January. They have also adopted a resolution recommending that no public funerals be held in churches or private residences. There are said to be about 500 cases of the disease in the city. It prevails in a mild form.

Testing the Audiphone.—This instrument, which was described in our columns several weeks ago, has recently been subjected to some careful tests amongst deaf-mutes. It was found that some satisfactory results were obtained amongst the congenitally deaf; those in whom there was an incomplete development of the auditory apparatus rather than complete destruction of some of its parts.

THE NEW YORK FLOWER CHARITY.—This Society has, during the past summer, distributed over one hundred and forty thousand bouquets amongst the various charitable institutions of this city. We are glad to learn that the Society at times includes illustrated papers in its articles of distribution. It is to be feared that the average hospital patient prefers the Police Gazette to the most beautiful rose.

MOUNT SINAI HOSPITAL.—This hospital has recently received several large donations, among them one of $25,000 from Michael Ries, of California. The hospital building has been renovated and repaired.

DETROIT MEDICAL COLLEGE.—The Detroit Medical College has adopted the three years' graded course of study, and an entrance or matriculation examination for all candidates for graduation. Each session is lengthened to six months. The new regulations go into force in the session of 1880-81.

TREATMENT OF GONORRHŒA.—In an article on gonorrhœa, Dr. G. W. Stoner, of the U. S. Marine Hospital Service, states that there is no one thing so useful as sulphate of zinc in the proportion of two or four grains to the ounce of rose-water. The mixture is still more effectual if an equal or somewhat smaller amount of tannic acid be added.—*Buffalo Med. and Surg. Jour.*

A THERAPEUTICAL CONGRESS.—In a paper read before the Canada Medical Association, Dr. Playter referred to the present lack of uniformity in therapeutical teaching and practice; he spoke also of the indefinite and often contradictory opinions that still prevail in regard to the properties of many drugs. In order to remedy this unsettled condition of affairs, it was proposed that the various medical associations in this country and Great Britain and other countries, if possible—appoint committees, who should meet in a general conference and try to secure some more uniform and harmonious conclusions upon the subject, especially of therapeutics.—*Canada Lancet.*

DR. WILKS, of Guy's Hospital, has been appointed physician to the Duke and Duchess of Connaught, in succession to Dr. Murchison, deceased.

MEDICAL RESEARCHES.—About $15,000 was appropriated by the British Medical Association at its last meeting, to aid in prosecuting various medical researches. Among the special objects are: $250 given Dr. F. Ogston, for the research into the relation between bacteria and surgical diseases; $250 to Dr. McKendrick, for investigation on anæsthetics; $120 to Dr. Crocker, for researches upon the physiological action of alcohol, with special reference to its elimination, etc.

In this way the money has been dealt to about a dozen eminent men, who will investigate and make reports upon the subjects assigned them.

The plan is certainly an admirable one, and deserves imitation with us.

DIPHTHERIA EPIDEMICS.—A very violent form of diphtheria is reported to have broken out in the country about London, Ontario. It is known, locally, as "black tongue."

A remarkable story from Vermont, concerning the spread of diphtheria is going the rounds, and seems to be pretty well vouched for:

A few weeks ago a family of three children in St. Albans, Vt., had the diphtheria, but made good recovery. After they had been well and about the streets for two weeks, they went to Fairfield and visited in four families. At that time there was no diphtheria in Fairfield, but since then it has broken out in each of those four families.

The ravages of diphtheria in Russia have for several years been very great. It is reported that this fall the disease has continued to increase. In Odessa, since May last, 76 per cent. of the children have died from the disease. In other places half the infant population has perished in the same way. Eleven districts in all are now infected, and the condition of affairs is so serious that the government has appointed a special commission to investigate the causes of the epidemic.

PRURITUS VULVÆ.—Dr. S. L. Parmalee, of Watertown, N. Y., writes: My attention has been called to an interesting case reported by Elizabeth M. Cushier, M.D., in the last RECORD of November 8, 1879, of an epithelioma of vulva, and she asks the question if the long-existing pruritus could have had any relation as cause for its appearing, or whether the removal of it by operation could have produced such changes as to cure the pruritus.

In alluding to the case, I only wish to draw attention more directly to the pruritus vulvæ, its general cause and cure.

In my mind, in the case reported we have a not uncommon cause in the condition of the cervix which was found. The patient, although sixty years of age, had "the membrane of cervix of a deeper color than the vaginal membrane, and a slight erosion, and a small amount of thin yellow fluid (sero pus) escaping from the cervix *with a sensitiveness of the canal on the passage of a probe.*"*

Do we not have here the true cause of the pruritus and the real cause of its cure, the very appropriate applications of carbolic acid and glycerine to the cervical canal?

The relics of an old cervical leucorrhœa remaining so long after the menopause, although very slight, might produce, by its irritating character, this pruritus; but what is very likely a more rational explanation, the reflex irritability of the sensitive nerve filaments might have produced it, as we well know that pruritus is oftentimes a pure neurosis. Bearing upon this reflex irritability, caused by a morbid condition of the cervical canal, lingering sometimes long after the menopause, I will give a single case:

Mrs. B —, aged fifty-two years; menses ceased some four years previous, and whose general health was excellent, except somewhat frequent attacks of severe strangury, for which her husband, a retired physician, had cauterized the urethra locally with appropriate internal medication; but all to no avail. At his request, I called upon her, and a vaginal examination found the uterus very much atrophied and the external os almost entirely closed; but after close examination a minute orifice was found at the bottom of the vaginal cul-de-sac, and upon passing a very fine probe, I found the original cervical canal so sensitive that great pain was caused by its passage, which reminded me of the sensitive crown of a tooth.

Dilating the external os and making a few applications of tr. iodine, she was completely relieved of her long-standing and painful malady.

With one or two inquiries, I will close. Are there not many times conditions of nervous system that linger years after the "change of life" which ought

* [illegible] mine.

not to be referred to some lingering old uterine trouble, and which is too often overlooked? And is it not our duty to keep constantly before us this fact in many maladies after this change has occurred?

A Doctor not in Consultation.—It has never been thought necessary to teach the differential diagnosis between typhoid fever and strangulated hernia; nevertheless, a melancholy instance of where such instruction was needed occurred at Pennsylvania last month. A young man, aged 23, was taken with chills, and continued to grow more and more ill. Two physicians, Drs. A. and B., were called in to see him, and pronounced the case one of typhoid fever. They treated him for this disease for some days, but the patient grew steadily worse, and at last the family, unknown to either of the first two physicians, called in Dr. C. He stated that the treatment which they had been following was entirely wrong, and that the patient was suffering from strangulated hernia. He gave a hypodermic injection of morphine. After this the patient grew drowsy, fell into a heavy sleep, and, in a few hours, died.

The coroner made a post-mortem examination, and found that the disease was typhoid fever, as had been first diagnosed. We do not know whether or not Dr. C. has heretofore been considered an ornament to the medical profession. In his connection with the above case, there was a positiveness of statement and a decision of action which, on previous occasions, may have won him much favor. His last performance, however, makes it clear that his proper sphere of usefulness is outside of the professional line. Violations of the code of medical ethics are known to have been overlooked; insinuations against the character of a professional brother have been condoned; and even extremely stupid mistakes are known to have been committed by very respectable practitioners. When, however, all these three derelictions occur on one occasion, and to one man, he should be requested, for the sake of humanity and our common reputation, to step out from the ranks of medical men.

It is instances of this kind which show that our code of ethics has a practical value, as well as an æsthetic and moral one. A proper consultation in accordance with rule would have saved much distress, and, perhaps, a fatal issue.

Pop-Corn in the Nausea of Pregnancy.—Dr. F. A. Burrall, of this city, writes: "One of the best remedies for the nausea which attends the parturient state is the quickly roasted grain of the *Zea mays* or Indian corn. It is too familiarly known as 'pop-corn' to require any description. Many physicians are not aware of the beneficial results which may often be derived from the use of this simple agent. It should be white and light, and may be eaten freely, sprinkled with salt. I think it is no exaggeration to say that it will be found of the greatest service in many cases where the products of the chemist's art have proved unavailing."

A Royal Sanitary Commission has been appointed to go to Dublin and investigate the condition of matters there. For a long time that city has had the reputation of being wretchedly drained and cleansed, its tenement-houses being particularly bad.

Pharmaceutical Use of Gelatine.—According to the *Pharmaceutical Journal*, gelatine is not suitable as a vehicle for tannin in pessaries or suppositories. A decomposition occurs with the formation of tannate of gelatine, and the otherwise gelatinous vehicle breaks down in the preparation. As it is becoming fashionable to use gelatine as the vehicle for various drugs, and especially to prescribe pessaries of this material, the fact thus noted should be borne in mind.

The Medical Law of California.—Several of our Western States have taken the lead as regards legislative restrictions upon quackery. Of these States, California, according to the *Western Lancet*, heads the list. The editor of this journal, in commenting upon the workings of the law, states that, although not rigidly enforced, it has already done a great deal toward driving away notorious quacks and impostors. The law has been pronounced constitutional by the highest tribunals, and, as a rule, convictions follow the cases of arrest. In that State, to be an unlicensed doctor is to be a law-breaker.

Irregular Practitioners on Health Boards.—Encouraged by their success in getting on the National and other boards of health, a petition has been signed and sent to Governor Blackburn, of Kentucky, asking that a homœopathic doctor be made member of the State Board of Health. It is thought that this effort will surely fail with the doctor-governor.

Sanitary Institute of Great Britain.—This organization held a meeting at Croydon under the Presidency of Dr. Richardson, on Oct. 21st, 22d, 23d, and 24th. There was a sanitary exhibition in connection with the meeting, which was the largest and most influential ever given in connection with the institution. Papers were read by a number of prominent sanitarians.

The Massachusetts Medical Society has voted to admit women to membership. As Boston female doctors largely run to homœopathy, it is not expected that the society's action will greatly change the character or sex of its members.

To Remove Plaster-of-Paris from the Hands.—A very effectual way of removing plaster-of-Paris from the hands, is mentioned by a correspondent of the *Boston Medical and Surgical Journal* as being employed in St. Thomas's Hospital. It consists merely in the use of white of egg, instead of soap, in washing the hands. The fact will interest those who have much to do with plaster dressings.

National Academy of Sciences.—At the recent meeting of this Society in New York City, Dr. J. J. Woodward presented the results of some of his work in connection with the production of the "Medical and Surgical History of the Rebellion." This work referred especially to dysenteric and diarrhœal diseases.

Dr. J. C. Dalton presented some generalizations upon the structure of the human brain. He showed, in particular, that the gray matter of the cerebro-spinal system is in three deposits: viz., in the centre of the cord, in the ganglia at the base of the brain, and in the cortical substance. These three deposits are all intimately connected. The true shape of the corpus striatum and the relations of the hemispheres to the crura cerebri were also described.

Surgeon-General P. S. Wales, U. S. Navy.—Surgeon-General William A. Hammond, U. S. Army (retired), of this city, on the evening of November 20th, gave a brilliant reception in honor of P. S. Wales, of the U. S. N., lately appointed Surgeon-General. A large number of members of the clerical, legal, and medical professions, and also several eminent representatives of the U. S. A. and the U. S. N., were present.

Original Lectures.

CLINICAL LECTURE ON DISEASES OF WOMEN.

Delivered at the College of Physicians and Surgeons, New York.

By T. GAILLARD THOMAS, M.D.,

New York.

[Reported by P. Brynberg Porter, M.D.]

Case I.—*Pelvic Neuralgia due to Laceration of the Cervix.*

Gentlemen: Our first patient to-day is Bridget R——, a native of Ireland, and thirty-one years of age. She has been married twelve years, and has had six children and one miscarriage. The last child was born three months ago, and as we so often find the disorders peculiar to women dating from parturition, she informs me that her trouble has lasted just three months. What she complains of, and has come here to seek relief for, is a fixed, constant, and severe pain in the lower part of the abdomen, which has continued ever since her child was born. She suffers from absolutely nothing else whatever, and is, as you perceive, a perfectly healthy-looking Irishwoman.

The pain is certainly a very definite reality to her, and yet, when I came to make external palpation over its seat, as indicated by her, I found nothing at all abnormal about the locality, and no tenderness was excited even when very firm pressure was made upon it. In order to find out, if possible, what it was due to, I made a vaginal examination, the patient in the meantime informing me that she had been previously examined by a physician, who told her that she had "ulcers on the womb." As soon as my finger reached the os, I found that there was a very bad laceration of the cervix, extending fully up to its junction with the vagina; and this was no doubt the explanation of the ulceration which was supposed to exist in the case. Besides this, there was nothing abnormal about the pelvic organs, as far as I was able to ascertain, except that the uterus was tilted slightly forward.

Now, have we arrived at the diagnosis in this case? I think we have; for I am fully convinced that the constant pain complained of here is really a reflex neuralgia, which is due to nothing else but the pathological condition found about the cervix. But you say: Have you not told us that the uterus is anteverted to some extent? Yes; but that condition, too, I believe to be due to the laceration of the cervix also. The laceration has been the means of keeping the uterus constantly engorged with blood, and consequently, being heavier than it ought to be, it has fallen forward somewhat, and remained in this position.

This completes the case, with the exception of a brief allusion to the treatment. Since this pelvic neuralgia depends, as we believe, upon the laceration, the only way to cure it is to perform an operation and close the latter. If our diagnosis is right, it is just as sure to do away with the pain complained of as the removal of a tooth is to cure a supra-orbital neuralgia which depends upon its presence in the mouth. In either case the suffering may not cease at once, but, the cause having been really removed, it will, at all events, gradually disappear. If the operation for the closure of the laceration is performed here, I am confident that the patient will be entirely relieved of all her pain. The focus of irritation will then have been removed, and the uterus will also return to its normal position, because the cause of its congestion will have disappeared.

This is not an isolated case. If it were, I should not be so willing to attribute the whole trouble to a laceration of the cervix (although here very extensive); but I have seen such a large number of similar instances in which complete relief was afforded by the operation, that I can speak with a considerable degree of confidence.

Case II.—*Chronic Ovaritis.*

The next patient, like the last one, I want to use for the purpose of impressing a fact upon you. The advantage of a clinic like this I conceive to be that you here see cases which will be of advantage all through your practice when you meet with similar ones. Thus, for instance, when in three, five, or ten years from now, you see a patient whose only symptom is such a reflex neuralgia as is present in the case that has just been dismissed, the memory of this laceration of the cervix, long forgotten it may be, will instantly flash across your mind.

The patient's name is Margaret B——. She is a native of the United States, twenty-five years old, and single. "How long have you been sick?"

"About two years."

"Were you quite healthy up to that time?"

"Yes."

"In what way have you suffered?"

"From severe headache and pain in the back and side."

"In any other way?"

"No."

(These are, of course, obscure symptoms; but still they point towards the generative organs, and are sufficient to induce us to ask direct questions concerning them.) "How about your monthly periods?"

"I have great pain then."

"At what time does the pain come on?"

"A week before the blood comes."

"Do you suffer much at this time?"

"Yes, very much indeed."

"Where do you feel this pain, of which you speak?"

"All around the waist."

"Is there any particular point where it is especially severe."

"Just here" (placing her hand over the left iliac fossa).

"And does this keep you very uncomfortable?"

"I can get no rest at all."

(I assure you, gentlemen, that this patient is not exaggerating in the least; for, as she described them to me in private, her sufferings are undoubtedly much more acute than she gives you any idea of here.) "Is it a full week before the flow that the pain commences?"

"More often about five days."

"When the flow comes on, does the pain cease?"

"Yes."

Yet this is called dysmenorrhœa. You see, however, how utterly inapplicable the term is in such a case as this. Dysmenorrhœa, of course, means difficult menstruation; and yet here the patient only gets relief when the menstrual blood begins to flow. This is the peculiarity about these cases, although the relief when the flow comes is not always complete. Let us inquire about this point here.

"When the flow appears, does the pain stop altogether."

"Usually it does, but sometimes I have pain for about three days longer."

"Then how is it with the last two or three days of your period?"

"I am entirely free from pain then."

"Do you have the whites at all?"

"A little."

This is a typical case of its class. Here is a woman who evidently has something wrong about one of the processes, either of ovulation or menstruation. You know that in the last few years many authorities have begun to doubt that ovulation is really the cause of menstruation. In support of the view that they are independent processes, it has been claimed that a number of instances have occurred in which both ovaries have been removed, and yet menstruation has gone on just the same as before. In matters of this kind, however, one cannot help being guided to a certain extent by his own experience. I have taken out both ovaries in no less than fifteen cases, and yet in not a single one of them has the patient continued to menstruate. In two or three, it is true, there was a tendency to metrostaxis, as it is called, which is analogous to epistaxis. But this was due, undoubtedly, to the habit of menstruation which the uterus had acquired during a long series of years, and could not give up all at once. In every instance, however, the menses disappear altogether in the course of a few months. In one instance that I know of (not in the human subject, however), I must confess that I was not a little puzzled for a time, as it was so contrary to my experience. A bitch which had been spayed continued to œstruate just the same as before. But when after a time she became pregnant and gave birth to pups, the whole matter became clear. Although both ovaries had been completely removed, there was undoubtedly present in this instance a supernumerary ovary (the *ovarium succedaneum*, as it is called), which is occasionally met with in the lower animals. If the animal had not happened to become pregnant, the case would certainly have been quoted as one of those supporting the idea that menstruation is independent of ovulation; but as ovulation took place, it was evident that there was still an ovary left, which, of course, would account for the menstruation as well as the ovulation. The arguments of those maintaining the independence of the two processes, are, in my opinion, weak and inconclusive. My impression is that menstruation is dependent on ovulation; and I am convinced that in time we will all go back to the unchallenged faith of our fathers.

In the case now before us, the derivative action of the menstrual flow always relieves the pain that precedes it, and, as a general rule, dissipates it entirely. What, then, would seem to be the trouble here? Something must be wrong about the ovaries, and in all probability the left one particularly. At all events, this would satisfactorily account for all the symptoms which have been noted, as well as one additional one to which the patient has just called my attention, and which has not as yet been mentioned to you. This is a peculiar dusky discoloration of the skin upon the forehead, similar to that seen in Addison's disease, and giving a sunburst hue to the part. Such a pigmentation is generally of long standing, and sometimes becomes permanent.

On resorting to a physical exploration here, the first thing that I noticed was that the uterus was decidedly anteflexed. Now, if any one had made the vaginal examination without first inquiring particularly into the history and rational signs, as we have done, he would undoubtedly have pronounced this a case of obstructive dysmenorrhœa, due to anteflexion of the uterus; and I cannot tell you how often I have known even eminent surgeons cut deeply into the cervix, for the purpose of relieving stricture at the *os internum* in just such cases as this. Yet, what could possibly be more illogical? In the first place, the pain occurs long before there is any blood in the cavity of the uterus to be dammed up by the obstruction at the *os internum;* and, in the second place, as soon as the blood makes its appearance, the pain is at once relieved, or even done away with altogether.

I was therefore satisfied that this was by no means the true diagnosis of the case; and, proceeding with the examination, I succeeded in finding just what I expected to find from the symptoms which the patient had so feelingly described. On making conjoined manipulation, I ascertained that there was nothing abnormal in the region of the right ovary; but in the left broad ligament I discovered a body about the size of a hen's egg, and so exquisitely sensitive that the slightest pressure upon it caused the patient a great deal of suffering. Indeed, as soon as I began to palpate it, she exclaimed, "That is what gives me my headache and all my trouble." Now, I felt that I had arrived at the correct diagnosis, and this was *chronic ovaritis*.

This condition is vaguely so called, for we know almost nothing of ovarian pathology, except so far as cysts and other large tumors of the ovary are concerned. The only way to find out the exact state of affairs would be by a section of the organ; but, as this affection never proves fatal, there has been very little opportunity for studying its real pathology. The most that we can say concerning it is that there is probably a certain amount of hyperplasia present, and certainly congestion and nervous derangement. But how about the displacement that we find in addition to the chronic ovaritis? This is a coincidence that you must always be prepared to expect; and Barnes, in his work on diseases of women, makes the unqualified statement that there is more or less displacement of the uterus in every case of chronic ovaritis. The explanation is that the uterus is kept constantly engorged with blood, in consequence of the condition of the ovary, and hence, being much heavier than normal, it bends over in one direction or another, and then remains permanently in a malposition. It is possible that in the healthy female the uterus not infrequently falls backward or forward at the time of the menstrual epoch, in consequence of its increased weight at this period; but, the congestion being only temporary, the organ returns to its normal position as soon as that passes off. The leucorrhœa that has been noted in this case is also probably due to the same cause, the long-continued congestion of the uterus having given rise to endometritis, or chronic uterine catarrh.

The prognosis in such a case as this will depend somewhat on whether the medical attendant directs his treatment to the uterus alone. If you should pursue this course, at the end of a year or two, perhaps, the patient will complain that she suffers exactly the same, not having experienced the slightest relief, even though her uterus may have been restored perfectly to position and constantly maintained there. Why so? Because you will have been treating merely an effect, and not the cause of the trouble. What should be treated is that left

ovary; but, alas! our means for doing this are extremely limited, and far from satisfactory. Such a condition as is here present will yield only to a prolonged course of treatment, and in some instances will not yield at all. Many of the cases are so incurable that the only chance of relieving the patient is to resort to the operation which Dr. Batty has devised, and termed "normal ovariotomy." It is, however, such a dangerous procedure that it should never be undertaken unless the case is really a desperate one.

Notwithstanding that these cases are so discouraging, however, I should certainly advise you never to begin with one of them by telling the patient that you can do nothing for her. Such an announcement would only utterly dishearten her, and if it did not plunge her into a permanent state of melancholy, would, at all events, tend to make her feel worse than ever. One thing that you always find about them is that the general condition is considerably impaired; so that, in the first place, the patient needs feeding up to the greatest possible extent, in addition to a course of appropriate tonics. One of the best that I have found in this condition is the syrup of the hypophosphites, which is now so frequently employed in the incipient stages of phthisis; and iron, quinine, and other agents, will all prove of some service. The remedies employed should always be changed from time to time. But in order to produce a beneficial effect upon the nervous system, I know of nothing whatever so useful as what is called "travelling for pleasure;" and, if this patient could spend a year in Europe, under agreeable circumstances, I have not the slightest doubt that she would be immensely benefited. I have found no other treatment for chronic ovaritis nearly so good as this change of air and scene, and the pleasurable excitement of sight-seeing and travel in cheerful company, although I do not pretend to explain exactly in what manner the good result is brought about.

But, supposing that the patient is not able to travel in Europe, what can we do for her in addition to giving her the tonics spoken of? In the first place, she should be directed to make use of very copious hot-water vaginal injections at least twice a day, and three times, if possible. Then I should paint the roof of the pelvis once a week with compound tincture of iodine; but if after a time it was found that this was not doing her any good, it ought to be discontinued; after which it would probably not be necessary to make another vaginal examination for several months to come. Iodine might also be applied externally, and as often as two or three times a week. At the same time electricity should be faithfully employed, and for this purpose I have found the constant current the only one that is of service, the faradic current being rather injurious than beneficial. The best way to apply it is for the patient to lie upon one electrode while the other is carried to the region of the affected ovary, and the application may be made once or twice a week. For at least a week preceding menstruation the patient should have absolute rest in bed (rest being as important to an inflamed ovary as to an inflamed eye), but she may be permitted to get up as soon as the flow makes its appearance.

Under such a plan of treatment I should expect the patient to be materially benefited in the course of a year, and it is possible that she might be very greatly improved even in a few months. Under ordinary circumstances, of course, it is impossible for a girl like this to have such measures as these carried out; but if she can be persuaded to enter such an institution as the Woman's Hospital in this city, I can assure her that everything will be done for her that science can suggest for the relief of such unfortunate cases.

CASE III.—*Menopause unusually delayed.*

Our next patient, Elizabeth C——, was born in England, and is fifty-one years old. She has been married thirty years, and has had thirteen children and two miscarriages.

"How long have you been sick?"

"Ten months."

"Not longer than that?"

"Yes, somewhat; but I commenced doctoring about ten months ago."

"What was it for which you consulted the doctor?"

"Bloating of my stomach."

"Anything else?"

"Pain in the back."

"If the bloating of your stomach were gotten rid of, you would feel quite well, would you not?"

"Yes."

"When did you have your monthly sickness last?"

"Seven weeks ago."

"How many times have you had your sickness during the last twelve months?"

"Four times."

"Do you have any discharge?"

"Sometimes a little whites."

In glancing back on this history, we find the symptoms quite obscure; but, at all events, we have the interesting fact that this woman of fifty-one has not altogether ceased menstruating. During her fifty-second year, as we have seen, she has menstruated four times; and on inquiry I find that during the year preceding she menstruated more frequently than she should have done, the flow occurring regularly every three weeks. For a year past she has noticed a considerable enlargement of the abdomen, which she calls "bloating;" and she now informs me that this causes her a great deal of difficulty in breathing when she takes exercise. As she expresses it, it "all smothers her up." She appears to have no other trouble.

On making an examination *per vaginam*, I found that the uterus measured three inches in depth, and although this was by no means a long measurement for the uterus of a woman who has borne thirteen children, I ascertained, on making conjoined manipulation, that the uterus was larger than normal in other respects. I also discovered a very extensive laceration of the cervix, which must have been made during one of her labors (perhaps the first), and was, no doubt, the cause of the sub-involution of the uterus here noticed. This state of affairs would, it seems to me, account for the patient's still menstruating at the age of fifty-one, the physiological atrophy at the ordinary age of forty-five having thus been prevented. There is, however, no disease about the structure of the organ; and it is probably smaller than it was a year ago. The near approach of the menopause is also indicated by the marked diminution in the frequency of the menstruation.

One characteristic of the change of life, as it is popularly called (especially when this comes on at a later period than usual), is senile hysteria; and accompanying this is a very marked tendency to tympanites. This tympanites is exceedingly apt to come on at the time of the menopause, and is, indeed, often seen in cases where there is none of the hysterical element in connection with it. In the present instance you notice how very resonant and drum-like the sound is when I make percussion over the dis-

tended abdomen. This accumulation of gas no doubt presses upon the diaphragm to some extent and causes the patient a certain amount of discomfort. So much, then, for the diagnosis.

As to the prognosis here, I may remark that no remedy at present known to medical science will cure the tympanites. A frank and kindly talk on the part of the medical attendant will do more for the patient in such a case as this than all the medicine in the world. Such women are apt to imagine that they are the subjects of tumors and all sorts of terrible affections, and it will do them a great deal of good if they can be made to understand that the whole trouble is due merely to wind in the intestinal tract, and that the utmost injury that it can cause them is simply a little inconvenience. The tympanitic condition is due entirely to the state of the nervous system peculiar to this period of life, and nothing need be done for it except to keep the bowels regular. In the present case, there is no constipation, and the patient, therefore, requires no medicine. In some instances systematic kneading of the abdomen is of service, and the knee-chest position will often enable the patient to get rid of a considerable quantity of the gas. Dr. Jenks, of Detroit, has recently written a very interesting paper on the treatment of tympanites by this postural method, and although it is a plan of treatment that has long been recognized to some extent, he deserves great credit for calling the attention of the profession to it in so able and forcible a manner. There is one case which he mentions particularly, in which such marked tympanites came on after ovariotomy that the patient nearly died in consequence of it. When this method was resorted to there was an escape of an unlimited amount of flatus by the anus, and the patient afterwards made a good recovery from the operation. Personally I have been in the habit of employing it in certain instances for the past fifteen or twenty years, and can, therefore, confidently recommend it to you.

CASE IV.—*Pregnancy, with Anteflexion of the Uterus.*

Our last patient to-day is Mary C——, a native of the United States, and twenty-two years of age. She has been married five years, and has had three children and one miscarriage. Her last child was born one year ago, and the miscarriage occurred before that.

"How long have you been sick?"

"One year." (The patient has been sick just a year, and, as you have heard, it is just a year since her child was born. Here, no doubt, is another of these very frequent instances that we meet with, in which injuries received by the uterus in parturition give rise to long-continued trouble afterwards. In the case of the woman who was just before us, for instance, I am confident that the unusual delay which we found in the menopause was due to the subinvolution of the uterus that remained after one of her labors.)

"In what way do you suffer?"

"I have the back-ache."

"Do you have pain anywhere else?"

"No."

"Do you suffer from the whites?"

"Yes."

"Very much?"

"Yes."

"Do you have any trouble with the bladder?"

"I have to pass my water very often."

"Are you regular in regard to your monthly sickness?"

"I have not seen it for two months."

"You do not think you are in the family way?"

"No."

When I made an examination here, I at once discovered that the uterus was bent over, and directly pressing upon the bladder. Here, then, already was a sufficient cause for most of the symptoms; the frequent urination, the back-ache, and the uterine catarrh giving rise to leucorrhœa. But, on touching the cervix with my finger, I found that it was quite soft and covered with a tenacious fluid; and when I employed conjoined manipulation, ascertained that the uterus was more than twice as large as it ought to be.

Why was the cervix so soft and the uterus so large, and why had the menses stopped for two months? I could come to but one conclusion, and that was that the patient was pregnant. In all her previous pregnancies she has suffered markedly from nausea and vomiting, and the absence of this sign made her think that she could not be in this condition. This symptom, however, is by no means a constant one, even in women who are ordinarily subject to it; although just why it should sometimes be present and sometimes not, it would be difficult to explain.

But now, if we find, as I should be almost willing to assert from the absolutely healthy appearance of our patient, that this young woman has never in her life skipped a monthly period unless she was either pregnant or nursing, it would be strong additional evidence that she is now again pregnant. On questioning her, I learn that this is actually the fact, and therefore I do not hesitate to make the diagnosis of pregnancy here. You remember (as I have before endeavored to impress upon you) that a diagnosis is the most logical deduction that we are able to draw from the premises in any given case. Let me advise you in this connection never to be afraid of making a mistake. Always do the best you can under the circumstances, and no one can reasonably find fault with you. There are some men so timid that they are never willing to risk an opinion; but such individuals are invariably weak men, who will never make any success in life. It is possible that in a month from now this patient will come back, and I will find that she has not been pregnant at all; but if this is the case, it will not be the first mistake of the kind that I have made. Like every other medical man of any experience, I have made a large number of mistakes in diagnosis; but, as in every instance I have endeavored to draw the most logical conclusion that I could from the premises offered, I do not think that I have any reason to reproach myself on this account.

Let us glance again at the premises in this case. Given a perfectly healthy woman, who, in the first place, has never skipped a period except during pregnancy or lactation, and who has now seen no menstrual flow for two months; who, secondly, has a softened cervix uteri (which, by the way, admits the finger; while in the normal cervix the *os externum* will only permit the passage of the uterine probe); and who, finally, has a uterus which is more than twice the natural size of this organ, and has lost the natural distinctness of outline characterizing it. What is the deduction? Plainly, that the woman is pregnant; and this is the only common-sense conclusion that can be arrived at under the circumstances.

As to the anteflexion (which, of course, accounts for the marked irritability of the bladder), that, no doubt, originated at the time of her last delivery, a year ago. Either she got up too soon after the labor (which is very probable), or something else occurred

tion which resulted in this displacement. Notwithstanding the latter, however, and the consequent bent condition of the uterine canal, seminal fluid seems to have made its way into the cavity of the organ and the woman is again pregnant. The only thing which I would suggest for the relief of the displacement here would be a cork pad which I am in the habit of advising, on account of its cleanliness, which should be worn upon the lower part of the abdominal walls, in order to lift up the fundus of the uterus. This, I think, will be a great comfort to our patient, and I will only ask, in conclusion, that she will do us the favor of coming back here in a month from now, so that we can have the opportunity of verifying or disproving the diagnosis which has been made.

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEO. M. BEARD, A.M., M.D.

Continued from p. 245, Sept. 27, 1879.

NERVOUS SYMPTOMS CONNECTED WITH TRUE SPERMATORRHŒA—TRUE AND FALSE HYPOCHONDRIA.

IV.

Half a century ago, when women consulted their physicians for symptoms of pain in the back, difficulty of micturition, bearing-down sensations, pain in the vertex and other forms of head pain, insomnia and malaise, with mental depression, incapacity and indisposition for labor, the diagnosis for hysteria was almost always made. At the present time, a female with these symptoms, and other symptoms often associated with them, is submitted to examination by the gynæcologist, and, in very many cases, there is found a diseased condition of the reproductive apparatus—congestions, displacements, and the like; and no treatment of these cases is regarded in any sense as scientific where such examination is not made, and where the proper local treatment is not employed. Whatever constitutional treatment is used; local treatment is considered indispensable—and, on the part of some, has been carried to an extreme, to the rejection or neglect of constitutional treatment. In this respect there is now a reaction; by truly scientific physicians, both constitutional and local treatment are used in alternation or succession.

The functional nervous diseases of men are now in the same condition as the diseases of women half a century ago. Symptoms of mental depression, morbid fear in all its types and phases, hyperidrosis, nervous dyspepsia, palpitation, deficient mental control, together with various forms of head, back, and body pain, are all referred to hypochondria; and there is usually no thought of referring any of these symptoms to the reproductive system, on which they often depend. In the future it will be understood—indeed, it is beginning to be understood now—that the diagnosis of hypochondria in these cases is often times as unscientific as the diagnosis of hysteria with analogous symptoms in women; that whatever constitutional treatment be employed, there should go with it simultaneously, alternately, or successively, local treatment, especially to the prostatic urethra, which is so often the source whence all these difficulties originate, and by which they are maintained.

This view of the relation of the reproductive system to nervous disease is not narrow or one-sided, nor does it partake of the character of a hobby; neither is it here pushed in any way to an extreme. It is in accordance with facts that are verifiable and abundant, that in men as in women, a large group of nervous symptoms which are very common indeed, would not exist but for morbid states of the reproductive system.

I knew of a case of prolapsus uteri where the patient was kept in bed for two years, and treated constitutionally for various symptoms, without any examination ever having been made or suggested; as soon as she fell into proper hands, she was treated by mechanical means, and at once relieved.

We censure, in the strongest words we can command, a physician who manages a case of female disease in this way, at the present time, because the teaching of the schools is clear and abundant, and general practitioners, as well as special practitioners, are expected to recognize, and do recognize, the nervous symptoms of women that suggest disorder of the reproductive system.

When the relation of nervous diseases to the male genital apparatus is as well understood as their relation to the female genital apparatus, it will be regarded as an oversight of a serious character not to inquire and examine, as far as possible, into this local condition, when certain nervous symptoms appear.

What lacerations of the cervix and perineum, irritations, congestions, and displacements of the uterus and ovaries, are to many female nervous symptoms, such are phimosis, redundant prepuce, varicocele, irritable testes, urethral contractions, and, above all and pre-eminently, irritations and congestions of the prostate and *prostatic urethra*, with spermatorrhœa, to many male nervous symptoms.

Interesting and important as have been the advances by surgeons in the surgery of the male genito-urinary organs, the nerve-relations of these parts and functions now remain in much the same state that they were in the days of Lallemand.

The following cases illustrate both the importance of making examination of the reproductive apparatus when certain nervous symptoms exist, and the results which follow neglect of such examination, and consequent want of knowledge of the real source of the difficulty. The cases are the more interesting from the fact that both of them were scientific men, experts in the strict sense of the word, and well qualified to observe and report upon the symptoms. Both of them, I may say, co-operated with me in the study of the cases, and with scientific interest—through the intellect more than through the emotions.

Case XVII.—A young man, not quite thirty years of age, gave me this history: He had formerly been troubled with great pain in the lumbar spine, which had persisted for some time, but which had been relieved some years before by stretching of the prepuce, for a degree of phimosis that existed. The relief which followed this operation for this special symptom of lumbar pain was interesting, and, in his case, I think was not due in any way to mental influence.

When he consulted me he was troubled at times with inequality of the pupils; but this symptom was not constant, as in organic disease of the spine, but came and went, like other symptoms of sexual neurasthenia.

He suffered at times from attacks of nervous chills,

with depression. He likewise suffered from fear of society, so common in these cases.

With all this there was an incapacity and incompetency, at times, for his work, which was confining and exacting, and the query arose whether he ought to continue in his profession. Being a thorough expert with the microscope, he had made very many examinations of urine; and, but a short time before seeing me, he had examined his own and found that it contained spermatozoa. This was a surprise to him; but subsequent examinations confirmed this analysis.

For years this individual had been in a state of chronic exhaustion without suspecting that spermatorrhœa might be an accompanying, if not a causative factor. Even allowing that this unnatural flow of semen in the urine or at stool is, in some instances, an effect of the general neurasthenia, it is surely important to know of its existence. Regarding it as a symptom only, it is a symptom to be noted and treated.

This case was put under both local and general treatment, and is improving.

Case XVIII.—A physician in middle life, of very fine organization, of marked nervous diathesis, consulted me for a group of nervous symptoms from which he had suffered seven or eight years. The symptoms were pain in the upper part of the back and shoulders, mental depression, insomnia, and shooting pains resembling ataxia. The bladder was exceedingly irritable; putting the hands in cold water caused the urine to flow; on any excitement also there would be discharge—the weeping penis.

He was troubled also with a great dread of company, especially that of strangers; but, by taking great care of himself, was able to attend to a very large practice; though he was easily prostrated by over-exertion or by mental disturbance. Seven years before he had lost his wife, and had not married again. The urine was examined by Dr. Mittendorf, and found to contain a quantity of spermatozoa. This was somewhat of a surprise to the patient, who is himself an accomplished diagnostician; though at the same time it confirmed his suspicions.

Involuntary emissions had annoyed him before marriage, and had recurred after the loss of his wife seven years before. At times, as is quite frequently noticed in these cases, the penis and scrotum were cold to the touch.

How long the spermatorrhœa had existed in this case can never be known; but as the nervous symptoms had been troubling him for years, it is not probable that the spermatorrhœa was a new complication.

On using the different kinds of local measures that have been referred to in other papers of this series, it was found that the urethra was very irritable indeed, and that unusual caution was needed in the introduction of instruments and application of remedies. Mild electrolysis of the prostatic urethra, and faradization with sounds, being almost the only forms of direct local treatment that were well borne. An urethra in this irritable state is a perpetual source of reflex irritation, for the body: it sets the whole system on fire like an irritable uterus or ovary in woman, and produces very many of the same symptoms.

It seems almost impossible to tell, from the nervous symptoms alone, whether spermatozoa will or will not be found in the urine on examination.

In the following case there were even more symptoms which suggest trouble with the prostatic urethra than in the two preceding cases; and yet, on an examination of the urine, there was found only an excess of phosphate of lime—there was not even excess of oxalates and urates.

Case XIX.—The patient, a young man thirty years of age, had the following symptoms: stiffness of the lower limbs; very much pain in the lumbar spine, in the back of the head and neck, feeling of pressure at the vertex; heat in the spine; soreness of the bottom of the feet—sometimes the heel would feel as though it were a bare nerve; the gums were tender and white; the pupils were dilated; he had nervous dyspepsia; the feet and hands at times were very cold, especially while thinking; the power of mental application was impaired; he was annoyed with ringing in his ears and insomnia, stomachic vertigo, and vomiting; and he had anthropophobia, or aversion to society. A trip to Europe did no good, and while at sea his hands and face would swell and puff up.

I may say also that he was of English birth, and these symptoms came on soon after coming to this country. At one time he had married, and had lost his wife. He formed the habit of masturbating at the age of fifteen, and maintained it regularly for three years to very unusual excess, sometimes committing the act two or three times in quick succession within the space of an hour. At one period, also, he had been excessive with women. For two years had observed a decline in his powers; in dalliance there was prostatic discharge. He was unable to urinate when any one was looking on or waiting for his turn. This last summer the patient had for the first time a full and protracted attack of hay fever in the later or autumnal form.

With all this collection of nervous symptoms there was no evidence, on a single examination, of the existence of spermatorrhœa.

Case XX.—A gentleman, thirty years of age, anæmic as well as neurasthenic, reported that he had suffered for some years from fear of drunken men.* On the horse-cars and in the streets he was in fear of meeting intoxicated persons. The basis of this fear appeared to be the possibility of a row caused by a drunken man. On seeing a person drunk on the ferry-boat, he would go to the extreme end of the boat to avoid him. When a drunken man got on the horse-car where he was, he would at once step off. He dreaded, at certain times of the day, especially when he was exhausted, to go through certain streets, where he was especially liable to meet intoxicated persons. As I have elsewhere stated, these morbid fears are always associated with other symptoms. In this case there were symptoms of excessive itching in the axillæ and on the scrotum; fibrillary contractions; great coldness of the hands and feet; mental depression was also a prominent symptom. He had much muscular vigor, and could walk for miles.

The patient was quite anæmic. As happens with many of these cases, the nerves concerned in the process of erection are abnormally sensitive; crossing the legs and swinging them, or simply riding on the cars, quickly bringing on erections.

Once a month or so, in passing water, he experiences pleasure, as in the emission of semen. There was frequent aching of the limbs, of which such pa-

* These morbid fears seem to be capable of an infinite variety of phases. In addition to the cases that I have already reported in the paper "Morbid Fear as a Symptom of Nervous Disease" (*Hospital Gazette*, July 19, 1879), and to which I may be allowed to refer, I have seen lately a phase of this symptom, the chief peculiarity of which was *unwillingness to go out in the daytime*. He could go anywhere after dark, but was afraid of the light: and all the day was shut up in his house. He first came to see me in the evening.

In this case, as in similar cases, there were no delusions or hallucinations. He soon recovered of this symptom.

tients so often complain, and to which Erb refers in his essay on Neurasthenia.

Urinary analysis in this case found no spermatozoa, very little oxalate of lime or urates, but considerable mucous with pus-cells from the upper portion of the urethra.

Such cases show that there is no constant relation between the nervous symptoms and the ingredients of the urine, at least so far as can be determined by a single examination. The above case advertised his anæmia and neurasthenia in his countenance and bearing and was in reality a severe sufferer, being, indeed, worse than some cases that bore demonstrable evidence of the existence of spermatozoa in the urine.

The Real and the Unreal Hypochondriac.—Few terms are so often misused in medicine as hypochondria. It is applied to almost any symptom complained of by a patient, and doubted or misunderstood by the physician. It certainly would not be improper to call for a definition of this over-used term.

Hypochondria, strictly analyzed, is *groundless fear of disease;* and when the word is used by physicians it is to convey that idea that the disease of which the patient complains does not exist in his case, and that his fear that it does exist, or that it may exist, has no foundation outside of his own fancy.

Thus analyzed, hypochondria is really one of the many phases of morbid fear, and, like other morbid fears, is a symptom of nervous disease, but not a disease itself, although for convenience' sake we call it such. This is true hypochondria or pathophobia, a term justifiable and necessary, and well applicable to many cases; *but it is a decidedly far less frequent thing than is supposed.*

The term is constantly and roughly applied to cases of real, positive, and demonstrable disease, especially functional nervous disease—a sort of waste-basket into which we throw every case that is not described in the books. Symptoms that our senses cannot appreciate, that cannot be seen or heard or touched, and for the existence of which we depend either on the patient's statements or on examinations of the urethra or of the urine, that are not usually made, are referred to hypochondria.

Case XXI.—A young man, twenty-three years of age, began the habit at the age of seventeen, but had never been remarkably excessive. The chief symptoms at the time when he first consulted me were palpitation and morbid fear, aversion to society. On examination the prepuce was found to be elongated, and the lips of the meatus were red and swollen, as is so often observed in disorders of the prostatic urethra. The patient was in other respects well, very strong and muscular, capable of hard and long work at his trade, which was that of an engraver. The functions of sleep and digestion also were normal.

In this case two facts were clear and demonstrable:

I.—That he feared disease more than he experienced it. He stated to me in deep earnestness that until he saw me he had supposed that he was the worst case in the world, and it was hard for him to believe me when I assured him that his was really one of the mildest cases that I had seen for a long time. This, however, was not true, but false hypochondria.

II.—The case is a sample of many persons who are not well, who are truly sufferers from demonstrable though little understood nervous disease, but who, through ignorance purely, add to their real disease a hypochondriasis which is removed at once as soon as they obtain correct information. Such patients are in the condition of a man who has fallen and injured an arm, but fears that a fracture has occurred, until the surgeon appears and makes a clear diagnosis of simple sprain. In strictness this is not hypochondriasis at all. It is the just and inevitable apprehension of ignorance—an intellectual rather than an emotional trouble—and is removed by appealing to the intellect, that is, by informing the patient as to the facts. True hypochondriasis, on the other hand, pathophobia (fear of disease), like morbid fear of all kinds, cannot be removed by instructing the patient in the matter. He knows as well as we that his fear is baseless, and he desires to get rid of it, but is powerless to do so until his exhausted nervous system, of which the morbid fear is a sign and symptom, is calmed and strengthened. Real hypochondriasis, or morbid fear of disease, is rarely or never cured by simply giving the patient authoritative information that there is no ground for his fear. The experiment has been tried for ages by the ablest physicians of the world, and it never succeeds and never can succeed. A genuine hypochondriac may cross the continent and all the oceans to consult some famed physician, so great is his confidence in him; but when, on obtaining the interview, he is told that the disease from which he supposes himself to be a victim does not exist in his case, his morbid fear remains unchanged, he is still pathophobic, and very likely goes around consulting physician after physician.

The two phases, intellectual and emotional fear of disease, may coexist, one form passing into the other. The not being able to rightly diagnosticate intellectual fear from emotional fear of disease is the basis of much unfortunate advice given by good physicians to sufferers of this class.

In the above case there was real objective disease at the basis of the intellectual fear of disease. There was local irritation in the prostatic urethra, induced by his evil habit, and revealed by examination and indicated by symptoms.

In the majority of cases of so-called hypochondriasis there is some real and demonstrable disease at the basis of the mental trouble, and which can always be found if we but look closely and examine into the condition of every part and organ; the term hypochondriasis being quite often a cover for our lack of thoroughness in examination. Very rarely indeed do I see a case of morbid fear of disease where the urine, or the liver, or the stomach, or the prostatic urethra are in health. In some instances, no doubt, the demonstrable physical disease may be, in part, the result of the mental disease, mind acting injuriously on body and exciting lesions that can be appreciated by the senses; but in all such cases the physical malady needs and should receive treatment just as if caused in any other way.

This day I am consulted by a physician in regard to a patient of which the following history is given: He is twenty-four years of age; has masturbated by intervals for several years, but not to very great excess. He has had nocturnal emissions for over two years, sometimes several times a night. He has lately fallen in love, and sought medical advice in regard to breaking up his habit, but was repelled by a number of physicians who made light of his history, until he fell into the hands of the gentleman who consulted me about him. His present symptoms are severe insomnia, one or two wet dreams every night, indigestion, extreme nervousness approximating to hysteria, and a demented look.

If this man is not sick, then there is no such state as sickness: if these symptoms are not pathological,

then small-pox is health. If a sufferer with such a history is to be dismissed without either examination or diagnosis, then typhoid fever and broken limbs should be allowed to get well of themselves, or put under so-called "moral treatment." In this case the diagnosis was confirmed by the results of medication. Under a proper use of sedatives, directed not to the mind, but to the body, he soon became better, and was still improving, though not well, when my attention was brought to his case.

Case XXII.—A young man, twenty-one years old, the son of a physician, began the evil habit when fifteen, kept it up for a year, then stopped suddenly, and in six months came emissions twice weekly.

When he consulted me, he had very many of the diagnostic symptoms of sexual neurasthenia, fear of society, both of men and women, but especially of women; mental depression and tremor of the hands under excitement, and the characteristic atonic voice. His muscular strength was unaffected; he could walk ten miles with ease. The irritability of the genital organs was extreme. At one time he would have emissions even while sitting up, if lascivious thoughts occurred; the weeping penis was noticeable. At one stage of his malady he had had emissions as often as ten or twelve nights in succession.

There is in the above history nothing peculiar or anomalous; it is the history of thousands; but it is instructive and worthy of consideration because it is typical. When a physician has in his own family a case of this kind, and sees him from day to day, and finds himself powerless to help or even relieve; when he sees the symptoms that he has been taught to believe are purely subjective—of the fancy only—growing worse and worse, unfitting the sufferer for life duties, he begins to inquire what can be done; and if he looks closely into the facts, he will find that there is a substratum of reality beneath all these symptoms which cannot be blown away by a word, or dissipated by "moral treatment." If the case were an ordinary patient, he could simply dismiss him as a hypochondriac, tell him, as the books require, that nothing is the matter with him, that he is well enough if he will but think so, and the patient goes his way, and he sees no more of him. He may suppose that his advice has done good, that it has been followed; but if he should keep track of that patient, he would see him passing from his office to the office of some professional brother, and so on, and so on, until he falls, by a force as inevitable as gravity, into the hands of the charlatans, who usually go to the other extreme, and tell the sufferer that unless he takes their advice, he will be dead in six months.

In one's own family, or in one's own person, responsibility cannot be shirked in this way; the evil is ever present with us, and forces us to give it attention. A physician whose son has been under my care for sexual neurasthenia, tells me that he has himself been constantly depressed by seeing the depression of his son without being able to relieve it. In this case the diagnosis of hypochondria had been made again and again; but when his urine was examined by Dr. Mittendorf, if was found to contain spermatozoa to the amount of 20,000 in a specimen of a few ounces, and portions of the urethra were as sensitive as a bare nerve. There was also a redundant prepuce. If all this is hypochondria, then death is hypochondria.

Take the following case, also the son of a most intelligent physician:

Case XXIII.—The patient was seventeen years of age, and had been attending school, and the important question which I was to decide was, whether he should go on with his studies or suspend them.

The boy began masturbating at the age of fifteen, but had never, according to his own statement, been very excessive. When he first came to my office he burst into tears, and cried almost like an hysterical woman. He had palmar hyperidrosis and some fear of society; there was likewise chronic injection of the conjunctiva. On examining into his case I gave positive advice that he should go back to his school, meanwhile taking general and local treatment. The results have confirmed the soundness of this advice. He began to improve from the first visit, and resumed his studies with zest. In the space of a month, more had been accomplished, keeping him at work and giving him advice and treatment, than in many months of a long vacation that he had occupied in rowing, riding, walking, and various out-door exercises.

In such cases the mind is acted upon, whatever treatment we use. This cannot be avoided, nor is it desirable to avoid it; but the mental therapeutics is not necessarily the only or even the chief element in the cure, any more than it is in any other disease. Indeed, judging from my own experience and experiments, it would seem that *almost all forms of functional nervous disease are more amenable to mental influence than these cases of sexual exhaustion.* No class of patients that consult us are in greater need of definite and well-directed medical treatment than these, and no class of diseases of the nervous system respond better to such measures. These cases are mostly relievable and curable, but, to accomplish relief and cure, we need positive, objective, and, in some instances, powerful treatment.

POISONING BY INOCULATION FROM AN ANIMAL.

By C. H. HUNT, M.D.,

STANWOOD, IOWA.

The history of this case is as follows: Mr. R——; occupation, farmer; aged forty years; dark hair and complexion; tall, heavy-set; bilious temperament, temperate habits, and enjoying good health; while engaged in killing a hog, cut the third finger of the right hand, on the second joint, on the side next the little finger. The cut was one-half inch in length, and about one-sixteenth of an inch in depth. This occurred about three o'clock in the afternoon. As the wound did not bleed, no attention was paid to it at the time. The next day, about the same hour that the cut was made, while the patient was husking corn, the finger began to be painful; in a few minutes a heavy chill followed, the head began to ache, and he grew so weak that he was obliged to sit down on the ground. It was with difficulty that he reached the house. I saw the patient at seven in the evening. Found him sitting near a hot fire, covered with blankets, and shivering with cold, which, he said, had been pretty severe since five o'clock. The finger was swollen and painful, the lymphatic vessels could be traced from the finger to the shoulder, presenting red and inflamed lines; the axillary glands were swollen and very tender. There was headache, pain in the stomach and back; no vomiting had occurred; pulse 120, and presenting the same feeling as it does during an ague chill. Temperature was not taken. Gave him two ounces of whiskey, in which was dissolved one-half grain of morphine. In fifteen min-

utes the whiskey was repeated, and he was put to bed. This procedure was a source of much distress to him, as the least movement would cause the muscles of the whole body to ache, as if he had taken an overdose of strychnine. In half an hour the patient began to grow warmer, and his skin was becoming moist. The whiskey and one-fourth of a grain of morphine was repeated, making six ounces of whiskey and three-fourths of a grain of morphine in one-half hour. The patient feeling somewhat better, I left him, ordering two ounces of whiskey every two hours and one-quarter grain of morphine every three hours.

The morning found him better. During the night he had had a severe cramp of the stomach, which lasted about fifteen minutes. He had also taken two grains of morphine, but had not slept any. The morphine was dropped now, but the whiskey was kept up during the day and then discontinued, and nothing was given except some pills to correct the condition of the bowels.

To all appearances the animal killed was healthy, and none of those who partook of it as food suffered in any way.

The symptoms produced by this wound was like those produced by dissecting wounds; but why the flesh of a healthy hog should cause such a difficulty puzzles me somewhat; perhaps some one can enlighten me.

The *modus operandi* of alcohol upon animal poisons must be in one of two ways, as has been stated by others. Either the alcohol destroys the active principle of the poison by contact, or it places the system in such a condition that the poison has no action upon it; probably the former is true. Morphine undoubtedly acts in the same way, as may be witnessed in the treatment of certain diseases caused by septic poisoning.

THE ILLUMINATION OF CAVITIES BY GEISSLER'S TUBES.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

The stratification of the electric light, by passing a discharge of the Ruhmkorff coil through glass tubes containing a highly rarefied vapor or gas, has been very satisfactorily investigated by Masson, Grove, Gassiot, Plücker, etc. The tubes made by Geissler, of Bonn, are filled with different gases or vapors, and exhausted so that the pressure does not exceed half a millimetre. At the ends of the tubes are two platinum wires soldered into the glass. The striæ given by hydrogen under half a millimetre of pressure are white in the bulbs and red in the capillary parts. The striæ in carbonic acid under a quarter millimetre of pressure are greenish. In nitrogen the light is orange-yellow. According to Ganot, "Plücker has found that the light in Geissler's tubes does not depend on the substance of the electrodes, but simply on the nature of the gas or vapor in the tube. He has found that the lights furnished by hydrogen, nitrogen, carbonic oxide, etc., give different spectra when they are decomposed by a prism. The discharge of the coil which passes through a highly rarefied gas would not pass through a perfect vacuum, and the presence of a ponderable substance is absolutely necessary for the passage of electricity. By the aid of a powerful magnet Plücker tried the action of magnetism on the electric discharge in a Geissler's tube, as Davy had done with the ordinary voltaic arc, and obtained many curious results. He found, where the discharge is perpendicular to the line of the poles, it is separated into two distinct parts, which can be referred to the different action exerted by the electro-magnet in the two extra currents produced in the discharge." It remained for De la Rive to prove, in a most ingenious manner, that magnets act on the light in Geissler's tubes in accordance with the laws with which they act on any other movable conductor. As the intensity of the light does not depend upon the number of elements used, it is best to use a discontinuous current with a single element. With the aid of a duck-bill fenestrated speculum, wherein the blades are of the lightest possible construction, very gratifying results may be obtained in the illumination of the vagina. Two bulbs armed with platinum wires are soldered to a capillary tube; this tube is bent in the middle so that its branches may touch, and at its extremity is twisted upon itself. It is then filled with a rarefied gas, and when the discharge passes through, a very brilliant light appears at the twisted end of the tube. In its use there is no inconvenience to the physician and no discomfort to the patient. Abnormal conditions of the external os, and even those derangements which are due to intra-uterine disorder, may be clearly made out. With a sufficiently long capillary tube, the entire cavity of the womb may be brilliantly illuminated.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

WAS IT A CASE OF PULMONARY PHTHISIS?

The following case was exceedingly interesting as illustrating the difficulty and importance of correct diagnosis:

A female patient, eighteen years of age, said that she was ordinarily well, though not very strong, up to four months ago, when she "was taken with a fever." The fever first appeared towards evening, was preceded by a "chilly and cold sensation," and after it had continued for a short time she began to sweat nights—usually about midnight—and also in the daytime, if she went to sleep. These symptoms continued for about three weeks, when she began to cough. The cough was hacking in character, and continued two or three months before she began to "spit up anything." In the meantime she lost flesh and strength. Last week, for the first time, she spat up a small quantity of dark-colored blood. It was then her time to be unwell, but the menstrual flow did not appear. At that time she had nose-bleed. Since she has been sick her menses have been irregular.

The three prominent points in this history are the following:

1. The patient has had a fever during the past four months, which was preceded by chills, and followed by sweating in the night at about twelve o'clock. With this fever there has been considerable loss of flesh and strength.

2. Soon after the fever began she commenced to have a dry, hacking cough, and her menses became irregular.

3. She went on in this manner until last week,

when she spat up a small quantity of dark-colored blood, and at the same time had epistaxis. She had had pain in the left side that had been increased upon taking a long breath.

Physical Examination.—Her hands were cold, her skin was getting yellow, the pulse was increased in frequency, and her temperature was a little less than 100° F. The temperature in this case was regarded as a very important element—one that would decide important questions relating to prognosis. There was some sweating at night, and it must be decided whether the fever from which she had suffered during the past three or four months, and from which she was then suffering, was malarial in character, or whether it was hectic. If it was merely malarial the sweating was due to depreciation of the vital forces, and had a much less grave significance than when it appeared as one of the factors of true hectic.

But it was said neither the presence of pus nor breaking down of lung-tissue are necessary in order to have hectic fever: for hectic is one of the early and prominent symptoms of tuberculosis. It appears before any local signs of pulmonary phthisis are obtained, when tubercle is its cause. If, however, the temperature of an individual is taken, who has sweating at night dependent upon tuberculosis, it will be found that it is elevated *during the day.* He has fever either in the fore part or in the after part of the day, and when he comes to the night, whether sleeping or waking and coughing, he will have profuse perspiration.

On percussion there was slight loss of pulmonary resonance upon the left as compared with the right side, under the clavicle.

On auscultation there was found, anteriorly, upon the left side, prolonged expiration, a wavy inspiration, but no râles; and there was no bronchial character to the respiration. On auscultation posteriorly, a few râles underneath the scapula were heard, but evidence to much extent of pulmonary consolidation was not obtained—the only evidence being prolonged expiration, and, in her case, it was that that was due partly to obstruction in the bronchial tubes and partly to some change in the lung-tissue itself.

The slightly prolonged expiration and the slight dulness upon the left side of the chest lead to the suspicion of the existence of some localized point of lung consolidation. The evidence, however, was only slight, and was questionable. It was thought that the other physical signs simply indicated a localized bronchitis which interfered with the entrance of air into the lung-tissue. The wavy character of the breathing disappeared when the patient took a full inspiration. There was a loud blowing murmur at the base of the heart, and it extended into the carotids.

On auscultation at the lower portion of the chest, evidences of pleurisy upon the left side were found; that is, distinct friction-sounds were heard at the end of inspiration.

The patient had no hereditary tendency to lung disease. She had but little vitality; had become pale from the examination, and almost passed into syncope. She presented herself with a temperature of less than 100° F., but the probabilities were that it rose as high as 100° F. at some time during the twenty-four hours. The fever at first appeared every other day, but during the last week its presence had been recognized every day. The physical signs are scarcely indicative of more than simple bronchitis with slight pleurisy upon one side.

The fever at the same time did not seem to be that constant fever which is the accompaniment of phthisis.

It was doubted whether one who had had phthisis for three months could present himself with a temperature no higher than 100 or 101° F.

It was believed that the present condition of the patient led away from tubercular phthisis. The countenance was more like that of a chlorotic girl than of a patient suffering from phthisis.

The fact that the blood which she raised was of a dark color, not bright red and frothy, was expectorated at the time for the occurrence of the menstrual flow, and was accompanied by epistaxis, it was said, lead away from a diagnosis of phthisis.

Again, the physical signs were not sufficient for pulmonary phthisis. The important point to be determined was whether or not there was dulness upon the left side. There was a difference in percussion note upon the left side when compared with that obtained upon the right, but whether the deviation in pitch was due to pleurisy affecting the lower portion of the left lung, thus intensifying the resonance over the upper portion of the lung, or whether it was due to increased respiration in the right lung, was the question to be decided.

There were no evidences of catarrhal phthisis.

The case was treated on the basis that it was not one of phthisis.

Although the patient was in a condition which might lead to its development, she was treated in accordance with the view that there had been introduced into her system some poison, perhaps septic in character, which had given rise to an irregular form of fever. For it quinine was recommended, and she also received some preparation of iron.

The hygienic management of the case was regarded as exceedingly important.

EARLY SYMPTOMS OF PULMONARY PHTHISIS.

Age: Occurs most frequently between twenty and thirty years of age. *Cough:* Hacking, with little or no expectoration. *Cough:* Continuing for several years without being accompanied by a morbid aspect, can, with considerable safety, be set down as against phthisis. *Progressive loss of flesh* is suggestive of phthisis. *Successive pains* in the upper part of the chest and between the shoulders, is significant of phthisis.

Hæmoptysis of itself is very significant, but its absence does not exclude phthisis, nor does its occurrence necessarily indicate the presence of that disease. It has a greater significance when it is preceded and succeeded by a cough.

Persistent elevation of temperature, and persistent increased frequency of the pulse.

Physical Signs.—They are such as indicate slight solidification of lung at the apex on either side, and circumscribed bronchitis limited to the neighborhood of the phthisical affection.

1. Dulness upon delicate percussion.
2. Feebleness of respiratory murmur, or slight broncho-vesicular murmur.
3. Increase of vocal fremitus, and increase of bronchial whisper.
4. Accessory signs; subcrepitant râle limited to upper part of chest on one side, and perhaps at the summit of the chest; pleuritic friction-murmur; true crepitant râle limited to the upper part of the chest; gurgling or crackling sounds limited to the upper part of the chest. All these, or any one of them are important in connection with the history and the other signs mentioned.

BISULPHIDE OF CARBON FOR THE PAINS OF LOCOMOTOR ATAXIA.

A male patient, æt. 45, began to have symptoms of his present disease about fifteen years ago. He has locomotor ataxia, and has suffered until quite lately from excruciating pains in his limbs. He has no double vision, but has slight nystagmus. There was marked delay in communication of sensation to the brain from the feet, five or six seconds passing after the foot had been pricked before the sensation was experienced. Besides, there was persistent sensation, the pricking being felt for some time after it had been done. There was also inability to locate impressions correctly. He had not had any trouble with his bowels or bladder, and his sexual desire and capacity were unimpaired. There was no tendon reflex.

By the pains he could predict accurately concerning the weather. For the relief of the fulminating pains, he had resorted to the actual cautery, a variety of remedies, among them gelsemium, which relieved him for a time, and hypodermic injections of morphia. The hypodermic injections impaired his nutrition and produced delirium. All remedies used were discontinued, and for them the bisulphide of carbon was substituted, and, applied to the spine, gave, as the patient claimed, complete relief from all pain.

A second case of locomotor ataxia was seen, in which there was delayed sensation, and also delayed reflex absence of tendon reflex; no double vision, no trouble with bladder or bowels, but marked contraction of pupils. The patient was a midwife and the mother of twelve children.

PROFOUND COMA — CYANOSIS — DYSPNŒA — PULMONARY ŒDEMA — VENESECTION — PROMPT RELIEF.

A male patient, æt. 48, was admitted to the hospital in a comatose condition, and besides was intensely cyanotic and had great dyspnœa. According to the history given by his friends, he had an attack of pneumonia about a week before admission, but when admitted the chest was full of fine and large râles, yet gave no evidence of pneumonia. The heart was much enlarged, the pulse was tense, but no cardiac murmurs could be detected, although a very careful examination was made. Death seemed imminent. The house-physician opened a vein in the arm and took *twelve* ounces of blood. The effect was prompt; the dyspnœa and cyanosis were at once relieved, and the evidence of pulmonary œdema entirely disappeared within half an hour. The most urgent symptom being relieved, it was found upon further examination that the patient had left hemiplegia. The urine was examined and found to contain albumen in small quantity, granular casts, had a pale color, was acid in reaction, had a specific gravity of 1010, and the quantity passed was large.

There was incontinence of urine and involuntary evacuations from the bowels.

On the day following admission, elaterium was administered. After the operation there was a partial disappearance of the coma, but the patient's intellect still remained impaired.

It was believed that the life of the patient was saved by the venesection. The specific gravity of the urine varied between 1010 and 1014.

EMPYEMA WITHOUT MARKED CONSTITUTIONAL DISTURBANCE, AND GIVING RISE TO ONLY MODERATE DYSPNŒA.

A case of empyema, occurring in a male patient about twenty-five years of age, presenting interesting features relating to physical signs and symptomatology. It had the following history: About two years ago he began to cough, spat some blood, had a pain in his side, suffered from night-sweats, but all the acute symptoms passed away within two weeks, and he felt comparatively well. At the end of six months his left side began to swell, and he had moderate dyspnœa. He continued in that condition until March last, when he was tapped; fluid was drawn from the pleural cavity, and the tapping has been repeated. At the present time he feels well, has a good appetite, sleeps well, but suffers still from dyspnœa, and came for the purpose of finding out whether or not fluid had reaccumulated, and if he could be relieved by an operation. On physical examination, the heart was found displaced to the right so far that the apex was beating under the right instead of the left nipple. There were no cardiac murmurs. On percussion and auscultation it was found that the level of the fluid was about two inches above the angle of the scapula, not sufficient in quantity to account for the displacement of the heart. It was believed that the position of the heart represented a condition in which the chest contained more fluid than at present, and that, while so much displaced, adhesions formed which retained it in its abnormal position. The case was one of well-marked empyema [purulent fluid was withdrawn], yet the patient's general condition was very good, and he complained only of moderate dyspnœa. Prognosis was unfavorable. Two plans of treatment were mentioned: *First*, repeated aspiration; *second*, free incision through the chest-wall, and washing out the pleural cavity. In view of the man's good general condition and age, it was advised to first resort to repeated aspiration, and, if marked improvement was not manifest within a few weeks, to make a free incision through the chest-walls with the view of giving him the best chance of recovery.

Progress of Medical Science.

A NEW MODIFICATION OF THE SHOT-BAG FOR COMPRESSING ARTERIES.—Dr. A. F. Sawyer, of San Francisco, describes a modification of the shot-bag, which he considers has certain advantages over the methods of compression in ordinary use. It consists of a strong canvas bag three inches in diameter by two and a half feet long, the lower extremity closed by a hollow caoutchouc ball two and one-half inches in diameter, the bag being capable of containing twenty-five pounds of fine bird-shot. The apparatus is suspended from the ceiling in the usual manner, a strip of soft buckskin being placed over the skin to guard against chafing. In the case in which the apparatus was tested, its pressure was well borne, although digital and various instrumental pressures were impossible. The application was continued for six hours and ten minutes, when all pulsation in the tumor (popliteal aneurism) ceased. The advantages claimed are rapid work, accurate guaging of the force employed, and the comfort with which it is borne by the patient.

CELLULITIS OF THE NECK.—A consideration of the literature of this subject, together with the results of his own experience, lead Mr. R. W. Parker to suggest the following as a suitable classification of this affection: 1. Idiopathic (angina Ludovici); 2. Trau-

matic, occurring after injuries and operations; 3. Extension of contiguous inflammation. The idiopathic form is a dangerous, and, most frequently, a fatal disease, occurring concurrently with other and more common forms of epidemic disease, such as erysipelas, measles, scarlet fever, and "putrid sore throat," yet, in the most marked cases, the tonsils and pharynx are described as having been normal. The treatment should be bold and prompt; free incisions into the indurated cellular tissue, deep enough to open up the various sheaths of the deep cervical fascia, must be carefully made, so as to let out the sanious ichor, and thus prevent its burrowing. Surgeons are well acquainted with the traumatic form of cervical cellulitis which is apt to make its appearance after all kinds of injuries to the neck. In its treatment Mr. Parker has found the greatest benefit from the use of liquor plumbi made into a lotion with milk instead of distilled water. The most common form of the disease is that due to the extension of a contiguous inflammation. In its treatment, the fact must be borne in mind that much of the danger arises from the inflammation being seated beneath the deep cervical fascia, the undermost layer of which is continuous with the pericardium.—*The Lancet*, Oct. 25, 1879.

Some of the Sequelæ of Sunstroke.—Recovery from sunstroke is frequently incomplete, owing to structural changes in the nerve-centres, giving origin to a variety of symptoms indicative of lesions of a grave character. Sir J. Fayrer, F.R.S., considers these sequelæ more common and more serious than is ordinarily supposed, and he cites some cases whose histories tend to support his position. The apparent restoration to health so often witnessed after attacks of this nature is, in many cases, neither lasting nor real, as a careful examination of their subsequent histories will abundantly show. Relapse and death may occur, or secondary consequences, the result of tissue-changes, may destroy life or impair health and intellect at a later period. Insanity is one of the gravest and most frequent sequelæ of sunstroke. The cases brought forward would seem to show that this is of an acute inflammatory character, attacking the membranes of the brain, and thus the gray matter, so that we find the mental symptoms more clearly defined than the physical. How far an alteration of structure of bony growth may be traced to *coup-de-soleil* is a matter for further consideration; in all the cases the diploë has been found obstructed and the skull-plates thickened, dense, and heavy, with, in two cases, distinct growth of bone; but both these cases are involved in their etiology—in the one case by an early injury, in the other by a decided hereditary taint.—*Brain*, October, 1879.

A Pistol-Bullet Encysted in the Brain.—Dr. John E. Gibson, of Nashville, Tenn., reports an autopsy which he made upon a convict who had been shot in the forehead in the year 1874. Cerebral inflammation had set in after the accident, but recovery ensued, and no ill effects, either physical or mental, were observed up to July, 1879, when a short illness of four days terminated in his death. The following is the account of the autopsy:

"Rigor mortis well developed. Removed calvarium in the usual manner. The wound in the os frontis was closed with cartilaginous matter. The membranes of the brain were in a state of extreme congestion. The right anterior lobe was fully one-third smaller than the left. Considerable effusion containing flakes of lymph found upon the surface of the brain. On making a section of the cerebrum, found a canal running directly through the right anterior lobe, in an antero-posterior direction. The canal was patent throughout, and formed apparently of cicatricial tissue. It stopped about the centre of the right anterior lobe. At its termination was found the bullet, flattened from its contact with the skull. The bullet was enclosed in a sac that seemed to be attached by a pedicle to the upper wall of the canal. The space in which this hanging cyst had play was considerably greater than the diameter of the canal. Two spicula of bone were found just behind the ball, carried there before it. About the centre of the anterior lobe another spiculum, about the size of a ten cent piece, was found."—*Nashville Journal of Medicine and Surgery*, November, 1879.

Automatic Medical Electricity.—Dr. Francis Imlach, in the *Practitioner* for October, describes some very ingenious and useful devices for the application of electricity to paralytics. His thesis is this: "Take a hemiplegic patient, and by automatic electric arrangement, make him raise the dragging limb as he walks, and stand as firmly upon it as upon the other; or make a paraplegic patient in whom, for the present, walking is out of the question, rhythmically flex and extend his limbs by alternating electrization of his flexors and extensors—you do more than merely electrize the paralyzed muscles; his expectant attention is directed in turn to each moving limb, and an effort of will is aroused as the oppressive sense of habitual inability is removed." The writer claims to have proved by the use of his apparatus the truth and practical value of these statements. For treating hemiplegias, he uses a faradic battery, electrodes, wires, and an electric sandal. The electrodes consist of flat pieces of thin, flexible metal, quite narrow, and varying from three to five inches long. These can be tied on to any part of the back or extremities; the sandal is made of boxwood and metal, fastened to the naked heel and connected by ordinary insulated wires with the battery and the electrodes. In the case, now, of a left hemiplegic, where it is desired automatically to contract the muscles of the back of the thigh and calf of the leg, the sandal is fastened to the *right* foot. One electrode is then fastened to the back of the thigh, and another to the back of the leg, both being connected by wires with the sandal and the battery. When the patient, in stepping forward, puts his right heel down, connections are made, a current passes between the two electrodes, contraction takes place in the thigh and leg muscles of the left extremity, which is thus raised up. As the patient progresses the right heel is raised, the current broken, and the left extremity falls naturally forward. This process is continued every time the right heel presses the floor, the left leg and thigh being contracted. Of course the patient can walk no farther than the long wires connecting him with the battery allow, and the exercise must thus be taken indoors. By pursuing the practice, however, for fifteen or twenty minutes every day, very rapid progress is made toward recovery of the full power of the muscles.

By changing the electrodes and sandal, any sets of muscles can be made to contract; and by the use of two sandals paraplegics and ataxics can be treated with much, though not equal, benefit.

Dr. Imlach has a number of other arrangements acting on the same automatic principle, by which various other forms of paralyses can be treated. His idea is evidently a good one, and will probably meet with much favor.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 6, 1879.

ASYLUM MANAGEMENT.

To such as are interested in lunatic asylum reforms, the recent report of the Senate Investigating Committee has a significant interest. It will be remembered that in March last a petition, purporting to be signed by over two hundred citizens, among which were several medical men, was presented to the State Senate, praying for an investigation into the present system of managing the lunatic asylums of the State. This document emanated from and received the endorsement of the New York Neurological Society. The profession, knowing the character of many of the members of this body, had a hope that much good would come of the course taken, and awaited events accordingly. It is true, some of the charges against the asylum superintendents were extravagant; but in the main, the profession were prepared to believe that some of them could be properly substantiated.

The Senate acted promptly, and referred it to a committee to take testimony with the view of suggesting any necessary measures of reform. That committee went at the investigation in a very matter-of-fact way, by summoning the petitioners to testify concerning the faith within them. Here, however, we come to a part of our story which, although amusing to the general public, is hardly creditable to the profession. We learn, in the first place, that many of the petitioners wished to withdraw their names, stating that they signed the document under a misapprehension. Among these petitioners were several medical men. But what appears stranger than all, is the fact that one or two of the gentlemen who were active in circulating the petition and obtaining signatures thereto, declined to appear before the committee and give their testimony. All this was very bad to begin with, and naturally made rather an unfavorable impression upon a Senate committee prepared to investigate what appeared to be grave charges, made by a responsible body of scientific gentlemen.

If the comparatively few who had the moral courage to stand up to the rack, had an equal amount of good and available testimony to offer for their side, the investigation might at least have been creditable to all concerned. As it was, however, the complainants were so much at a loss for available facts, that they seemed more inclined to apologize for the course they had taken, than to make a show of acting on the offensive. The whole affair degenerated into a farce in which the would-be reformers were the unfortunate actors. The only redeeming feature in the examination was the skill shown by one or two witnesses in making a great deal out of a very little. But this, as far as testimony was concerned, was of itself a confession of weakness. It is true the medical superintendents were out in full force, and volunteered the cross-examination; but the petitioners should have been forewarned of this, and should have been prepared to fight even against such odds. Well-substantiated facts could not be overthrown by any purely political influence which the superintendents might have brought to bear, nor by any well-balanced argument of the accomplished Commissioner of Lunacy. The Legislative Committee did not show any disposition to suppress facts which might be presented, but evidently tried its best to obtain them from the gentlemen who were willing to testify. As far as the printed testimony shows, the complainants had no facts of real importance; at least, if they had, they did not offer them in their examination.

In view of the opportunities which they might have seized of showing up asylum abuses, and of demonstrating the necessities for reform, the petitioners lost an opportunity of creating a proper public sentiment. For this failure they are accountable to the profession they assumed to represent. More than this, they have aroused on the part of the public a spirit of actual antagonism against any demands for reform in asylum management which will take a long time to overcome. Our legislators can desire no better excuse for lending a deaf ear to the entreaties of petitioners than is afforded by the results of the investigation of the Senate Committee and of the comments thereon, which have been made by the secular press.

The published report of the Committee is quite voluminous. On this account we abstain from reproducing it in full, being content with such a general commentary of its contents as will explain the reasons for the following conclusions of the Senate Committee:

First.—The petition is not substantiated in its allegations by any existing state of facts. The Governor, in his last message to the legislature, has spoken of the satisfactory condition of the State asylums from personal visitation.

Second.—The Board of State Charities, an official visiting body, has never suggested any such defects

or maladministration of any kind, in their annual reports to the Legislature. A special committee of that Board (President M. B. Anderson, of the Rochester University, and E. W. Foster), after examining the State asylums with reference to similar insinuations and allegations, reported on December 15, 1877, that "the community is justified in having entire confidence in the administration of these institutions."

Third.—It appears from the archives of the State Commissioner in Lunacy, as well as from his personal statement before the committee, that since the creation of this office no formal complaints have at any time been made or filed with him against the management or internal administration of any State asylum; and his reports and personal statements before the committee show that no occasions calling for special criticism upon such management or administration have, up to this time, presented themselves.

Fourth.—The insinuation of the petition that the superintendents of these State asylums are not thoroughly trained and thoroughly competent medical men, is too notoriously untrue to require denial.

Fifth.—It is not true, as alleged in the petition, that undergraduates in medicine have been appointed as assistant physicians in State asylums. The charge is a reckless misrepresentation of these officers, and under examination the four persons appearing admitted this. From the statements of the superintendents of asylums, it appeared that in almost every instance assistants have received training in civil or military hospitals, and in other cases an equivalent in medical practice after graduation. Outside of the State asylums it appears that but one undergraduate is employed, and that he obtained his place by examination as to qualifications by the authorized medical examining committee of the institution in which he is employed.

Sixth.—In the judgment of the committee, there is no necessity for investigation or examination into the management of any of the State lunatic asylums. This petition sets forth nothing new or valuable, and all the persons signing it, as far as the committee have been able to ascertain, have no personal knowledge of these institutions, or of the allegations made in the petition, and many of them are so obviously and grossly untrue, that they would seem to be the offspring either of ignorance or malice. In either case they are unworthy of notice.

Seventh.—The assertion that the pathological work done in the asylums is of little account, is sufficiently met by a letter addressed to the committee by Professor John C. Dalton, of New York, who stands in the front rank of his profession as a representative of scientific research, and by the testimony of Dr. Bucknill.

THE TENEMENT-HOUSE IMPROVEMENTS.

No one can avoid feeling the deepest satisfaction at the results already accomplished in the improvement of the tenement-houses and of their inhabitants. It is only a year ago that the condition of a very large number of these dwellings was utterly disgraceful. One thousand, it is estimated, were not only unfit for habitation, but incapable of being made into proper dwelling-places. Only one-tenth of the tenement-houses were in perfect sanitary condition.

Since the agitation of the matter last spring a number of important measures have been accomplished or put under way. In May the State Legislature passed a law amending the Tenement House Act. By this law no dwelling-house can occupy more than sixty-five per cent. of the lot. The space between floor and ceiling must be at least eight feet; each bed-room must have direct communication with outside air, and every occupant must be allowed six hundred cubic feet of air. Money was also appropriated for a sanitary inspection of the tenement-houses. The passage of this law has had already a remarkably good effect. Builders are putting up better buildings; the sanitary inspection has resulted in securing complete records, with diagrams of the construction and condition of the twenty-one thousand tenement-houses in the city. This is a feat which, so far as we can learn, no other great city has accomplished.

Something has also been done in the way of building new model tenement-houses. Two stock companies have been organized; one has collected subscriptions nearly to the amount of $300,000; the other has received subscriptions amounting to $75,000. Each of these companies expects soon to commence the erection of one or more blocks of model tenement-houses. Experiments in Brooklyn have shown that small two- or three-story houses can be put up for $1,100 a piece. These, at a rental of from $13 to $20 per month, could be made to pay good dividends in upper New York. Four of them can be put on a lot of 25 by 100 feet.

It seems, however, that there are more projects for building than actual work, as far as this city is concerned. The land costs too much. It is probable, therefore, that in the improvement of dwellings for our poor, more of the work will have to consist in seeing that future tenement blocks do not violate State and sanitary law; and, further, in seeing that the houses already built are kept clean, and that sanitary instruction is given to the lower classes. This latter cannot be too strongly insisted on. Already much good is noticed by the Health Board inspectors as the result of their visits, advice, and circulars. The plan of buying or leasing old and dirty houses, and putting them under strict sanitary regulations, in the few places where it has been tried, has

worked wonders, not only to the health, but the morals of the population. It seems to be the rule that a community is virtuous and well-behaved in inverse proportion to the amount of dirt that environs its life.

The project of giving sanitary instruction to the poor has met with so much favor that an association is to be organized for the purpose of forwarding this end. Such a society could, undoubtedly, do much good. But it will have also many difficulties to encounter. There is a large proportion of the poor, and especially the foreign poor, who will not be taught cleanliness. They will have to be compelled to it; and such compulsion must come chiefly through the landlords. It is this class, a class representing $200,000,000 worth of property, who must be appealed to, and who have it in their power to secure the greater benefits to the city. The general public sentiment, and the increased activity of the Health Board will assist toward the desired ends of sanitary instruction and reform; but there is much hard work to be done before the best possible results can be reached.

Reviews and Notices of Books.

THE TREATMENT OF DISEASE BY THE HYPODERMIC METHOD. A Manual of Hypodermic Medication. By ROBERTS BARTHOLOW, M.A., M.D., LL.D., Professor of Materia Medica and General Therapeutics, in the Jefferson Medical College of Philadelphia; author of a Treatise on Materia Medica and Therapeutics, etc. Third Edition. Enlarged. Philadelphia: J. B. Lippincott & Co. 1879. Pp. 249.

THE author of this volume is to be congratulated upon the amount of information on hypodermic medication that he has condensed in this book. While almost every practitioner of medicine now carries his hypodermic syringe with him, it is seldom used except for the introduction of the salts of opium, and even those who may desire to make a more general application of this method are prevented from a want of knowledge of the solution to be used, the dose, and physiological effects. To all such, this book will prove of great value. It is divided into two parts, one on "The History, Technology and General Therapeutics of Hypodermic Medication:" the other on Special Therapeutics, and consists of twenty-three chapters on those substances that may be used hypodermically, giving under each drug the solution or solutions that may be used; second, the dose; then the physiological effect, and lastly the "Therapy." In this third edition he has added a chapter on the morphia habit and its treatment, one on chloroform, chloral hydrate, apomorphia, pilocarpine, duboisia, and aquapuncture. He has omitted to make any mention of the use of whiskey in hypodermic injection, an omission we wonder at, as its use is much more general than many of the substances he had treated of.

Our author enters his protest against allowing patients to use a hypodermic, and considers it one of the most common causes of the opium-habit. The book throughout shows the result of close observation and study, being the record to a great extent of his own observations on the physiological and therapeutic effects of hypodermic medication. It is a book that will well repay a careful perusal.

GUIDE TO THE EXAMINATION OF URINE, WITH SPECIAL REFERENCE TO THE DISEASES OF THE URINARY APPARATUS. By Prof. K. B. HOFFMAN and Dr. R. ULTZMANN. From the Second Edition, translated and edited by Prof. Forchheimer. Cincinnati: Peter G. Thomson. 1879.

THIS little book, as the authors state in the preface to the first edition, is intended not for the physiological chemist, but for the student and the busy practitioner, and it is undoubtedly well adapted to supply the needs of both those classes of the profession. The various tests for the urine, and the methods of examination, are described concisely and clearly, so that they can be readily grasped by the mind of the beginner, and at the same time with sufficient exhaustiveness to satisfy the practitioner who wants to refresh his memory concerning them, without too much expenditure of time. The subjects are treated in the usual sequence: first, a brief chapter on the histology of the urinary apparatus, then compact descriptions of the physiological properties and chemical composition of the urine, of the abnormal constituents found in it, and of the methods of qualitative and approximate analyses, and finally two chapters on the diagnostic signs in general and local diseases furnished by the urine. The book seems in all respects to be fully up to the times. The translator has done his work fairly well, but without any attempt at elegance of diction. The one great fault of the book is the insufficient number of the illustrations, which should form a very important part in all treatises on the examination of the urine. We must mention, however, that the few illustrations given were interpolated by the translator, the German editions having contained none at all.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

SURGICAL SECTION.

Stated Meeting, Nov. 11, 1879.

DR. LEWIS A. SAYRE, CHAIRMAN, PRO TEM.

THE Section was called to order at 8 P.M., and the minutes of the last stated meeting were read by the Secretary, DR. A. B. DE LUNA.

UNUSUAL DEFORMITY OF THE HAND BY CICATRICIAL CONTRACTION.

DR. A. C. POST reported a case of unusual deformity of the hand occasioned by cicatricial contraction following a burn. One year after a burn received on the back of the hand, the little finger was found behind the ring-finger, and was held in that position by a dense band which extended across to the index finger. By dividing the band and securing the hand to a splint, he succeeded, in the course of a few weeks, in entirely overcoming the deformity, and in securing nearly full motion.

THE MECHANICAL TREATMENT OF HIP-JOINT DISEASE.

DR. JOS. C. HUTCHISON read a brief paper upon the above subject, and presented a patient under treat-

ment according to the plan which he recommended. The apparatus consists of an elevated shoe worn on the sound side, and a pair of crutches. As the patient stands on his crutches, the diseased limb is suspended. The shoe is high enough to prevent the toes of the affected side from touching the ground, and the sole should be covered with leather to avoid noise in walking. [For a complete description of the indications for treatment of hip-joint disease, see MEDICAL RECORD, vol. xv., No. 19.]

The paper being before the Section, discussion was opened by DR. C. FAYETTE TAYLOR, who stated that his experience corroborated, in part, that related by Dr. Hutchison. About fourteen and a half years ago a case of hip-joint disease came from Delaware County to him for treatment, and the circumstances were such that he was unable to treat it except by the method described. He directed the patient to have a sole four inches high put on the shoe worn on the sound side, so that it would be impossible for the toes on the affected side to touch the ground; to walk on crutches as long as she could at a time, and also to try to relax the muscles about the hip as much as possible. One year from that time the patient came to him again, when he found that all the symptoms of hip-joint disease had disappeared, and there was complete motion at the joint. For twelve years he had used the self-supporting joint splint, which protected the joint and kept the leg suspended, and unquestionably part of the benefit derived was on account of the ability of patients to suspend the leg longer than they would otherwise be able to do. Yet there was danger in the method, for the patient, who returned, came with the ligaments of the knee-joint so relaxed by the continuous strain upon them produced by the weight of the leg alone, that she was unable to walk. The same result might occur while using the self-supporting joint splint, unless it was protected.

Dr. Taylor further remarked that he suspected he had made a mistake in diagnosis in the case above mentioned, but about one year ago he had the opportunity to examine the affected limb, and found that the trochanter upon that side was about one inch higher than the other; the knee was yet weak. There was no reason to doubt that the girl suffered formerly from hip-joint disease.

DR. A. B. JUDSON remarked that while Dr. Hutchison did not claim any originality in his method of treating hip-joint disease, because it was founded upon principles which had been recognized for several years, and had been carried into practice by Dr. Thomas, of Liverpool, it was an innovation for which Dr. H. deserved great credit. Of course, he must abide the test of time regarding the efficacy of this simple means of treating a most formidable joint affection.

DR. A. C. POST said that a few weeks ago he saw a patient suffering from morbus coxarius, who was wearing the self-supporting splint, and was entirely free from pain while standing, and the mother stated that extension was made at night, and that the limb was painful when extension was not made.

DR. L. M. YALE remarked that he had been highly interested in the paper, because, if the plan of treatment proposed had a general practical application, it would be of immense assistance to those who were obliged to deal with cases which could not procure desirable apparatus. Further experience was desirable.

DR. V. P. GIBNEY stated that he had had a limited experience in the plan of treatment proposed, not sufficient, however, to enable him to make a report; yet early cases seemed to be doing very well under its application.

There were many cases of hip-joint disease which recovered without treatment, but in the genuine articular disease, that which produced destruction of the joint and surrounding tissues, he had failed to see any treatment which had an effect to absolutely cure the patient, with motion and the limb restored to the same usefulness it had before being attacked by the disease. Any plan of treatment that promised to bring about that result was a desideratum.

DR. GARRISH asked Dr. Hutchison if he would begin his plan of treatment in the acute stage.

He had under his care a patient who had had hip-joint disease on one side, had been treated and recovered, and now was suffering from the same disease, in its acute stage, upon the opposite side; and he proposed to adopt Dr. H.'s plan, if it was applicable in the acute stage, and compare the results.

DR. HUTCHISON replied that he put his plan of treatment into operation as early as possible. Of course there were cases in which the symptoms were so severe that it became necessary to put the patient in bed, but they were exceptional.

THE CHAIRMAN remarked that it was the constant, persistent, muscular contraction, to keep the joint still, which was one of the great elements in breaking down the nervous system of the patient, and produced constitutional disturbance. Constant muscular contraction kept up constant pressure of the diseased surfaces, one upon the other, absorption occurred, and, when it had extended sufficiently far, the acetabulum was perforated and the head, or rather the upper extremity of the femur, rode through it. It was to overcome the constant and persistent action, on the part of the muscles, that some mechanical apparatus was employed which relieved them, and at the same time *simply kept the diseased surfaces from coming in contact with each other.* [Extension and counter-extension.] By fulfilling these indications, the exciting cause of the muscular contractions was removed, and with its removal went the tendency to reflex muscular movements, and at the same time more or less motion in the joint was obtained.

With reference to Dr. Thomas's instrument, he thought the inventor had not the slightest idea regarding the pathology or the philosophy of treatment of hip-joint disease; that it was simply abominable, and was not the embodiment of any principle whatever. He suggested that the tendency to pull upon the knee-joint too much could be overcome by applying adhesive plaster.

DR. HUTCHISON regarded Dr. Thomas's instrument as diabolical, and one at the farthest remove from the plan of treatment which had just been described. He agreed with the Chairman that extension should be employed to prevent the head of the bone from going through the acetabulum, but he thought the weight of the leg was sufficient to do so, because it was one-fifth of the entire weight of the body, and, therefore, more than was employed when the patient was put into bed and a weight and pulley attached. He had had several cases in which recovery was so perfect that he did not know, from present examination, which limb was affected.

THE CHAIRMAN remarked he was very glad to learn that Dr. Hutchison had had many cases recover so completely, for he himself had had many such cases, but subsequently the diagnosis had been questioned.

DR. GIBNEY remarked, regarding a suspicion that error in diagnosis had been made, that, on a question

where there was so much at stake, one should be able to give all the symptoms and the dates of examination throughout the entire course of the case, and that could be done only by noting them in full as the different examinations were made. Memory could not be trusted regarding the facts found in the early stages, and all the points bearing upon it. He had found himself in a condition to doubt diagnosis, but by making full notes he had found that he was overwhelmingly in error. He should be glad to see a case of *complete* recovery from hip-joint disease; not primary synovitis of the hip-joint, which would have gotten well without apparatus, but that slow chronic disease which begins and progresses as a primary bone disease, the surrounding tissues becoming involved, secondary synovitis developed. It was in such cases as the latter that he would like to see a cure effected without leaving some marked trace of the affection.

Dr. Taylor stated that during the last year he had been making diagrams of the whole body of the patient, and he had found that in a great many instances where an ordinary examination would not discover any difference between the two limbs, there had been a little difference in the comparative position occupied by the trochanter upon either side. He thought that answered Dr. Gibney's query precisely, for the reason that in many in which, diagnosis being doubted, there had been found evidence of slight previous bony disease, not recognizable by ordinary methods of examination, but sufficient to confirm the diagnosis as correct.

Dr. Gibney thought that such diagrams would be found to be unreliable, and must be placed in the large collection of signs that failed in a certain proportion of cases.

The Section then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Annual Meeting, Nov. 24, 1879.

Dr. A. E. M. Purdy, Vice-President, in the Chair.

The Society was called to order at 8 P.M., and, on motion, the minutes of the Annual Meeting, as published, were accepted.

The Secretary read the following communication from Dr. Freeman J. Bumstead, President:

"*To the Members of the Medical Society of the County of New York:*—In my election as your presiding officer, a year ago, I fully appreciated the honor of the appointment, and hoped that my presidency might redound to the interest and welfare of the Society. Unfortunately, during the past year, a severe accident and many weeks of serious illness have greatly interfered with carrying out my purpose. Under these circumstances I can only crave your kind indulgence. Writing from a sick bed, I am unable at present to say more, and must close with the expression of my best wishes for the Society. Sincerely yours."

The Vice-President then presented the gold medal to Dr. Samuel Sexton, the successful prize essayist.

The minutes of the meeting were then read and the Society adjourned.

Stated Meeting, Nov. 24, 1879.

Dr. A. E. M. Purdy, President, in the Chair.

The Society was called to order at 8.10 P.M.

There being no minutes to read, Dr. Horace P. Farnham, Vice-President, was called to the chair, and the President delivered his inaugural address. The following is an abstract:

PRESIDENT'S ADDRESS.

After thanking the Society for the honor it had conferred upon him in electing him as their presiding officer, the President assured the members that he should most cheerfully unite with them in all those measures which tended to advance their common interests and elevate their chosen profession. It should be his endeavor to discharge his official duties without fear or partiality, and while he endeavored to carry out the laws of the State relative to the practice of medicine, he should hope for the Society's hearty support and co-operation.

The President then gave a brief review of the history of the establishment of medical societies in the State of New York. It was not until after the middle of the last century that the first law regulating the practice of physic and surgery in this city was enacted, and not until its very close that the first general regulation of the profession of medicine was adopted. "The organization of the State Medical Society and of its branches in the various counties of the State, a history of the successful efforts to establish order in a profession where all had been confusion, is an example which we will do well to follow, and a record we should strive to sustain unblemished." He then proceeded to present the objects for which the Society was organized: First, and primarily, to regulate the practice of physic and surgery; and second, to contribute to the diffusion of true science, and particularly to the knowledge of the healing art.

It was not intended that the Society should be a purely scientific body, and in the light of that view, the President discussed the objects for which the Society was established under two heads:

1. The regulation; and

2. The improvement of the practice of our profession.

For the attainment of the first he believed the existing laws of this State, the system of ethics, and the edicts of the State Medical Society, contained provisions which, if properly regarded, will, in a measure, lead to the suppression of quackery. On this point extensive quotations were made from the recent report of the Board of Censors, regarding the facility with which unqualified persons may obtain licenses to practice medicine, and how the qualifications at present demanded can be rigidly enforced.

Some physicians, in pursuit of an interest distinct from the honor of the science, had acted with candor—with the instincts and manners of gentlemen, and disdaining artifice, while others, impelled by necessity or by baser motives, had recourse to mean and untrustworthy tricks to raise their importance among the uneducated. Some of these acts are mentioned in the Code of Ethics, and quotations were made from Part VI. of the System of Medical Ethics of the State Society, and at the time of their adoption the provisions appeared to be sufficient to exercise a healthy restraint over those disposed to violate them. But the Society had fallen upon different times, and, in its perplexity, had asked the State Medical Society in 1878 for a definition of what was meant by *public advertising*, but no response was made; consequently the Medical Society of the County is suffering from the effects of a system of rules which, at the least, need revision.

The manner of reaching so-called regular physicians who are not members of the Medical Society of

the County was presented by the President as follows:

The President of the County Society should notify physicians not members of that Society, in accordance with Section 1 of the Medical Act of 1827. If the physician so notified fails to comply with notification he forfeits his license, and Section 3 of Act of —— declares that it shall be a misdemeanor to practise without a license, and fixes a penalty for so doing. By the special acts incorporating the several medical colleges, their diplomas are made "licenses." "As a society especially chartered to regulate the practise of physic and surgery, have we done the full measure of our duty? If not let us then awake and make an earnest attempt to expiate our past omissions." The President then made brief allusion to the second object of the Society, and expressed his earnest desire to make the stated meetings of the greatest scientific interest.

DUTIES OF DELEGATIONS AND COMMITTEES.

He then spoke of the duties of delegates and of some of the committees. He believed that the Society could instruct its delegates, and that the resolutions instructing delegates were as binding and compulsory as any other resolutions of the Society.

He also believed that "the Committee on Ethics should take cognizance of all patent and public breaches of medical ethics," whether the same were brought to their notice anonymously or otherwise.

THE PRESIDENT then announced the following standing committees:

Committee on Ethics: Drs. Saml. Sexton, Chairman; J. R. Leaming, Wm. M. Polk, J. S. Bryant, and C. Cleveland.

Committee on Hygiene: Drs. J. C. Peters, Chairman; Chas. C. Lee, E. G. Janeway, C. E. Billington, and A. B. Judson.

Committee on Registration: Drs. H. G. Piffard, Chairman; E. D. Hudson and Laurence Johnson.

Committee on Prize Essays: Drs. Fordyce Barker, Chairman; E. Eliot and Austin Flint.

Auditing Committee: Drs. Wm. M. Chamberlain and E. Eliot.

REPORT OF THE COMITIA MINORA.

THE SECRETARY then read the report of the Comitia Minora.

On motion, the report was divided, and the portion relating to granting certificates of membership was adopted.

The portion relating to a resolution introduced by Dr. Piffard at the Annual Meeting in October, and referred to the Comitia, providing that the Society should not respond to the assessment made by the State Medical Society for the publication of its Scientific Transactions, and laid upon the table by the Comitia Minora, gave rise to discussion, which terminated in the adoption of the following resolution offered by Dr. D. B. St. John Roosa:

Resolved, That the Treasurer be instructed to pay the assessment made by the State Medical Society for the publication of its Transactions for the year 1879.

The paper for the evening was read by DR. WM. T. LUSK, and entitled

THE PROGNOSIS OF THE CÆSAREAN OPERATION.

The paper consisted in a careful and brief résumé of the statistics which have been published regarding Cæsarean section, with especial reference to the time of operating, and the surroundings of the patient.

A very large proportion of the entire number of tabulated cases had been derived from reports of lying-in hospitals, in which the showing for all operations was much less favorable than for the same operations performed in private practice, or under specially favorable hospital accommodations. The success in certain districts by certain operators, should not place the operation under ban because in other places it had not succeeded. Why the operation had so often ended fatally could be explained by the fact that it had been performed and the patient remained in an impaired atmosphere of a maternity hospital—surroundings which would make ovariotomy, with its present success, equally fatal as had been the Cæsarean section. The circumstances under which Michaelis operated were such as to render the chances of success almost none, and yet his statistics had continuously appeared as a comment on the safety of the operation. In private practice, delay in performing the operation until the woman became exhausted, even when decided to resort to it, had materially increased the rate of its mortality.

The conclusion reached by Dr. Lusk was that when the Cæsarean section was performed without delay, before exhaustion manifested itself, and was performed under as favorable circumstances as those at present insisted upon in the operation of ovariotomy, the degree of success obtained by Keyser of 81 per cent., or by Harris of 70 per cent., might be expected and perhaps exceeded.

THE PRESIDENT announced that Dr. John S. Billings, U.S.A., would read a paper at the Stated Meeting for December.

The Society then adjourned.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Meeting of September 26, 1879.

PERIMETRIC INFLAMMATION.

DR. H. P. MERRIMAN read a paper on *Perimetric Inflammation*. By this term he included all the inflammations of both peritoneum and cellular tissue about the uterus. He preferred this name to pelvic abscess, pelvic cellulitis, perimetritis, etc. He differed from Dr. Thomas, who believed there was no chronic peri-uterine cellulitis; he thought the chronic inflammation was common. Evidence of this was to be found in tenderness about the uterus on examination, particularly at points of slight induration. Such points of induration and tenderness, as well as malpositions of the uterus from adhesions due to inflammation, were to be found in a large proportion of cases of uterine disease. Perimetric inflammations always involved both the peritoneum and the cellular tissue. The most frequent seat of the beginning of the inflammation was in the cellular tissue, in the folds of the broad ligament, and on the left side it occurred more than twice as frequently as on the right.

He believed, according to the prevalent doctrine, that the inflammation was usually secondary to the same condition existing in the uterus, Fallopian tubes, or ovaries. He repeated, with approbation, Emmet's treatment with rest, hot injections, etc.

DR. NELSON said it was highly important, in treating cases of metritis and endometritis, to make sure no chronic perimetritis existed; for treatment proper for the former might greatly aggravate the latter, if present. He related the case of a pregnant woman where, with varicose veins of the left leg and thigh, there was a varicose state of the vessels of the left side

of the cervix and uterus, while the right side was normal. He thought this gave a hint as to the reason of the chronicity of many cases of uterine inflammation. He thought perimetric inflammations were generally due to some traumatism, such as falls, lifting heavy weights, or violent coitus, with disproportion between organs.

Dr. D. L. Miller said the numerous terms employed to designate inflammations about the uterus was an over-refinement of medical writers. He did not think acute inflammation was confined to a single structure within the female pelvis. Cold-catching during menstruation was responsible for many cases of perimetric inflammation. He strongly condemned the prevalent habit among women of taking cold vaginal injections immediately after coitus. Perimetritis frequently caused symptoms of other affections for which patients were treated, of course uselessly. When the inflammation was near the origin of the sciatic nerve, such symptoms were induced as had led to a course of treatment for sciatica being prescribed.

A measure of treatment he favored was counter-irritation by means of a blister over the hypogastrium; this to be fomented a few hours, and then anointed with a mixture of mercurial ointment, powdered camphor, and powdered opium, in the proportion of eight parts of the first, two of the second, and one of the third. Injections of hot water should be used, followed by the introduction of carbolized cotton saturated with glycerine, with opium.

Dr. Ramel believed that acute perimetritis seldom occurred as a primary affection, but was induced by inflammation of the uterus or ovaries, with the aid of some aggravating circumstance.

In the acute form, leeches, hot fomentations over the hypogastrium, and sitz-baths were to be used for local treatment.

Dr. Sawyer thought perimetric inflammations were frequently due to coitus during or near the menstrual period. This greatly increased the natural congestion at such times. He thought abortions often due to a similar immoderate and improper indulgence.

Dr. C. W. Earle alluded to the use of tents of sponge, laminaria, and elm as frequently producing perimetritis. Metallic dilating instruments might produce the same result. Such measures, he was convinced, should be used with great caution. He related two cases where the perimetritis was undoubtedly produced by the careless use of these instruments.

Dr. H. W. Jones said sponge-tents often did produce the disease under discussion. Another cause not previously noted, was the abstraction of heat from the feet of sewing women by the metallic treadles of the machines they used.

Chest Development and Consumption. It is stated that, during the last twenty-five years, not a single singer at St. Petersburg has died of consumption, although this disease has outstripped all others, and now holds the first place among the causes of death at the Russian capital. From this and other facts, Dr. Vasilieff draws an inference in favor of the exercise involved in singing, as a preventive measure against consumption. *The Lancet*, in quoting this conclusion, very properly warns the reader against adopting it too readily. It may either happen that singers are not consumptive, because they can use their throat and chest freely; or that consumptive persons are not singers, because the weakness that precedes disease incapacitates the chest and throat for exertion.

Correspondence.

PATHOGENETIC BACTERIA IN SALT-WATER MARSHES.

To the Editor of The Medical Record.

Sir:—In studying the infusorial life in sweet- and salt-water bodies, I was soon struck by the almost general absence of bacteria in stagnant water, pools, marshes, etc. Around carcasses of larger animals they are always found in abundance, but they are confined to a limited area around the putrefying substance; they do not spread through the whole body of water. Knowing the widespread occurrence of bacteria in the atmosphere, I was the more astonished, but failed to find an explanation for this apparently paradoxical fact. Meanwhile, observations in the fall of last year gave me a satisfactory solution of the problem. In the beginning of fall, in the months of September and October, infusorial life is the richest and most variable.

Having exposed to the air glass jars containing plants and samples of water from different localities, I soon found certain jars full of wrigglers, the larvæ of mosquitoes (Culex pipiens) bouncing with the greatest velocity through the water, which proved to be almost entirely deprived of infusorial life. In the struggle for existence, the wrigglers consume all the weaker micro-organisms, and the only infusoria surviving the struggle are the largest Hypotrichous ciliata, such as stylonychia, euplotes, etc.

Closer observation revealed small brownish lumps of a velvety appearance, deposited on the surface of the water, and containing a large number of mosquito eggs, which after a few days are transformed into larvæ. As mosquitoes breed at an enormous rate, the water is soon swarming with wrigglers. To prevent the destruction of my stock for microscopical examination, I had to cover the jars to exclude mosquitoes.

Septic liquids containing putrid meat and decaying plants, giving off a most terrible stench, were purified after wrigglers developed therein, and feasted upon the myriads of bacteria, flagellata, etc. The liquids became perfectly clear, transparent, and odorless—the bacteria at the same time disappearing entirely. Thus I had found in wrigglers the most important factor for controlling and preventing septic processes. Undoubtedly the wrigglers are substituted in other countries by the larvæ of other insects. The scarcity of bacteria, or septic infusoria in stagnant water is lucidly explained by the abundance of wrigglers—they bearing to each other the relation of cause and effect.

Into the study of the etiology of mycotic diseases enters therefore a new element, viz., the conditions regulating the development of the enemies of pathogenetic infusoria—in particular that of the wrigglers.

The present frequent occurrence of septic infusoria will find an easy explanation in the scarcity of wrigglers, which scarcity was brought on in the following manner. The great and sudden reduction of temperature in the latter part of September caused the destruction of mosquitoes, especially the females. Although the cold days were followed immediately by hot weather, only a few struggling individuals were left behind, the principal stock having been killed. A jar with a [illegible] possession dates from the beginning of October.

Later on, mosquitoes ceased to annoy me, and I did not need to protect the jars any longer. This scarcity of wrigglers, combined with an unusual high temperature, so favorable to the development of infusorial life, are sufficient to explain the present frequent occurrence of septic infusoria.

Among the pathogenetic bacteria swarming at present in stagnant waters, I wish to allude in particular to Spirillum undula, generally of much rarer occurrence than the other septic bacteria. As well known, Obermeier described in *Ctblt.*, 1873, No. 10, a micro-organism resembling Spirillum tenue, possessing the same rapid corkscrew-like movement, and living in the blood of patients suffering from recurrent fever. Spirillum undula of comparatively large size is a conspicuous object for microscopical examination, and scarcely fails to be detected if present. The transition from the latent or passive state —which state may be easily procured by exposure to cold—to the active state, is readily observed and produced at will. This interesting phenomenon illustrates fully the appearance and disappearance of certain mycotic diseases, and their dependence upon cosmic agencies.

J. J. FRIEDRICH.

71 ST. MARK'S PLACE, Nov. 19, 1879.

DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Under the above heading there have been several articles in support of Prof. Thury's law. A recent case, which seems to me to be what would probably be styled by *its* supporters as an exception, is as follows:

Mrs. —— had a very free menstrual period, February 3d; was confined November 19th; child male; born 6 A.M.—counting back 280 days, February 12th, or nine days after the period that conception occurred. The mother says that she went a week longer than she had calculated on; hence I consider it safe to reckon back 280 days rather than 273 days. And here let me state that in my experience, when exact dates are known, if the product is a male, birth is usually 280 days from the time of conception, but if a female, usually only 273 days. Yours, etc.,

S——.

RHODE ISLAND, Nov. 20, 1879.

CONCERNING SO-CALLED PATENTED MEDICINES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In his remarks on "Pharmacopœial Remedies," in the MEDICAL RECORD of last Saturday, "Pharmacopœia" says: "Among the proprietary, trade-marked, and patented medicines largely used by some even eminent physicians, are: McMunn's Elixir, Chlorodyne, and Winslow's Soothing Syrup." Now I beg leave to ask "Pharmacopœia" to explain what is patented in these preparations? What is the reason he calls them patented, or any one of them? I, for my part, venture to say that there is nothing patented about them nor any one of them. The word *patented* used in common parlance is utterly incorrect, and should not be used carelessly by a writer in the MEDICAL RECORD. True, there are legions of worthless and dangerous preparations, both proprietary and trade-marked, and it is decidedly a good idea to expose them in medical journals, and show physicians what is a preferable prescription to them; but I ask "Pharmacopœia" to name a worthless or dangerous preparation in the market which is *patented?* I do not intend in these lines to break a lance for either proprietary, trade-marked, or patented preparations. I only wish to correct a palpable error in which neither pharmacists nor physicians should fall.

JULIUS FEHR.

HOBOKEN, N. J., Nov. 24, 1879.

CORNEAL ABRASIONS CAUSED BY FINGER-NAIL SCRATCHES—TREATMENT.

TO THE EDITOR OF THE MEDICAL RECORD.

DR. GALEZOWISKI, in his preface to Dr. A. Yvert's late work*—Wounds of the Eyeball—refers to certain corneal wounds due to the finger-nails of infants, the wounds being very painful and difficult to heal, lasting for weeks and months. The wounds are generally irregular, with small superficial flaps, which lift at each movement of the eyelids. His treatment is to cut off the small flaps.

A somewhat fuller description than the above may not be out of place. The infants scratch their mothers' eyes, not their own. The appearance of the injured eye is sometimes alarming, lids red and swollen, profuse lachrymation, intolerance of light with severe pain in eyeball, and great injection of conjunctival vessels. It is not difficult to see the corneal lesion. The scratch is generally an irregular furrow with unequal edges. The slightly raised edges are constantly rubbed by the lids at each movement of the eyeball. The constant chafing of the lids causes the pain and prevents healing. As to treatment, Dr. G.'s method is excellent, if the flap is only large enough to cut off; but in every case prompt healing can be secured by keeping the eye at rest by means of a compress bandage. The bandage must be firm enough to prevent the lids moving.

PETER A. CALLAN,
Surgeon New York Eye and Ear Infirmary.

EXPERT TESTIMONY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the RECORD of Nov. 8th I notice a quotation from the *Boston Medical and Surgical Journal* on the deficiencies of medical expert testimony. The deficiencies set forth in the article are: "first, a most conspicuous partisanship, even in questions of purely scientific character, the experts being practically retained on one side or the other, and expected to help that side; second, the employment of pretenders and charlatans; third, the fact that the expert's compensation often depends on the result of the trial; fourth, a lack of integrity on the part of the expert, even when he is a person of ability; finally, although there are experts who are both honest and able, there is no system by which their services can be equally applied, for only the party which has money can secure such persons, and the other side must get what they can."

As a remedy for these deficiencies I submit the following plan for consideration and discussion:

Let each State, by act of legislature, be divided

* Traité Pratique et Clinique des Blessures de l'Œil, par A. Yvert, Paris, France.

into districts equal in number and area to the judicial districts in the State. For each district let one or more physicians be appointed as medical experts, the term of office to extend over a certain number of years, say the same number as that of the president-judge of the district to which he is appointed. Before receiving his appointment he should be thoroughly examined by a State board of competent physicians created for the purpose. After passing a satisfactory examination, his name should be submitted to the Governor of the State, in whom should be vested the power of appointing. He should be paid a sufficient salary for his services as expert, either by the State or district in which he holds his office, and should be a resident of that district.

It seems to me an act by the legislature, such as that of which the outlines are here presented, would entirely correct the deficiencies alluded to above. It would remove the partisanship, by placing the expert on as impartial ground as the judge himself; it would be impossible for pretender or charlatan to obtain the position. The expert's compensation would not depend on the result of the trial, and, therefore he would not be tempted, for the sake of gain, to give false testimony; nor is it likely that, from the impartial ground he would occupy, he would lack integrity. Lastly, his services would apply equally to all, rich or poor. As the judge decides legal points, so would the expert decide medical points.

F. P. Ball.

Salona Pa., Nov. 15, 1879.

THE USE OF THE PRONOUN "WE."

To the Editor of The Medical Record.

Sir:—I crave space to enter a protest against the abuse of your editorial prerogative and of English grammar, perpetrated by not a few of your contributors and correspondents who persist in pronouncing themselves "we" (not collectively, but individually). The use of the plural pronoun in editorial writing is justified by the hypothesis that it expresses the conjoint wisdom of an editorial staff; but why a writer who proclaims his unipersonality by placing his name either at the top of his paper, or at the bottom of his epistle, should describe himself in the plural number, as if he were "two single gentlemen rolled into one"—unless, perhaps, it be on the abstract principle of the sovereignity of each and every American citizen—passeth the comprehension and the patience of

Yours, etc.,

Ego.

CRESYLIC ACID IN THE TREATMENT OF WHOOPING-COUGH.

To the Editor of The Medical Record.

Sir:—In the last number of the "American Journal of the Medical Sciences" is an article by Prof. J. Lewis Smith, of New York, in which he relates his experience with carbolic acid (used in a steam atomizer) in the treatment of whooping-cough.

Last May it was my privilege to have under my care fifteen cases of pertussis in the "Sheltering Arms Nursery."

For a week the treatment was quinine bromide, but the disease was not arrested.

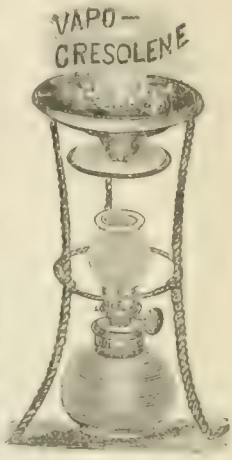
An apparatus for vaporizing "cresolene" was then employed, and the paroxysms stopped, almost immediately the paroxysms were relieved.

Unfortunately at that time Prof. Smith had not taught me to record the number of paroxysms, and my notes of the cases are very indefinite. It can only be said that the results were most satisfactory.

My colleague did not use the vaporizer during his service. When I again came on duty, I found two new cases well established, the paroxysms very frequent, and the children much exhausted by their severity and the accompanying vomiting. Several other children were coughing with that quick percussive cough so characteristic of the first stage.

The vaporizers were started, and after forty-eight hours the paroxysms had ceased, no more whooping or vomiting; sleep was obtained.

Though children were admitted to the institution, who had not had the disease, no new cases broke out, and the epidemic was at an end.



The vaporizers were used for a month as a safeguard.

The apparatus is simple, inexpensive, and, I believe, unequalled in the treatment of whooping-cough. It is shown in the cut, and needs no explanation.

A word about "cresolene." It is a product of coal tar.

Its chemical composition is $CH_3C_6H_4O$; that of phenol being HC_6H_5O. In that it contains an additional *hydrocarbon*, CH_2, cresolene is homologous to phenol.

Cresylic acid or cresolene is an oily liquid (boiling-point, 397.4°), corrosive to the skin. Vaporized by this apparatus, it reminds one of carbolic acid.

The vapor is not injurious to healthy persons. It has a beneficial effect in allaying the irritation and desire to cough in bronchitis.

This agent deserves more extended trial. I earnestly recommend it, and shall hope to see results published.

John Merritt, M.D.

Brooklyn, N. Y.

ELECTRICITY A PARALYZING AGENT.

To the Editor of The Medical Record.

Sir: In a criticism of a portion of my article under the above heading, in a recent issue of the Record, Dr. Wm. B. Nettel, in a subsequent issue, raises an objection to which I desire to reply as briefly and pointedly as possible. It is quite true, as he alleges, that the transmission of a galvanic current along a nerve-trunk renders it more "irritable" to the subsequent influence of an interrupted current, if that current is applied in the catelectrotonos region. But this is only a part of the truth in the matter, as we shall presently see.

This galvanic current is necessarily paralyzing in its action, for the following reasons. Even "very feeble and instantaneous passages of the galvanic current produce electrolytic effects" (Drs. Beard and Rockwell, "Med. and Surg. Elec.," p. 116). These effects are essentially of a decomposing and disorganizing character, and acting on nerve-tissue, a structure as nerve-fibre it is impossible to regard the result as other than one of reduced vital activity and dimin-

ished nerve power. Numerous authentic facts show that electricity is not a substitute for nerve-force. A nerve-trunk is not an originator, but merely a carrier of nerve-force. Electricity applied to a nerve-trunk cannot, therefore, act as a producer of nerve-force, and as it cannot be a substitute for it, and moreover as its action is inimical to the integrity of nerve-tissue, it is impossible to see how it can act as a stimulus, though quite possible to see that it may arrest the transmission of nerve-force from the central ganglia to the periphery.

When, after the application of a galvanic current, an interrupted current is applied to that portion of the nerve in which electrolytic action has been most active, and then produces muscular contraction, which it previously failed to do; and when, in addition to this, it is shown by the physiological experiments of men like Sir Astley Cooper, Drs. Kussmaul and Jenner, Dr. Brown-Séquard and others, as recounted by Dr. C. B. Radcliffe, F.R.S., that muscular contraction occurs to the best advantage in proportion to the absence of the influence of the nervous centres, the inference is fair, that what these currents have been doing is arresting nerve-force, and that the reason why the weak interrupted current succeeds, where it failed before, is that the galvanic current weakened the power of the nerve, and its remaining nerve-force is more easily overthrown, setting the muscle free.

Your correspondent appears to think that he places me in a dilemma when he points to muscular contraction following the application of the interrupted current to the catelectrotonic portion of the nerve, and its failure to cause contraction when applied to the anelectrotonic portion. If the contraction in one case is a consequence of the paralysis of the nerve, he thinks we "must admit that the absence of contractions is the result of an opposite, *i. e.*, tonic condition of the nerve, although induced by the same current." We do not admit this. We see, in the absence of contraction referred to, simply a failure in the ordinary effects of faradization, and we account for this failure as follows: In accordance with Pfluger's law, while every portion of a nerve in the catelectrotonos state possesses increased irritability, every portion of the nerve in the anelectrotonos state possesses diminished irritability (see Dr. Moritz Meyer, "Elec. in Prac. Med. (Hammond)," p. 55) and this diminished irritability accounts for the diminished effect of the faradization of this portion of the nerve. Here we may remark, parenthetically, that increased or diminished "irritability" essentially means a greater or lesser facility for inducing muscular contraction, and may properly be interpreted as a greater or lesser degree of paralysis, which renders its remaining power more or less easily overthrown.

Drs. Beard and Rockwell state that the phenomena of anelectrotonos and catelectrotonos "may be explained by the purely physical effects of the currents in the tissue." The galvanic, or polarizing current, produces electrolytic action, in which acids accumulate at the positive, and alkalies at the negative pole, and "it is a fact in physiology that acids diminish the irritability of nerves, while alkalies increase it" (Ib., p. 115). The same interrupted current, therefore, which suffices to paralyze the nerve in the catelectrotonos, negative or alkaline region, where nerve vitality is most lowered, fails to paralyze it in the anelectrotonos, positive or acid portion, where the susceptibility of the nerve to external impressions is diminished. There are probably other causes also (for a great deal has yet to be learned on this subject), and among these it may be mentioned that not only is the irritability of the nerve changed, but its "power to conduct the irritability" is diminished, and though this is true of the vicinity of both electrodes, the decrease extends farther in the anelectrotonos portion (Dr. M. Meyer, loc. cit., p. 57).

In view of these facts, I do not think your correspondent was justified in waving "the paralytic hypothesis" aside, with the assertion that it "scarcely requires any refutation," and that "one experiment with the galvanoscopic frog preparation will prove its absurdity." He seems to have overlooked the fact, that what he regards as a difficulty for us is equally a difficulty for him; and if he is not satisfied with our response, we will thank him to explain, in turn, the situation he presents on the theory of the day; and show how electrical stimulation of the nerve-trunk can take place at all; and if it can, how it is that stimulation of the nerve in the catelectrotonos region produces muscular contraction, while stimulation of the anelectrotonos portion fails to do so, as he himself asserts. If electricity be a stimulus and produces certain effects in one case, why not in the other?

We may remind him further that the history of medicine exhibits a series of reversals of opinion—that electro-physiology can hardly be expected to be exceptional in this respect, and that until Prof. Trowbridge's conclusions, evidently based upon careful experiments, are refuted or explained away, very grave doubts must of necessity attach to the previous results of the experiments of M. Du Bois-Reymond and others as regards inherent currents of electricity in nerve and muscle.

There may, of course, be a difference of opinion as to who are "recognized authorities" in electro-physiology, but if your correspondent denies this position to the leading American, British, and German authors whom we quoted, others will hardly coincide with his opinion in this respect.

Should Mr. Neftel favor us with a rejoinder, we trust he will not fail to notice other points in our article, which we need not specify, but in regard to which he will confer a favor by reconciling them with the action of electricity as a stimulant. In conclusion, we ask, why should a chemical agent applied to nerve-fibrils be regarded as a source of nerve-power? May not the tissue-change, besides the disturbance they occasion in the nerve-molecules, more reasonably be regarded as a paralyzing than as a stimulating influence? The same stimulating effect is commonly attributed to a pinch, burn, or shock from other causes. We are, of course, unable to *prove* that these are paralyzing actions, just as Mr. N. is unable to prove that they are stimulating in their character. The opinion to be formed of them is mainly one of inference. But considering the delicate mechanism of nerve-tissue, and its almost infinitesimal associations with the nucleoli of the nuclei of muscular fibre-cells, it seems a rude and unwarranted idea to assume that such assaults on such a structure *evoke nerve-force from nerve-trunks which, after all, are mere carriers and not originators of nerve-force.*

Yours, etc.,
THOMAS W. POOLE, M.D.

LINDSAY, ONT., CANADA, Nov. 20, 1879.

POPULARIZING SANITATION.—Professor Chandler delivered a popular lecture on Public Health, at Cooper Institute, Nov. 25th. He had a large and interested audience.

New Instruments.

A TRIAL CASE FOR TESTING THE VISION.

INTENDED FOR THE GENERAL PRACTITIONER.

THIS trial case was designed by Drs. D. B. St. John Roosa and Edward T. Ely, especially to meet the demand of physicians in general practice, to enable them to test the vision of any patient, to make a careful diagnosis of some of the more common optical defects so often met with, and give them the power to shield their patients, to a degree, from the baleful influences of the ordinary country vender of spectacles.

It will be particularly useful to the family physician in the examination of patients, who, without external evidence of disease, still complain of their eyes, and enable him to put them upon the road to proper treatment. It is the duty of every physician to urge upon his patients the proper care of their eyes, and thus to do his share toward mitigating a large amount of suffering and loss of usefulness due to neglect.

Specially important is it, that the vision of young children in families and schools should be tested in reference to myopia. If an early diagnosis of this defect can be made, and the subject brought under proper treatment, progressive short-sightedness and all its attendant miseries can be largely prevented.

It is confidently believed that this case will, in the majority of instances, meet all the necessary requirements.

FIG. 1.

Figure 1 shows complete case.

It contains thirty-six pairs spherical trial glasses, convex and concave (eighteen pairs each); they are numbered from 5 to 60, which is nearly as large a range as is to be found in much more expensive cases.

A frame for holding the trial glasses, in which the glasses are held firmly while in use, but can be easily changed, enabling the examiner to make any desired combination.

There is also a set of Jaeger's test-types for near and distant vision, and some general directions for use.

Figure 2 shows frame with glasses in place.

Messrs. Meyrowitz Brothers, of this city, have carried out the wishes of Drs. Roosa and Ely in regard to this case. And, although the case is not intended to take the place of any now used by specialists, it is

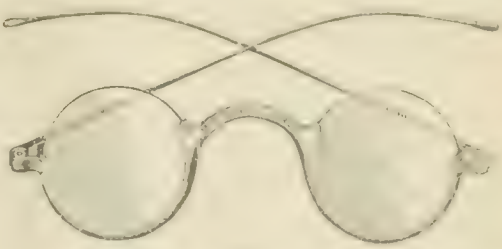


FIG. 2.

thought suitable for fulfilling the purposes already indicated, and that a more ambitious plan would render it less generally useful. It is offered to the profession at a price so low as to be within the reach of all.

Obituary.

FREEMAN J. BUMSTEAD, M.D., LL.D.,

NEW YORK.

DR. FREEMAN J. BUMSTEAD died at his residence in this city, November 28th, after a protracted illness. He was born in Boston April 21, 1826. His mother was a sister of N. P. Willis, and he was educated in the High and Latin schools of his native city, and in 1843 entered Williams College and was graduated among the first in his class. Immediately upon leaving college he began the study of medicine, attending lectures at the Tremont Medical School. In 1849 he entered the medical department of Harvard University, going abroad, however, the following year and spending his time in the hospitals of London and Paris. Upon returning to America in the autumn, he was appointed House-Surgeon to the Massachusetts General Hospital, and in 1851 received his degree of Doctor of Medicine from Harvard. In 1852 Dr. Bumstead settled in New York and began the general practice of medicine. In 1853 he was appointed surgeon to the Northwestern Dispensary, which position he filled for two years. He was appointed to the staff of surgeons to the New York Eye and Ear Infirmary, remaining connected with that institution and St. Luke's Hospital for a number of years.

From 1868 to 1871 Dr. Bumstead was Professor in the College of Physicians and Surgeons, resigning in 1871 to go abroad with his family, where he spent two years in extensive travel, visiting the hospitals and medical schools in Great Britain and Continental Europe. During the last years of his life he was engaged, in connection with Dr. R. W. Taylor, in revising and enlarging his treatise on venereal diseases, and making it worthy of its high reputation as a leading text-book. He completed this work, revising the last of the proof-sheets since the beginning of his last illness. Last summer Williams College conferred upon him the degree of LL.D. At the time of his death he was the President of the New York County Medical Society and a member of the New York Academy of Medicine. In 1861 Dr. Bumstead married Miss Mary Josephine White,

daughter of Ferdinand E. White, of Boston, by whom he had four children. These survive him.

His funeral, which was attended by members of the New York Academy of Medicine and the Medical Society of the County of New York, was held at St. Ignatius's Church on Tuesday last. The interment took place in Mount Auburn Cemetery, near Boston.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 23d to November 29th, 1879.

KEENEY, C. C., Lieut.-Col. and Surgeon. Relieved from duty at the Presidio of San Francisco, and assigned to duty in San Francisco, Cal. S. O. 142, Div. of the Pacific and Dept. of California, Nov. 15, 1879.

KIMBALL, J. P., Capt. and Asst. Surgeon. To return with the command of Colonel Merritt, 5th Cavalry, to Rawlins, Wyoming Ter. S. O. 107, Dept. of the Platte, Nov. 20, 1879.

HALL, J. D., Capt. and Asst. Surgeon. His sick leave, granted him from headquarters, Dept. of Texas, extended one month on surgeon's certificate of disability, with permission to leave the Dept. of Texas. S. O. 66, A. G. O., Nov. 25, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 29, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small pox.	Yellow Fever.
Nov. 22. 1879...	0	15	42	2	84	29	0	0
Nov. 29, 1879...	0	14	43	2	102	51	0	0

HONORS TO DR. FERGUS.—At a recent meeting in Glasgow, a number of citizens presented Dr. A. Fergus with a portrait of himself and a service of plate. The Lord Provost, in making the accompanying address, alluded to the thirty years of long and honorable work through which Dr. Fergus had passed, and also to the recent misfortune by which he had lost a large part of his fortune, through the failure of the Glasgow Bank.

BRITISH ARMY MEDICAL SCHOOL. This army medical school opened its session November 1st. It had postponed its usual time of meeting one month in hopes that the long-desired army warrant granting proper privileges and emoluments to army medical men would be issued by the government. This was not done, however, and there were, in consequence, no candidates for the army medical department at the school. There were seventeen candidates for the Indian Medical Service, and five for the Royal Navy.

A NEW REMEDY FOR HAY-FEVER. Dr. C. M. Sebastian, of Martin, Texas, reports the case of a patient who, for twenty-one years, had suffered every spring from hay-fever in a very aggravated form. He had been treated, as a rule, with Dover's powder, extract of hyoscyamus, and the inhalation of the fumes of burning turpentine. Nothing, however, had given him any great relief. At the suggestion of Dr. S., he put on a thick veil when the next spring came and the flowers began to bloom. This gave him rapid and permanent relief. He has now worn the veil for three seasons, and has had no further recurrence of the attacks.—*Medical Herald.*

ASPARAGUS.—Either the shoots or the root of this plant may be used in the form of tincture or syrup. According to Dr. Mary J. Matlack, in the *Medical and Surgical Reporter*, it acts as heart-sedative, and, to a greater extent, as a diuretic. Combined with bromide of potassium, it is very useful in hypertrophy of the heart and in congestive headaches. As a diuretic, it is useful in dropsy and in lithiasis. It seems likely that, as a sedative, it may deserve a place among standard remedies.

DECREASE IN DISPENSARY ATTENDANCE.—The number of patients treated at dispensaries during the past year has been considerably less than in 1878. It is estimated that there have been from 8,000 to 10,000 fewer applicants for relief, including all the dispensaries.

The increased healthiness of the city has been the chief factor in bringing this about. The pay-system, introduced in some institutions, has also reduced the numbers slightly.

CLINICAL STUDY OF CONTAGIOUS PLEURO-PNEUMONIA.—On Nov. 25th, the Professors of the New York College of Veterinary Surgeons, American Veterinary College, and Columbia Veterinary College, held a clinic and post-mortem upon six cases of contagious pleuro-pneumonia. These represented all the cases in the city. About one hundred veterinary students were present; also several physicians.

The animals were subjected to a physical examination and the signs noted. They were then slaughtered and examined. Marbleizations and pleuritic adhesions were found in each case; in one case a large abscess existed.

It was stated that there have been only a few sporadic cases in the city during the past summer, and no danger from an epidemic is to be apprehended.

LUNACY REFORM.—A meeting was held on the 23d ult. to consider the subject of securing reform in the care of the insane. The Rev. Dr. Bellows presided, and a number of prominent physicians and humanitarians were present. A paper was read by Miss Chevalier presenting the subject, and relating the history of the late successful improvement to secure similar reform in Massachusetts. In this Miss Chevalier had taken a prominent part. After some discussion a committee, consisting of Mr. L. S. Metcalf, Dr. Mary Putnam-Jacobi, Miss Collins, Dr. C. L. Dana, and Col. Robert Hoe, were appointed to make arrangements for a public meeting to be held December 18th. At this meeting a number of prominent men will speak, including Mr. G. W. Curtis, Dr. E. C. Seguin, Dr. Chapin, of the Willard Insane Asylum, Rev. Dr. Bellows, Dr. Willard Parker, Jackson S. Schultz and Rev. Dr. Storrs. It will be the object of the meeting to present to the public the deficiencies in the present insane asylum management, to organize an association for the protection of the insane, and to appoint a committee which will endeavor to get some legislative action in behalf of reform.

Original Lectures.

PSORIASIS.

Is it a Local or Constitutional Disease?

A CLINICAL LECTURE DELIVERED AT THE WOMAN'S MEDICAL COLLEGE, CHICAGO.

By Wm. J. MAYNARD, M.D.,

PROFESSOR OF DERMATOLOGY, WOMAN'S HOSPITAL MEDICAL COLLEGE, AND PHYSICIAN TO SKIN DEPARTMENT, CENTRAL FREE DISPENSARY.

(Reported for The Medical Record.)

I wish to-day to invite your attention to a cutaneous disease known as psoriasis, and in so doing it pleases me to state that we have in the patient before us a perfect type of this affection, with its different phases of eruption. It is not necessary, perhaps, that I should enter into a very extended description of this disease, for, however vividly this might be portrayed, it would be but trivial in comparison to this ocular demonstration. In this connection, however, there are a few practical points that I would like to have you retain in memory, for they will greatly assist you in the future, when, as practitioners, you will be called upon to diagnosticate this affection to the exclusion of others somewhat similar. First, then, let me call your attention to the fact that we have here beautifully shown the manner in which the eruption will assume differences as to shape and sizes of the patches, and to these have been given certain names which indicate the form without signifying any change in the character of the anatomical lesions. Thus, that you may not in any way be misled by these long euphonious terms, I will explain that the disease always commences by small reddish spots that are immediately covered over by whitish scales; that these spots, because they are distinct and somewhat resemble a drop of mortar, are called psoriasis guttata. Here you will notice that they are somewhat larger, and as they are quite round, distinct, and the size of a coin, are called psoriasis nummularis. Here we find that, by spreading out irregularly, or from a coalition of several of these spots, there is a more extended or diffused form of the eruption. This is popularly termed psoriasis diffusa, and is often seen upon the elbows and knees when not so apparent on other parts of the body. Thus you will notice that these names are but mere outlines of the same disease, and should not in the least be confusing to you. You will observe, also, that most of these patches are quite covered with whitish or pearly scales, and by scraping them with my knife you see that they are quite easily detached, and there is exposed to your view a bright red or hyperæmic base upon which a number of minute bleeding points have sprung up. Now, this is so characteristic of this disease that you can always rely upon it as an aid in diagnosis when you may be in doubt. You will notice, again, that the eruption on this individual is the best defined or more diffused on the extensor surface of the limbs. This is what is usually witnessed, and I have seen a number of cases where the elbows and knees were the only parts of the body attacked. I wish also to say in this connection, that the eruption in psoriasis is always dry, and has not at any time in its history a stage of exudation, as is so often seen in eczema. There is more or less itching attending this eruption, but it is at times so slight as not to cause any discomfort to the individual. Psoriasis is a well-marked disease, and, as a rule, easily recognized, because it possesses certain peculiarities that are quite characteristic. Occasionally, however, you will meet with cases that bear a very close resemblance to it, and to these I must call your attention for a short time. Sometimes these round patches in the later stage of the disease will clear up in the centre and leave a perfectly distinct ring that may closely resemble tinea circinata or ringworm. In tinea, however, the scales are not so thick and bulky as in psoriasis, but rather more branny and of a grayish color. In ringworm there is no tendency toward symmetry in the development of the eruption, but it will attack any portion of the body, and then, too, we most always have a history of contagion. In very doubtful cases, the microscope will lend us very material assistance, for all cases of tinea depend upon a vegetable parasite whose mycelium and spores can be generally seen, while no such thing ever exists in psoriasis.

Sometimes upon the link will be found chronic patches of eczema that very closely resemble patches of the eruption under consideration; but when arranged side by side, we will be told that the itching of these patches of eczema is much more intense and constant; that in a majority of cases there has at some time been some exudation; that the scales are much more firm and more tenacious; that the borders of these patches are not so well defined as in psoriasis, but have a tendency to shade away into the surrounding healthy skin. Occasionally we meet with cases of syphilitic psoriasis that so closely resemble the non-specific form that great care and experience is necessary to establish the differential diagnosis—a matter of very great importance, since it renders another course of treatment absolutely imperative. In a majority of such cases you will be able, with a little tact, to receive some evidence of antecedent contagion. If this, however, is not possible to obtain, either through concealment or from the fact that the earlier lesions have been passed by unnoticed, then you must rely upon the appearance of the existing eruptions. Thus, in syphilitic psoriasis these spots are not a bright inflammatory red, as we see here, but rather of a dark red or purplish color, and are only partially covered over with thin, branny scales, which, on account of their tendency to rapidly exfoliate, leave this base quite exposed. In this variety the extensor surfaces, as the elbows and knees, are not necessarily affected, but the eruption will occur upon any portion of the body without regard to symmetry in development.

Patches of psoriasis that exist solely upon the palms of the hands, without being seen upon any other parts of the body, are, according to my experience, invariably syphilitic. Usually, when speaking of the treatment of skin diseases, I have always remarked that the first thing for you to do is to find out what is the matter—to always search for some hidden cause that, in a majority of instances, lies at the foundation of the difficulty. But, in the disease under discussion, I am not able to point out any such cause to you. In a record of 1,500 consecutive cases of skin diseases, I find that psoriasis has occurred eighty-four times, and yet, in a large majority of these, there has really been nothing the matter, as far as I have been able to ascertain. These cases have been very carefully examined, and their organs have been pronounced sound in functional activity. There are many authorities who strongly insist upon certain diatheses, as the strumous, dartrous and gouty,

and who see in these all that they desire for the establishment of this affection. Others have soared in neurotic enthusiasm over perverted innervation, and have seen in their fancy, excesses at the table, both in eating and drinking, mental emotions, too abundant use of azotized food, coffee, etc., raise the mischief with a patient's cutaneous cells, all through the influence of the trophic nerves. It is a good thing to be a good theorist; there is a great deal of satisfaction in it, for we can tell exactly in our own mind how our medicines are going to act on the most complex organisms, as well as explain the cause of different pathological lesions. But these theories, my friends, do not amount to very much unless they can be substantiated by absolute facts and experience. I am inclined myself to grow enthusiastic on the etiology of disease, and you know how often, when speaking of the management of these cutaneous disorders, I have directed my treatment toward the correction of certain internal disorders that appeared to possess modifying, if not causative influences. In psoriasis, however, I am not able to find these hidden causes that are claimed and insisted upon by other observers. How many times have I examined the urine of these patients in the hope that some changes here might account for this disease, or at least establish the presence of lithæmia or the gouty state, which is, undoubtedly, a strong factor in the product of eczema. I have pushed my examinations farther, and have made particular inquiries in reference to good or faulty assimilation, knowing full well how often the organs of secretion and excretion are concerned in other affections of the skin. I have searched for hereditary influences, particularly in reference to scrofula and phthisis, and yet these records show a good family history, provided the statements made can be relied upon.

A few of these have shown an occasional attack of bronchitis and rheumatism, but they have been in so small a minority that I have no reason to suspect that they were any way associated with or concerned in the etiology of the disease. For these reasons, then, I am of the opinon that to a certain extent the skin possesses a sufficient amount of inherent independence to carry on special pathological changes, without the coexistence of other functional disturbances, that there are also many diseases of the skin that are essentially local in their nature and are cured by local treatment. In this class I would place psoriasis, regarding it as a simple hyperæmia of certain portions of the skin, including the upper layers of the corium and accompanied by a manifest proliferation of dried epithelial cells. If these statements are correct, and I have every reason to believe in their truthfulness, you will probably agree with me that there is no particular necessity for internal medication. There really is no particular demand for this, for the disease can in many cases be cured by local treatment alone; and yet I prescribe arsenic very frequently in psoriasis, and have a good deal of confidence in it, for it forms a capital adjunct to my external remedies. Then, too, it pleases the patient more to take something internally, for nearly all afflicted with this disease firmly believe that their blood is out of order, and nothing that you may say or do will convince them to the contrary. It is thought by many of the profession that arsenic is a sovereign remedy for about all the ills that the skin is afflicted with; but this, I can answer you, is a very great error, and one that will lead to bad practice, for there are really but very few cutaneous diseases where we can expect great benefit from this drug. In advising the use of arsenic, then, I do not give it to these patients in the belief that it will effect such an alteration in the blood that its influence will soon be felt in favorable tissue-changes, or that a clue to its action will be found in the regions of nervous pathology; but rather its action is as a simple tonic to the system, and during its elimination through the skin it plays the part of a cutaneous irritant, and by this means stimulates the process of repair. That it is such a stimulant to the rete, that it even acts as an irritant to these cutaneous cells, is well shown, I think, from the fact that, when used in acute psoriasis and in other forms of skin disease of an acute character, they are invariably made worse by it, while the more sluggish and indolent the disease the more rapid will be the improvement. If then this is the true action of arsenic in psoriasis, you can readily understand how it becomes at once an auxiliary to our local treatment, for this is generally stimulating, and why it is so often prescribed and held in such high esteem by practitioners. When prescribing this potent remedy, then, you should always commence with a small dose, generally three to four minims of Fowler's solution properly diluted with water. You should also give this with perfect regularity three times a day, and always after meals, for it is very liable to irritate the membrane of the stomach if given while fasting. It is rarely necessary to increase this dose, for you will remember that it must be taken perhaps for months, and even this amount is liable to produce unpleasant symptoms, as swelling and itching of the eyelids, pain in the head, gastric disturbance, etc. These unpleasant effects should always be borne in mind, and should be the signal for further reduction of the dose, and, if necessary, its entire suspension. Arsenic is a perfectly safe remedy, and may be given for months without any bad results, provided you are cautious and keep your patient under surveillance. Let us now turn our attention carefully to the local treatment, for here also you must use some caution, both as to a choice of remedies and your manner of using them. First, then, examine into the true condition of the eruption. If you find its development of a very recent date, and running an acute course with inflammatory symptoms, here most assuredly you must use soothing applications, for your patient would not be able to endure the stimulating treatment that I am about to recommend. In these cases also there will be a constant exfoliation of scales, which must be removed first by plain or alkaline baths. A very good one for this purpose may be made by dissolving a pound each of borax and bicarbonate of soda in thirty gallons of water. After this bath the patient should be annointed with cosmoline or vaseline, and this treatment continued until the eruption fades away or becomes sufficiently chronic to allow a more stimulating application.

We have in the patient before us a very good example of this chronic condition, and, as she has had the disease for some time, her skin will, I think, bear this stimulating treatment very well. These scales should be removed in the manner I have just described, but unfortunately she belongs to a class that do not indulge very much in the luxury of a bath-tub, and so we must content ourselves with repeated washings of soft-soap and water. This will remove the scales sufficiently, and then she should be rubbed with an ointment containing fifteen grains of chrysophanic acid to the ounce of lard, or cosmoline. I have been using this drug for the last two years, and like

its action very much; at least, it seems to remove the disease much quicker than other remedies applied for the same purpose. It, however, should be used with great care and should be applied only to the patches of the eruption, for occasionally we meet with patients who cannot tolerate the drug, on account of its extreme irritating effect upon the skin, producing either a diffused redness around the whitened patches, or an inflammation that extends over a larger surface and is accompanied by some febrile symptoms. If you are careful, however, to use it only in the more chronic cases, these disturbances will not often occur. Another objection to its use is the peculiar staining of the skin left after the application, which to some is exceedingly disagreeable, and on this account it has been my custom to use the acid on the parts covered by the clothes, and substituting for the face and hands the sapo viridis, or what is generally known as German green soap. This may be used alone, or, if found too irritating, with one or two parts of alcohol. Pyrogallic acid has of late been mentioned as a substitute for chrysophanic acid, when this cannot be tolerated. It is claimed that its action is quite similar, but much slower and milder. As it does not dye the hair nor produce any inflammation of the skin, it can be used much more freely upon all parts of the body. This acid is soluble in water and should be used in a ten per cent. solution.

I have not as yet had sufficient experience in the employment of the drug to speak in positive terms of its asserted efficacy. The tarry preparations, pix. liquidæ or oleum cadini, may also be used with good results, either in ointment with lard or cosmoline; or, if these are objectionable as lotions, with alcohol or cologne spirits. With these remedies at your command you will be successful, in a majority of instances, in removing the disease. Occasionally, however, you will find it exceedingly obstinate, and even when apparently cured will relapse without the slightest provocation, especially in the winter season. In these particular cases I would advise you to continue the arsenic treatment for several months after the subsidence of the eruption, in the expectation that it will act favorably toward preventing its reappearance. From these personal investigations, then, I am led to the belief that psoriasis in a majority of instances is purely a local disease; that it is often removed by local means alone; that arsenic is curative only as it acts in conjunction with the local treatment. I am a warm advocate of the influence of functional disturbances in their relation to skin diseases, and with my statistics taken entirely from that particular strata of society called upper crust, my views may be somewhat changed on this subject, for I am always ready at any time to be governed by a preponderance of truth. I am confident, however, that this will not occur, for I have already seen a sufficient number of cases in private practice to thoroughly substantiate these views, gleaned mostly from dispensary experience. While claiming the local origin of psoriasis, it is but just to say to you that my opinions are not in accordance with those of many dermatologists, and that a majority perhaps will favor its constitutional origin. Still, these deductions are the results of my own experience; and verified as they are by other good observers, I give them to you in the hope that your own future investigations will corroborate them.

KENTUCKY SCHOOL OF MEDICINE.—Dr. M. Kampf has been appointed Professor of Surgery in this school.

AMNESIC APHASIA AND AGRAPHIA.

RIGHT-SIDED HEMIPLEGIA DEPENDENT UPON THE FORMATION OF A CLOT IN BROCA'S CENTRE OF SPEECH, WITH SUBSEQUENT SOFTENING.

A CLINICAL LECTURE DELIVERED AT THE PENNSYLVANIA HOSPITAL.

BY J. M. DA COSTA, M.D.,

PROFESSOR OF MEDICINE AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

(Reported for THE MEDICAL RECORD.)

This man presents a very peculiar form of cerebral disease as a result of apoplexy.

H. L——, æt. 40, Irish by birth, and a tavern-keeper by occupation. He presumably shares in the habits of men of this persuasion, and has, in fact, told us that he has been formerly of very intemperate habits—in other words, an habitual drunkard.

During the past five years he has been subject to peculiar attacks, in which he has become suddenly unconscious, and has remained so for several minutes at a time. He stated, or rather his friends told us when they brought him here, that he had never had convulsions, or exhibited convulsive movements, and had never frothed at his mouth. Thirteen days prior to his admission, which was on the 27th of October last (1879), while apparently in good health, he fell to the floor unconscious and remained so for some ten minutes. When he regained consciousness he was entirely unable to speak. His wife says that the right arm and leg were paralyzed, but that this condition subsequently improved. When the man was admitted to the wards we noticed considerable muscular rigidity in the right arm and leg. He moved his right leg as if it were an artificial member, bringing his heel down stiffly, with the toes extended. The arm could also be moved voluntarily, but it remained in any position in which we chose to fix it for several minutes, just like an automaton. The grip of the right hand was impaired—was, in fact, quite feeble.

As regards the patient's sensation, we found that it was markedly impaired all over the body, the right sight a little more so, perhaps, than the left. You may say that this statement must be received with some doubt; that we have to depend entirely, as regards the question of sensibility, upon the patient's answers, and that the man's condition is not such as to warrant us in placing any great reliance upon facts for whose demonstration his concurrence is necessary. In this you are largely right; still, however, I think you may receive, as a well-proven fact, the statement that the man's sensation is duller on the right than on the left side of his body.

During all this time he has not spoken. You notice that the expression of his face is quite vacant and confused. All the while that I have been telling you the particulars of his case, he has been accompanying my remarks with confirmatory nods, which may not be regarded, perhaps, altogether as signs of an intelligent understanding of what we have been discussing. Still he takes cognizance of the most part of what is going on around him.

To go still farther into the case, there is a very doubtful history of specific disease. Indeed, in summing up all the evidence, I am inclined to think that there has not been any specific disease. Still, I will leave the question open.

The urine has been carefully examined and found

to be acid, pale, cloudy, and with a specific gravity of 1010. At times there was a very small amount of albumen found in the test-glass, but as the most recent analysis has failed to reveal its presence, we must conclude that albuminuria was but a temporary phenomenon.

The electro-muscular contractility of the right side of the body is impaired. It moves, but not so freely as the left side of the body. The faradic current, however, elicits a ready response.

I am going to ask him some questions:

"Have you had your breakfast?"

"Yes."

"Have you had your dinner?"

"Yes."

"Have you had your supper?"

"Yes."

You see, gentlemen, he answers "yes" to everything. He possesses, in truth, but one word in his vocabulary, and that word is "yes. Once, or twice, I have noticed a faint attempt on his part to answer "no," but the "yes" vastly predominates.

I would call such a case in the abstract, or, to use a better term, generically, a case of *aphasia*. This term we must at present accept as meaning a deprivation of the patient's power of speech, while he still retains the power of understanding what we say, in a certain way, and of moving his lips

"Can you whistle?"

Yes; he can make the effort and put his lips in the proper position. This proves that there is no crippling of the muscles of the mouth or face, and no impairment of the muscles of articulation.

Taking up this clue, then, let us look farther. Let us see if the man understands what I say. In other words, let us try and discover whether the case may not be one of idiocy accompanying the aphasia, whether the patient's brain is not as slow, or slower than his tongue. How are we to proceed in this examination? I hold up my watch before his eyes.

"Is this a fork?"

"Yes."

"Is it a watch?"

He cannot say, and yet when I ask him again:

"Is it a watch?" he nods his head with a gleam of intelligence.

"Is it a penknife?"

"No."

He shakes his head. His intelligence is very evidently impaired, but it is not gone. There is nothing like idiocy. This statement which you may, perhaps, think has not been very decidedly proven by my questions and his wavering answers this morning, has been confirmed by repeated observations made in the wards, which have shown that it is not so much a confusion of his ideas as a lack of keenness and accuracy in the man's grasp of them. He is unable to express himself because he has lost his speech, and not because he is an idiot in any sense of the word.

This point has been further tested in the wards by the use of the battery. It had been thought that it might be an instance of idiocy, consequent upon dementia from alcoholism, where there was a loss of muscular power associated with the dementia—in other words, that it was a case of alcoholic dementia with paralysis. For the purpose of testing these points we applied a strong current to the man's skin by means of the electric brush. Such an application, as you all, no doubt, know, gives rise to great agony, such pain that nobody can hold his or her speech under the use of a strong current; it is the best method in our hands for detecting malingerers. Yet, although the expression of the patient's face showed that he was suffering great pain, not a single word escaped from his lips except a whispered "yes." We thus established our diagnosis of the existence of actual aphasia.

Let us now, before concluding, go somewhat into the cause of this man's condition, and then let us discuss the indications for the treatment of the case.

I have already called your attention to the doubtful history of syphilis in the case, but have, at the same time, declined to consider that history as authentic. There is no history of malaria and no history of heart-disease; no murmur, no dilatation. The kidneys are in good order. Occasionally there is a little albumen in the urine, but it is a very inconstant phenomenon.

His eyes have been examined with the ophthalmoscope, and the evidence is entirely negative; there is no distinct alteration. This examination has been rendered very much easier by the fact that the man's pupils are constantly dilated.

But let us pursue the subject still farther, and let us see whether he has any means left him of communication with the outer world. Has he lost the power of speech only, or is he also unable to write?

"Take this piece of chalk and write your name on the blackboard."

"Is that your name?"

"Well, now write your age."

Notice that there is no crippling of the hand here, gentlemen; the patient tries his best to write, and this is an additional proof of intelligence on his part, but these two short, uncertain, wavering lines are all that he can give us to express:

"Henry L., æt. 40."

Our patient has plainly lost the power of written language—is, in other words, agraphic.

But there is yet another point in the case to be tested. I will try and see, although I allow that it is not easy to determine the point in one so deprived of the power of speech—I will try and see whether the man can repeat words after me, and also endeavor to determine whether he still preserves the memory of words, or whether memory, as well as power of expression, has been effaced.

"Say 'clinic;' say 'room.'"

You see that he cannot repeat either of these words after me, although he tries very hard to do so.

The other matter is to see whether he still has an appreciation of words, or whether he has lost his sense of their meaning. This point I have already tested when I showed him my watch and asked him whether it was a watch or a penknife, but I will try it again.

"Is this a piece of soap?"

"Is it a glass of water?"

He nods his head, yes, to both questions. He is not sure about its being a piece of soap. He is evidently fatigued, and so, without examining him any further, you may take my statement, based upon numerous examinations in the wards, that, as far as I can judge, his memory of words is to a large extent lost; so that generally, when I have mentioned a word to him, he has not understood it, but occasionally, after thinking awhile, the word has returned to him. Perhaps I had better modify my statement and say that his memory for words is comparatively, but not altogether lost.

I have, by these examinations, established a number of facts. I have made out a case of aphasia and agraphia, with right-sided loss of power. It has also been shown you, I think, that the man's mind is slightly impaired—though the idea is present, the

word is wanting—so that the case is one of amnesic aphasia—loss of words, of the power of writing, to some extent only, of intelligence.

What is the underlying cause of all this? What has been the lesion? Where is the lesion? Any one of you who has paid much attention to the advance of physiological science of late, will know that the centre of speech has been located in the left frontal convolutions, and especially in one of these convolutions—the so-called speech-centre of Broca, named after M. Paul Broca, to whom we owe most of our knowledge of this speech-centre. It has been proved by numberless experiments that a destructive lesion of this portion of the brain deprives one of the power of speech.

This brings us to the consideration of another question: What is the nature of the lesion in the present case? We cannot be quite as certain regarding this point, since any lesion destroying these parts will give rise to the same general symptoms. Still I do not think it beyond the province of diagnosis to settle upon the true nature of the lesion.

You will have noticed that the disease came on suddenly. The acute stage was, it is true, preceded by temporary insensibility upon several occasions, but the attack which brought the man into the hospital was, nevertheless, a very sudden one, and when we come to inquire into the cause of such sudden attacks, we find that they are always the result of an apoplexy. In the present case, then, we would say that there had either been (1) an apoplexy in Broca's speech-centre, or (2) that an embolus had been arrested there, or (3) that there had been a sudden clotting in the vessels of that region—in other words, what might be called a thrombus. This last supposition we can dismiss at once, because the condition is a very rare one, and because, when it does happen, there are always marked convulsive movements present, and the hemiplegia is less marked than we find it to be here.

Which of the other alternatives do I fix upon? I think that we have here an apoplectic clot, caused by the breakage of degenerate, atheromatous vessels. I think that this clot is small, and is limited to the centre of speech. I give this opinion, because (1) of the sudden, marked attack of unconsciousness; (2) by reason of the hemiplegia; and (3) on account of the absence of any symptoms of disease of the heart, which, were they present, would favor the theory of an embolic cause for the attack, just as their absence is a strong argument against it.

Is this all I have to tell you regarding the case? No. The clot has been followed by slow tissue-changes—in other words, by local softening; for, if the formation of the clot had not been followed by such softening, we should not have had the impairment of intelligence noted in this man, nor the persistent loss of the power of articulate speech.

To sum up, then, we have a case of aphasia, in the broad sense of the term, as a result of the formation of a clot in Broca's region of speech—the posterior part of the third frontal convolution on the left side—and the clot has been followed by subsequent softening of the surrounding parts.

Right-sided Hemiplegia.—Let us turn our attention to this symptom of the case. Is right-sided hemiplegia common in cases of lesions involving the left anterior frontal convolution of the brain? It is very common—is, in fact, the rule, and a rule which has but very few exceptions. In this respect, then, the present case has been a typical one.

There has been something very peculiar about the loss of power in the present case. At first this loss of power was complete, then the paralysis diminished; but, even at this comparatively late period in the attack, the grasp of the man's right hand is very feeble. This paralysis was soon followed by rigidity and spastic contractions of the muscles of the right arm and leg when put into motion. This tendency to rigidity is not so marked in the leg as in the arm. The man can move the fingers of his right hand; but, when I hold the arm out at length and then let go my hold suddenly, instead of falling, the arm stays rigid for some time in the same position, like an automaton's or a cataleptic's arm. I want to call your attention in particular to this point of difference between the hemiplegia in this case and that which usually accompanies this condition. Can we draw any conclusion from this difference? I think we can. When there is any rigidity of the muscles following the hemiplegia consequent upon a clot, it should be regarded as an indication of the existence of a progressive irritative lesion of the brain, showing that the nerve-centres are still in a constant state of irritation.

I hope that I have succeeded in laying before you the many diagnostic points of the case, so that they have possessed their real significance in your eyes.

This brings us to a consideration of the questions of prognosis and treatment.

The patient having been taken out of the room, I may tell you that the prognosis in these cases is bad, if our diagnosis has been correct in regarding the case as one dependent upon the formation of a clot with subsequent softening. Indeed, we cannot hope for any permanent good results from our treatment. I have seen cases recover their speech, but I fear this man never will do so entirely.

His treatment has consisted mainly in the administration of nervous tonics. He has been taking cod-liver oil and iron. At one period in the attack Basham's mixture was given. Something may be accomplished by improving his nutrition; so let us give him the hypophosphites—two drachms of the compound syrup of the hypophosphites and half an ounce of cod-liver oil thrice daily. Let us also use faradization to the affected muscles, and particularly to the muscles of the tongue. This faradization of the tongue is sometimes attempted with great advantage. You will say that such a procedure would be irrational, but it is not nearly so irrational as you would suppose. We may in this manner stimulate, by some obscure connection, the nervous centres themselves.

Numerous attempts have been made to stimulate the central system by applications of the continuous current over the seat of the disease in the brain, but the results thus far have never been as good as those obtained by stimulating locally the muscles of phonation.

I think that this case of cortical apoplexy has been pregnant with clinical features of interest and instruction to us all.

GURJUN BALSAM, OR WOOD OIL. This balsam is obtained from a tree in India, and is largely used for gonorrhœa by the natives. It is recommended very strongly by M. Vidal as a remedy for obstinate vaginitis. He soaks a tampon of cotton in equal parts of the balsam and warm water, and inserts it in the vagina. It is to be renewed every day.—*Gazette Hebdomadaire.*

Original Communications.

CEREBRAL "IRRITATION" AS A SOURCE OF MOTOR NERVE-POWER.

By THOMAS W. POOLE, M.D.,

LINDSAY, CANADA.

"Looked at from a purely professional point of view, the simple question for us is: Does irritation of the cortical gray matter on the upper and outer part of the cerebral hemispheres tend to produce convulsions? And this question may now undoubtedly be answered in the affirmative." (Dr. C. H. Bastian: "Paralysis from Brain Disease," p. 76.)

Before this answer is given and accepted, it is of the utmost importance to apprehend the true nature of the "irritation" referred to. The cortical gray matter of the hemispheres is so little susceptible to irritation of any kind that the severest mechanical injury may be inflicted on it, such as cutting, tearing, burning, etc., and that, too, in the perfectly conscious and normal condition of the animal, without evoking any reaction of a muscular or spasmodic kind. Electricity was, till recently, believed to be equally inoperative, since currents, which, if applied to motor nerves, tetanize the muscles, produce no effects when applied to the cortical substance; and it requires currents more powerful than these to produce the desired localized convulsions of corresponding muscles. Under these circumstances, by what right are the cortical motor centres said to suffer "irritation" from any of the causes mentioned above? It is evident that their susceptibility in this respect is altogether exceptional, and that what may be a source of irritation to ordinary vascular tissues is not such to the cortex cerebri. Dr. Ferrier, indeed, denies that cauterization of the cortex cerebri is productive of irritation, and if this be true of so severe an operation, surely we ought also to admit the absence of irritation in other morbid changes—the result of exposure to the air, of lesions gradually forming, of hæmorrhagic clots, or of other processes of a character apparently much less intense.

Dr. Ferrier, however, and physiologists generally, are accustomed to see in the class of cases just mentioned, the presence of "irritation," and it is necessary they should assume it to be present, because the production of spasms and convulsions is theoretically regarded as due to the evoking of increased motor nerve-power from the centres in question, the hypothetical "irritation" furnishing a cause for the production and discharge of the motor stimulus to the muscles, requisite under that theory.

But *is it true* that "irritation" of nerve-centres necessarily implies *increased functional activity* on their part? We know that in inflammation—the very highest form of irritation—notwithstanding the appearance of increased excitement (which is deceptive), the vital power of the part affected is really depressed (Dr. Carpenter). Again, from the very nature of irritation, it may be held to be closely allied with pain, and "the essence of pain" is "perturbation of nerve-function, a disturbance quite different from mere exaltation of the normal development of nerve-force." "Pain is not a true hyperæsthesia; on the contrary, it involves a lowering of true function" (Dr. Anstie: "Neuralgia," p. 12.) The presumption is that what is here held to be true of pain is true, also, of "irritation," and that, in one case as in the other, functional power is lowered.

The occurrence of muscular spasm and convulsion as a concomitant of depression or paralysis of the nervous centres is quite in accordance with the results of the physiological experiments of Sir Astley Cooper, Drs. Kussmaul and Tenner, Dr. Brown-Séquard, and others, as recounted by Dr. C. B. Radcliffe, F.R.S. ("Lectures on Epilepsy," etc.), in which it was shown that spasm and convulsion take place in proportion to the *absence* of the ordinary control exercised by the nervous centres over the muscles. It will be seen that, in this view of the case, the "irritation" referred to above in the opening quotation from Dr. Bastian, with its supposed increased functional activity on the part of the nervous centres, is not necessary to the onset of convulsions, which occur to the best advantage when the implied conditions of "irritation" and excess of nerve-power are entirely wanting. This being the case, it is desirable to inquire more particularly whether there is sufficient proof that any such alleged "irritation" is present in these states at all, or whether what has been called "irritation" is not really a condition of depression or arrest of motor nerve-power, a condition which, in the experiments referred to, was shown to be most conducive to spasm and convulsion of muscle.

Now, Dr. Ferrier is a leading authority on this subject, and we propose to examine the chief experiment adduced by him in proof of the "irritation" theory. He writes: "The first experiment I have to record is instructive, as showing the respective effects of irritation and destruction of the convolutions bounding the fissure of Rolando. The right hemisphere of a monkey had been exposed and subjected to experimentation with electrical irritation. The part exposed included the ascending parietal, ascending frontal, and posterior extremities of the frontal convolutions. The animal was allowed to recover, for the purpose of watching the effects of exposure of the brain. Next day the animal was found perfectly well. Towards the close of the day following, on which there were signs of inflammatory irritation and suppuration, it began to suffer from choreic spasms of the left angle of the mouth and left arm, which recurred repeatedly, and rapidly assumed an epileptiform character, affecting the whole of the left side of the body. Next day, left hemiplegia had become established, the angle of the mouth drawn to the right, the left cheek pouch flaccid and distended with food, which had accumulated outside the dental arch, there being almost total paralysis of the left arm and partial paralysis of the left leg. On the day following, the paralysis of motion was complete over the whole of the left side, and continued so till death, nine days subsequently. Tactile sensation, as well as sight, hearing, smell, and taste were retained. On post-mortem examination it was found that the exposed convolutions were completely softened, but, beyond this, the rest of the hemispheres and the basal ganglia were free from organic injury."

Dr. Ferrier adds: "In this, we have a clear case, first, of vital irritation producing precisely the same effects as the electric current, and then destruction by inflammatory softening, resulting in complete paralysis of voluntary motion on the opposite side of the body, without affection of sensation." ("Functions of the Brain," pp. 200–202.)

Here, it will be noted, the spasms of the muscles began to occur contemporaneously with "signs of inflammatory irritation and *suppuration*." Are these

conditions favorable for increased functional activity? We have already quoted Dr. Carpenter's opinion in the negative to this inquiry. And if inflammation be attended not by exalted, but by depressed vitality, how much more is this true of suppuration, which appears to have shown itself very early in the process? Have we not here rather a failure or arrest of motor nerve force, producing the very condition which Drs. Kussmaul and Tenner, and the other experimenters mentioned above, found most conducive to the occurrence of muscular spasm and convulsion; the inherent contractile power of the muscles asserting itself when no longer adequately controlled by the restraint of corresponding nervous centres?

As to the subsequent presence of "paralysis" rather than spasm and rigidity, we have to observe:

1. The term "paralysis" is one which should be restricted to the nerve, and is not at all applicable to the muscle, whose power of contraction is not destroyed, but is merely restrained, and survives even the general death of the organism. Thus, Dr. Dickson remarks: "The opinion that a true muscular paralysis exists, is, I believe, an error." ("Med. in Relation to the Mind," p. 265.) If instead of regarding spasm and "paralysis" of muscle as opposite conditions, we interpret them as varying degrees, or stages, of motor nerve paralysis, we shall find in what is called muscular "paralysis," a loss of co-ordinate power and of voluntary control, the nerve still dominating the muscle; whereas, in clonic spasm we have an alternation of the balance of control between the nerve and muscle, and in tonic spasm, or rigidity, a cessation of motor nerve restraint, setting the muscle free to assert its inherent contractile power, and the latter passing into a degree of rigidity proportionate to its freedom. Softening of the brain frequently produces rigidity as well as "paralysis" of muscles, and the occurrence of one or the other may be held to depend on the greater or lesser degree of the paralysis affecting the motor centres.

2. It may be fairly questioned whether softening is a legitimate result of *suppuration*, and it would be interesting to know if, in Dr. Ferrier's case, the microscope was employed as the only certain means of verifying the presence of that state. (Dr. J. H. Bennett.) But there is nothing even in the presence of the softening here reported, incompatible with the view, expressed above, of a modified motor nerve restraint over the muscle in the state of "paralysis." For numerous instances are on record in which softening did not prevent the operation of motor impulse; and, as Dr. Carpenter remarks, "we are still far from having an accurate knowledge of the degree of structural change in the nervous centres incompatible with the continued performance of their function." ("Phys.," p. 669.)

3. Considering that animals sometimes not only survive, but in great part recover from much more severe operations than the one practised in this experiment, there is no certainty that death resulted from the exposure of the surface of the brain; and it is quite probable that other local or general causes, among which imperfect nutrition is likely to have been prominent, induced the fatal result. So far from the brain affection proceeding from bad to worse, the fact of suppuration at the close of the second day, and the absence of pus, sloughing, or waste of tissue, on the post-mortem, on or after the thirteenth day, seems rather to denote an effort of repair and a partial recuperation of function on the part of the cortical motor centres which enabled them to reclaim, in part, the loss of restraint over the muscles, as seen in the arrest of the spasms and the return to a quiescent state of the muscles, as the result of that restraint, though still powerless to the will.

These considerations serve to account for the phenomena of this case, as depending on differences in degree of an uniform condition of depression or paralysis of function of the cortical motor centres, to the exclusion of "irritation" as a factor in the case at all. And if it be true, as Dr. Ferrier asserts, that the application of a red-hot iron to these same cortical centres is not a source of "irritation," but produces rather paralysis of function, ought not the same doctrine to be applicable to a lesser form of injury, the result of mere exposure, which is surely a much less potent cause of irritation than the actual cautery?

In Dr. Ferrier's second case, "the left hemisphere of a monkey was exposed, and the cortical substance destroyed by the cautery," involving several recognized motor centres of localized muscles. "In this case the paralysis was confined to the same movements as result from electrical stimulation of the centre specified." (Ib., pp. 202-3.)

We have elsewhere collated authentic facts, from leading authorities, which appear to prove that electricity is neither a stimulant nor an irritant, but a paralyzer of nerve-tissue. We believe the facts justify the opinion that by this quality of its action it arrests motor nerve-power, and by so doing brings about the condition (referred to above) most favorable to the occurrence of muscular contraction. In this view of the case what does this experiment teach?

That electrical paralyzation of certain cortical motor centres produces definite localized contractions in muscles associated with these centres; the muscle contracting in proportion to its freedom from nervous restraint, as determined by the intensity of the current and the consequent motor paralysis.

Cauterization of the same motor centres produces a lesser degree of motor paralysis, and with this, less freedom of the muscles, which, while co-ordination is destroyed, are still sufficiently restrained from passing into spasm, and hence manifest that negative position known as "paralysis."

Here, again, no place is found for "irritation." Such a view of the case is, of course, directly antagonistic to the generally received doctrine that in a state of spasm and convulsion the motor centres are excited, and are "discharging" nerve-force with unusual vigor—an excess of function for which the lowered vital power of the afflicted centres appears very unfavorable, and a doctrine of the causation of spasm and convulsion, which the evidence of the able experimenters before mentioned shows to be untenable.

It is worthy of note, in this connection, that the hypothesis of the late Dr. Todd, which ascribed the muscular contractions of "late rigidity" to an "irritative" condition of the cicatrizing lesion in the brain, has been definitely discountenanced by such authors as Bouchard, Bastian, Hammond, and others, who find the cause of this rigidity in secondary *degeneration* of the spinal cord; and surely a condition of this kind is not favorable for the generation of an excess of nerve-power in the spinal centres, whereby the muscles are to be stimulated to pass into a state of rigidity.

The contractions of "early rigidity," have not, so far as we can ascertain, been attributed to "irritation" by any one; and if the theory of the day is to be maintained, that such contractions are dependent upon undue activity of the nervous centres, we are

left without any explanation of the rigidity here occurring.

It has, however, been customary for authors to attribute, sometimes an irritating, and at others a paralyzing, effect to congestions, extravasations, or other morbid states of the brain and cord. (Dr. J. H. Bennett's "Clin. Lec.," p. 406; Dr. Brown-Séquard, etc.) Dr. William A. Hammond thus expresses this idea: "The symptoms which follow spinal hemorrhage are the result of excitation and compression, the hyperæsthesia and the spasms being due to the former, and the anæsthesia and motor paralysis to the latter." ("Dis. Nerv. Syst.," p. 442.) Now, in cases where the paralysis (from compression) is confined to one limb, or to one set of muscles, and the rigidity (from excitation) to another, this view of the case might seem plausible; but, as usually happens, the paralysis and the contraction of the limbs or muscles go together. We might easily multiply quotations from the leading authors to prove this. Such phrases as, "paralysis ushered in by convulsions," "hemiplegia with spasms," "rigidity of paralyzed limbs," "coma, paralysis, and tonic spasms," "rigidity supervening in the paralyzed side," "unilateral convulsions" with, or following, "unilateral paralysis," "general paralysis with rigidity and contraction," etc., appear on almost every page of chapters devoted to this subject. Can we believe that in such cases the motor nerves, which are paralyzed, are at the same time conveying an excess of energy wherewith to stimulate the muscles to pass into the state of contemporaneous contraction here witnessed?

Dr. W. A. Hammond finds, "very conclusively," in progressive muscular atrophy, that the seat of disease is not primarily in the muscle, but "in that part of the nervous centre from which the nerves come which supply the muscle." "The destructive metamorphosis of the nerve-centre proceeds at a greater rate than its nutrition," and, as a consequence, the nerve suffers exhaustion and atrophy of its cells. (Ib., p. 674.) And yet, in every one of his cases of this disease, Dr. H. finds "fibrillary contractions" of the paretic muscles. What does this prove? That the exhausted and atrophied cells of the nerve-centres were generating and sending an excess of nerve-force to the muscles to induce these contractions? No; but that the deprivation of nerve-force, so natural under the circumstances, had liberated the muscular fibres from their customary nervous restraint, and the inherent contractile power of the fibrillæ of the muscle asserted itself accordingly, in proportion to their freedom.

Instead of dwelling longer on organic lesions, and the evident failure of nerve-power which they occasion—a subject which might be greatly extended—let us glance, in conclusion, at the nerve-centres in those purely functional disturbances which are also productive of spasm and convulsion.

Dr. C. H. Bastian refers to these states as consisting in "a mere molecular damage of a recoverable kind which must have taken place in the nerve-elements, a damage or derangement which, for a time, hinders their proper life-changes, and so puts a temporary stop to their functional manifestations." We ask the reader to note this language carefully. He continues: "In these cases a large amount of nervous energy is liberated in the cerebral hemispheres, and a rapid down-rush occurs upon the motor ganglia at the base of the brain, as we see by the cries and sudden muscular movements which accompany such states. This sudden down-rush of energy or 'discharge' upon the motor ganglia, induced by emotional causes, while it often produces chorea, seems occasionally to induce mere loss of speech, or the same temporary paralysis as that which is produced by the nervous discharges of an attack of unilateral epilepsy, which then goes by the name of emotional hemiplegia." ("Paralysis from Brain Disease," p. 27.)

Here, it is asserted, we have "a damage or derangement" of function in the nerve-elements, which "hinders their life-changes" and "*puts a temporary stop to their functional manifestations*," a condition which surely may well be held to result in *deprivation* rather than in excess of nerve-power. And yet it is under these avowed conditions of arrest of function that we are told excessive discharges of nervous energy take place from these same centres! And what is the result? "Chorea" (which other authorities assert results from nervous weakness), "loss of speech," and "temporary paralysis." Extraordinary effects, truly, from a "down rush" of "a large amount of nervous energy liberated in the cerebral hemispheres;" but just the effects, naturally, to be anticipated from a deprivation rather than from an excess of nerve-force. This "paralysis" is said to be closely associated with "unilateral epilepsy," another name for a species of hemiplegia. Mark the connection here again between paralysis and spasm or convulsion.

In this remarkable passage, which we have fully quoted, we find a process which begins in damage, derangement, and *arrest* of function; then presently exhibits a marked *excess* of functional activity, and speedily results in *loss of function* in the parts on which it is ultimately expended! Is there here the natural and proper sequence between cause and effect? And if such be really the scientific medical teaching of our time, what opinion will future generations entertain of us and of it?

Is it not fair to conclude that this confusion and contradiction are chargeable to the theory of the day, which requires a stimulus from the nerves as a condition of muscular contraction, and that this stimulus, in the case of spasm and convulsion, is sought to be derived from a hypothetical "irritation" in organic lesions and functional disturbances of the motor centres, in both of which cases motor nerve-power is really depressed, and, as a consequence of that depression, the muscles are proportionately set free to exert their inherent power of contraction?

ULCERATION AND CONTRACTION OF THE RECTUM FOLLOWING SEVERE DYSENTERY—LUMBAR COLOTOMY.

PATIENT PRESENTED TO THE NEW YORK ACADEMY OF MEDICINE, NOVEMBER 20, 1879.

BY ALFRED C. POST, M.D., LL.D.

RICHARD CLARK, laborer; born in Ireland; æt. 30; admitted into Presbyterian Hospital, December 22, 1877.

Previous history: In the fall of 1876, while at work making excavations in wet ground, he had an attack of dysentery. In the course of two or three months pus appeared in the stools. Under medical treatment, the stools lost their dysenteric character, but a more or less abundant purulent discharge continued until the time of his admission to the hospital, with rectal tenesmus and severe pains about the anus after each passage. The patient gives a good family history. There have been no syphilitic antecedents.

On admission, the general health of the patient

seemed to be good. A fissure of the anus was found posteriorly, and ulceration of the rectal mucous membrane an inch or more from the sphincter. He has about six passages a day.

December 23d.—Suppositories of compound gall-ointment and iodoform were ordered to be introduced into the rectum daily.

December 30th. As the fæcal matter is hard, and its passage causes severe pain, sulphur sublim. was ordered in ʒi doses morning and evening.

January 9, 1878.—The patient was etherized, and the sphincter ani dilated sufficiently to rupture some of its fibres. On examining the rectum with a speculum, no ulceration was brought into view, but there was circumscribed congestion of the mucous membrane, with some ecchymosis just within the verge. Sulphur discontinued to-day.

January 26th.—Patient's condition is somewhat improved. The fluid extract of ergot was ordered in doses of ten minims three times a day.

February 2d.—Injections of carbolic acid, one to thirty, were directed to be given morning and evening.

February 12th.—Patient was etherized, placed in Sims's position, and examined with a speculum, with the aid of a strong light. An annular constriction was found two inches from the anus, extending half way around the gut on its left side. This is probably the cicatrix of a chronic ulcer, of which a part remains unhealed on the posterior wall of the rectum. This spot is very sensitive. Ordered suppositories of iodoform, gr. v., morning and evening. Discontinued carbolic acid injections.

Feb. 26th.—Patient has had but one passage to-day; it was of soft consistence, and without pain. But there was pus with it.

March 24th.—When the stools are hard they give rise to severe pain. The stools are more or less purulent, but not bloody. Bougies have been introduced from time to time. Their introduction at first was quite painful, but it is now much less so.

April 7th.—Ordered injections of arg. nit., gr. ij. in ʒ iss. of water.

May 1st.—The strength of the injection was increased to gr. v. of arg. nit., in ʒ iss. of water.

May 21st.—The actual cautery was applied over the left iliac region.

May 30th. Discontinued injections.

July 1st.—Injections of arg. nit., gr. v., were resumed, and were continued until July 24th, when the patient left the hospital in a somewhat improved condition.

On the 27th of January, 1879, he was again admitted to the hospital, and his condition was much less favorable than when he left in July. When he came under my care in February, I found extensive ulceration in the rectum, involving the whole thickness of the mucous membrane and nearly the whole circumference of the intestine, and two or three inches in length. The patient suffered great pain when he had an evacuation, and for some time after. The ulcerated surface was touched with a sol. arg. nit., ʒ ss. to ʒ i., every second day, and care was taken to avoid constipation. But no marked relief followed, and he expressed a strong desire to undergo any operation which would afford a chance of relieving his sufferings. Accordingly, on the 27th of March I performed colotomy in the usual manner, in the left lumbar region. The operation was well borne, and the wound healed kindly. Since that time his evacuations have occurred without pain, through the artificial anus, and the general health of the patient has greatly improved. He wears a compress of oakum over the artificial anus, kept in place by a bandage around the body.

Nov. 20, 1879.—For several months past bougies have been introduced through the contracted portion of the rectum, beginning with instruments twenty-nine millimetres in circumference, and finally using a bougie fifty-seven millimetres. The instruments have been introduced every second day, and daily injections have been administered of liq. soda chlorin. diluted with eight parts of water. Minute portions of fæcal matter have passed through the rectum on one or two occasions; but there have been regular evacuations through the artificial anus, occasioning but little inconvenience to the patient. The artificial anus is on a level with the adjacent integument, there being no prolapsus of the bowel, and no irritation of the skin in the neighborhood. The patient is very well satisfied with his present condition as compared with his state before the operation.

The operation of colotomy for the formation of an artificial anus has usually been resorted to in intestinal obstruction occasioned by malignant disease of the rectum. Its performance in non-malignant ulceration and contraction of the rectum, although not unprecedented, has been very rare. But in cases of great severity and obstinacy, like that which is the subject of the present paper, the operation appears to me to be an eminently proper one, relieving the patient from great suffering, and affording a chance of many years of life and of comfort.

CONGENITAL ABSENCE OF RECTUM.

By ALFRED LUDLOW CARROLL, M.D.,

NEW BRIGHTON, S. I.

On November 23, 1878, I was called to see a male infant, born four days before, under the ministration of a midwife, who had finally discovered that there must be "something wrong" about her little charge, as no evacuation of the bowels had taken place, despite her ineffectual efforts to exhibit an enema, and in defiance of sundry doses of oil. The child was much emaciated, with pinched features, cold extremities, tympanitic abdomen, fæcal vomiting; in brief, seemingly moribund.

On examination, the anus and external sphincter were normally formed, but on attempting to introduce the finger a cul-de-sac was found, not more than half an inch in depth. The absence of any bulging or sense of fluctuation excluded the idea of a mere membranous septum or brief interruption of the rectum, and the abdominal distention was too great for palpation to afford a distinct clew to the situation of the upper intestinal pouch.

Perforating the anal cul-de-sac with a trocar (5 mm. diameter), I cautiously felt my way, keeping at first in the mesial line, and well back toward the concavity of the sacrum, and deflecting the instrument somewhat to the left after reaching the level of the sacral promontory. In the earlier part of the procedure the sensation was as of penetrating an unyielding, dense tissue; at the height of about two and a half inches this feeling of resistance diminished; but it was not until the entire length of the trocar (3¾ inches) had passed that the cavity of the bowel was reached, a large amount of flatus and some fæcal matter following the withdrawal of the trocar. The depth of the wound forbade any attempt to bring the intestinal pouch down to the anus, and my only hope was to maintain and dilate the sinus which I had just

made. First passing a broom-straw as a guide, I removed the canula and inserted in its place a flexible catheter with the tip cut off.

On the next day I found that the child had passed a comfortable night, nursing with appetite. No vomiting. Early in the morning the catheter was expelled, and a copious evacuation found its way through the wound. No elevation of temperature nor apparent abdominal tenderness. I nicked the edges of the perforation in the anal pouch and passed a No. 2 (French) bougie. For two weeks afterward I contented myself with the daily introduction of bougies, up to 32 (French), the patient meanwhile doing as well as could be expected, with two or three evacuations per diem; a large one always following the use of the bougie. Subsequently I made use of Thomas's dilator—an instrument resembling a slender glove-stretcher—with a view to enlarging gradually the artificial passage, and by this means was able to procure distention to about an inch and a quarter. The bowels were evacuated regularly and freely, and with normal action of the external sphincter; but the general condition of the patient remained discouraging, notwithstanding that it nursed with avidity and retained the milk without trouble. There were, however, no marked indications of failure until the sudden and severe onset of cold weather in the beginning of January, under which, in an insufficiently warmed cottage, the child rapidly sank, dying of asthenia on the morning of January 3d, six weeks after the operation. I was unfortunately unable to procure a post-mortem examination.

The fatal termination of this case cannot be regarded as a disappointment, considering the condition of the child when I first saw it, and its unfavorable surroundings; yet the operation itself may be called a *quasi* success, all of its dangers being passed, and the immediate cause of death unquestionably being the exceptional cold of the night of January 2d acting upon a feeble and ill-protected frame. I have been induced to report the matter fully, partly on account of the unusual depth of the exploratory puncture, partly because it illustrates some of the difficulties attending the choice of an operative procedure in similar deformities.

It is to be remembered that in the development of the fœtus the lower portion of the rectum is a pouch formed from the outer layer of the blastodermic membrane, while the middle portion of the primitive intestine, a closed sac, from which are to be formed the small and large bowel, down to the upper part of the rectum, is contained in the umbilical cord until the fourth month, its lower extremity subsequently constituting the cæcum, which lies at first in the mesial line, and from whence the colonic arch is projected, not reaching its full development, however, until the sixth month. A separate segment of the primitive intestine—the pelvic portion—is charged with the production of the middle third of the rectum. Hence we can readily understand the various degrees of malformation resulting from arrest at different stages of evolution. From the simple cutaneous closure of the anal orifice up to a series of detached pouches, or to abnormal openings at the umbilicus or into the uro-genital tract, pathological anatomy shows us every grade of deformity. The most easily remediable of these conditions is where the abdominal portion of the intestine and the anal portion of the rectum have reached each other but failed to completely coalesce, leaving a membranous septum where the two pouches came together. This condition is not difficult to recognize, from the sense of fluctuation imparted by the accumulation of meconium; and the mere division of the septum, with subsequent dilatation, will suffice to establish the natural order of things. But where the separation between the two pouches is of greater extent, the problem becomes vastly more intricate. We may have a fibrous cord—the remnant of the undeveloped pelvic portion of the primitive intestine—leading to a normally situated sigmoid flexure, or a mass of cellular tissue reaching up in the pelvis to an indeterminate extent, the blind termination of the upper bowel being anywhere between a centrally placed cæcum and the normal side of the descending colon. This uncertainty affords the strongest argument against Callisen's—or, as it is commonly called, Amussat's—operation of left lumbar colotomy, and leaves the balance in favor of Littre's proposal to make an opening in the left iliac region, where, even if the sigmoid flexure be absent, some coil of intestine can be reached. But in all such cases the question arises, whether death be not preferable to the chance of a life burdened with the disgusting condition of an artificial anus. Moreover, neither of these operations has yielded encouraging results when performed for congenital deformity; most of the patients having died within a few days. The only really satisfactory instances that I know of are those of a girl operated on by Duret in 1793, by Littre's method, whom Gerraud (quoted by Velpeau) saw alive and well twenty-one years afterward; and a boy mentioned by Erichsen, on whom lumbar colotomy had been performed eight years before for congenital absence of rectum and anus. A few other "successes" are vaguely reported, but the lapse of time between the operation and the report is either not stated at all, or is so brief that the permanence of the success is left in doubt. At all events, with the exception of Gerraud, I know of no one who has met with an adult bearing an artificial anus established for the relief of a defective rectum at birth.

Most modern surgeons agree in advocating the perineal operation, though this also has failed to prolong life for more than a few weeks at most in the vast majority of instances; the few examples of more lasting benefit being where the intestine lay but a short distance from the sphincter, save in a case operated on by M. Fristo (recorded by Velpeau), where the wound extended to the depth of three inches and a half. In this case, however, the duration of life is not given.

Theoretically, the most favorable results should be obtained where the bowel lies near enough to permit its extremity to be brought down to the external orifice, thus establishing a continuous mucous canal —as was first, I believe, done by Amussat in 1835. But even here, few patients have survived more than three or four months at longest. When the interruption of continuity is greater, as in the case I have related, all that can be accomplished, whether by trocar or bistoury, is to create a fistula which must have a constant tendency to contract, and which, though perhaps sufficient for the semi-fluid discharges of infancy, will almost inevitably give rise to trouble when the fæces become more consistent. It was for this reason that I attempted, though with small hope of ultimate success, to dilate the artificial canal to the utmost by the "glove-stretching" process. If the external anus were absent the better plan would be to dissect inward with the bistoury, using the finger as a guide; but where a normal anus exists, I should prefer to explore with the trocar, forasmuch as a smaller wound is made if we fail to reach the intes-

tine, while, if the latter be found low enough down, the knife may be employed to complete the operation. The chief drawback to the trocar is the difficulty of making sure that the lowest available point of the bowel is entered. In my case, in lack of an autopsy, I cannot tell what part of the intestine I perforated, and can only surmise, from the extent to which a bougie could be passed, that the descending colon terminated in a large cloaca.

The deaths in nearly all the cases which I find recorded have been from asthenia, and I believe that the alleged source of danger from absorption of septic matter in the perineal operation is imaginary rather than real. There is nothing necessarily septic in the fæces while in the intestine, and we do not fear their contact with a wounded surface in other operations about the rectum. At any rate, in the instance under consideration, there was no indication of blood-poisoning, notwithstanding the somewhat rough usage to which the track of the wound was subjected.

To sum up, it seems to me that the following propositions may be stated:

1. In congenital malformations of the rectum, exploration from the perineum should always be first essayed, and by preference with the trocar. If the occlusion consist of a simple membranous septum, it need only be incised crucially with a probe-pointed bistoury. If the intestinal pouch be sufficiently near to the surface, the track of the trocar should be enlarged by the knife, and an endeavor made to bring the mucous lining down to the external wound. If, however, the interruption of continuity be too great for this proceeding, we should be content with dilatation of the fistulous passage, although with small chance of prolonging life beyond a few weeks.

2. In case of failure to find the bowel with the trocar, a forlorn hope may be sought in colotomy. And here, in view of the probability that the arrest of development has occurred at an early stage, I should choose the right lumbar region as the site of operation.

3. Where the deficiency of the rectum involves a considerable part of its course, the prognosis is almost hopeless, whatever method of operation be adopted.

CLINICAL CASES.—I. LOCAL USE OF ERGOT. II. GUAIACUM IN HÆMATURIA.

By JOHN N. UPSHUR, M.D.,

RICHMOND, VA.

Case I.—I was called, on the 4th of March, 1878, to see Mrs. E. S——, who gave the following history of herself:

"I am 32 years old; married eleven years; have never had any children. Have been very irregular in my menses, and suffer more or less constant pain in my left side, pain in my back, and sense of weight in the lower part of my stomach; when the time for my period comes, I spit some blood and have an uncomfortable sense of fulness about my head; of a constipated habit, though bowels are moved daily, insufficiently; at each stool lose more or less blood; it is sometimes so free as to blanch the cheek; have suffered with this hemorrhage from the rectum for twelve years, and it is always increased by any undue exertion."

At the time of my first visit, her complexion was sallow, appetite capricious, and a general feeling of indisposition to make any exertion. Had been under the care of two other physicians of this city. Vaginal examination revealed a womb somewhat prolapsed, enlarged, and os abraded, extending up the cervix nearly to os internum; some leucorrhœa. Rectal examination showed an ulcer just on the margin of the internal sphincter, with edges abrupt, as if cut out with a punch, about four lines in diameter, and springing from the bottom of it a pyramid of granulations which bled profusely on the slightest touch. She was put upon a general tonic treatment of iron and the hypophosphites, undue exertion prohibited, and the bowels kept in a soluble condition by laxatives and enemas. Her womb trouble, under the local application of Churchill's tincture of iodine, glycerine balls, and the hot douche, was soon relieved, and the application of a Hodge pessary, which was worn for about six months, entirely restored this organ to its normal condition.

All sorts of applications—both caustic and of a soothing and astringent character—were made to the rectum, but with only temporary benefit; the hemorrhage not being restrained for more than a week or ten days at a time, and the ulcer obstinately refusing to heal. There was an attempt at the perfect restoration of the menses, but this was not accomplished so long as the hemorrhage from the rectum continued. After a month or two of this treatment (she having been very averse to the knife), assisted by my friend Dr. Hugh M. Taylor, of this city, I freely divided the sphincter muscle, and kept her in bed for ten days. From this treatment she derived much benefit, and had a longer exemption from the rectal hemorrhage than ever before; the menses became more regular, and her general health improved, and in October I discharged her, flattering myself that she was permanently cured. But the hemorrhage continued to recur at intervals of three to five weeks, and in July, 1879, she again came under my care for treatment for the old trouble. Examination of the rectum showed the old ulcer healed, but the lower end of the incision made a year before was still open, and manifested no inclination to repair. Just at the margin of the internal sphincter muscle, about the site of the old ulcer, there was a villous tumor about the size of a nutmeg, with sessile base, and very red in appearance. A few applications of Battey's solution No. 2 (iodine, ʒ ij. and liq. carbolic acid, ʒ vi.) soon healed the old cut, but the bleeding recurred, and no local application that I could make was of any benefit to it. Having had my attention called several years ago to the injection of ergot into the rectum in the treatment of piles, by reading a report of the successful treatment of some cases of this malady with this agent, by Dr. Semple, of Hampton, Va., and more recently by a paper from the pen of my friend Dr. Wm. C. Dabney, of Charlottesville, Va., on the local use of ergot, I determined to give it a trial, ordered a suppository composed of gr. xx. ext. ergot, with some anodyne and cocoa-butter, to be introduced twice daily, and kept the bowels open by co. sennæ powder taken at night. One week of this treatment had reduced the tumor to half its original size, and it presented a pale, withered appearance; *no hemorrhage*. At the end of the second week still more improvement, and the patient expressed herself as greatly comforted. Directing her to continue the suppositories and let me know if she stopped improving, I discontinued my attendance. Nov. 25, 1879, visited Mrs. S—— to-day; says she has had *no bleeding for four months; thinks hers is entirely well. Menses regular* and normal, and

declares that *she feels better, can walk and exert herself more than ever before.* She still uses the suppositories as a matter of precaution.

CASE II.—Was called, in January, 1878, to see Miss E. H——, æt 29, by occupation a seamstress. She was up, and engaged as usual with her needle. Had been previously healthy, except that about a year before she had had an attack of hæmaturia lasting for several months, resisting all treatment, though she was attended at the time by a man of skill and long experience, and finally stopping of its own accord.

The writer was called in to prescribe for the same trouble, which had recurred without, so far as could be ascertained, any cause. Her family was of an intensely rheumatic and gouty diathesis, though not one of them a free liver. No cause being apparent, the treatment was difficult; and she took for three months various treatment—tonic, ferruginous, diuretic and astringent—with varying results, and at the end of that time was no better than in the beginning. Analysis of the urine at various times, chemically and by the microscope, kindly made for me by Prof. L. S. Joynes, of this city, failed to reveal *anything* save evidence of the presence of blood. Every treatment that the writer could think of—all the suggestions made by some of the best men of the profession in Richmond—were tried, with *no success* whatever.

At last, being in despair, and "necessity" in this case as many others in life proving to be "the mother of invention," I determined to try the tinct. of guaiacum, for the sole reason of its reputation in the treatment of congestive dysmenorrhœa, tonsillitis, &c., and because I believed the hemorrhage might be kept up by a passive congestion of the kidneys. A drachm three times a day in half a tumbler of milk was ordered, and at the end of the second day the hæmaturia had entirely ceased, and did not return again for a year, when, on her own motion, she took the tinct. of guaiacum again, in the outset with the same prompt relief, and has since had no further trouble.

This case was reported to the Richmond Academy of Medicine; and the result obtained in the above case, subsequently confirmed by Dr. J. G. Cobell, of this city, in a case of his, the hæmaturia being checked in *two days*, all previous treatment having failed, and in *two* similar cases under the management of Dr. H. H. Levy, also of this city. I do not attempt to explain the *modus operandi* of this remedy, but make only a simple unvarnished statement of facts; and if I can add a remedy in the treatment of this malady, which, by further trial, will prove as beneficial as in these few cases, I shall be more than repaid. Every new fact in the experience of any medical man who loves his profession, and would thereby benefit humanity, ought to be given publicity to that end, and it is such a motive which has prompted the report of the above cases.

615 E. FRANKLIN STREET.

SIMPLE METHOD FOR THE TREATMENT OF PURULENT OTITIS.—In place of a syringe and a tampon of cotton, one can use a round piece of wicking. This may be introduced by the patient himself with a gentle rotary movement. After it has reached the bottom of the ear, it quickly absorbs the pus and is then to be drawn out. The movement is then repeated until the ear is clean, when a fresh piece of wick is left instead of the conventional cotton. The wick may be medicated with an alkaline solution or with common salt.—*Gazette Hebdomad.*

Progress of Medical Science.

DIPHTHERIA AND MILK.—There has long been a suspicion that milk was occasionally a carrier of the diphtheritic poison. It has even seemed probable that the diphtheritic poison originated with some morbid condition in the cow itself. It was shown in 1869 by Dr. Thorne that the milk from cows affected by foot and mouth disease was injurious to human subjects. About a year ago a committee of the London Pathological Society was appointed to investigate the relation between milk and diphtheria. Their work is not yet finished, but meanwhile several outbreaks of diphtheria have occurred in England, which show the importance of a more thorough knowledge of the matter. The history of these outbreaks has been given by Mr. E. L. Jacob.

On a particular day ten persons in the village of Weybridge were attacked with diphtheria. During the subsequent nine days fifty more had the disease. The epidemic then suddenly stopped. The persons affected were mostly of the better class, and were found to be living in all parts of the village. The only thing in common was, that all the families affected had milk from the same dairy. Twenty per cent. of the families supplied by this dairy had diphtheria. Eleven of these families had milk from two or three cows exclusively. Ten out of this eleven had diphtheria. The remaining 139 families supplied by this dairy had more or less of the milk from the same two or three particular cows. Twenty-one of these 139 families were attacked. The evidence pointed with great certainty toward the milk as the source of the infection, and, with less probability, toward the two or three selected cows. Investigation failed to discover any disease in the cows, or any especially bad hygienic condition about them. It was possible, however, that the cows had had some disease, or that the milk had been diluted with polluted water.

At the Princess Mary's Village Homes forty-eight persons were attacked with diphtheria. The water-supply of the farm which supplied the milk to the homes was found to be impure; one of the cows had the garget; and the epidemic began rapidly to decline eight days after the stoppage of the milk-supply.

In these cases the evidence is not so strong that milk was the cause. Still there was nothing to which the epidemic could be attributed.

At Leatherhead, in the course of six weeks, fifty five persons were attacked with diphtheria. As respects water-supply, drainage, school-congregation, and personal infection, there was very little in common. Almost all of the families affected, however, had milk from the same dairy. Nothing wrong could be discovered at this dairy, except that the water-supply was not very good.

At Sutton, fifteen persons were attacked with diphtheria within two days. These persons lived in different parts of the town, and under good sanitary conditions, but they were all supplied with milk from the same dairy. Nothing wrong could be discovered at this place.

The facts thus given, though inconclusive, have very great importance as showing the necessity of a thorough investigation of the true relation of milk-supply to diphtheria.—*Brit. Med. Journ.*, Nov. 8, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 13, 1879.

ASYLUM MANAGEMENT.

Notwithstanding the report of the Senate Investigating Committee, referred to in our previous number, the medical profession should not be discouraged in continuing its efforts at reform in insane asylum management. The fact that the petitioners from the New York Neurological Society did not make out a case, simply proves that they came before the Senate committee unprepared for the investigation. But reforms in asylum management are still as necessary as before, and must continue to be urged even at the disadvantage of being against what now appears to be present public opinion.

In view of this necessity, it is encouraging to know that a number of influential citizens, representing all the professions, have taken the matter in hand, with a determination of suggesting the necessary reformatory measures and enforcing their consideration upon our legislators. Public opinion is to be created in favor of the movement in another manner than that of making the asylum superintendents the apparent martyrs to personal animosities. On previous occasions we have pointed out the deficiencies in asylum management, and it may not be amiss to direct attention to them again by way of suggesting to the citizens' committee the propositions the verification of which would promise the best practical results.

Most insane asylums are too large for efficient management; and yet they are in nearly every case greatly overcrowded. A great proportion of our State insane are in poor-houses or wretched county asylums, where they get practically no treatment at all. Only two of our county asylums are efficiently managed. The number of attendants in asylums is small, and, in some instances, their training insufficient. There is, in consequence, too much mechanical restraint; there is not enough systematic exercise, amusement, or employment; the present system of medical care is inefficient; the acute and chronic insane are treated together, and it is now pretty generally agreed that this should not be done. The provisions for early treatment of the insane are entirely inadequate, although its great importance is everywhere acknowledged. There is, in many cases, need of better diet, and of proper appliances of every kind. Few institutions are capable of doing any good pathological work.

We can, in addition, make the general complaint that clinical and didactic instruction in insanity is at its lowest possible ebb, and it is for this reason, in part, that so little attention or interest can be aroused among medical men on the subject of lunacy reform.

The measures which both the profession and the public should strive for ultimately should be: The establishment of lunacy commissioners, who should devote their time exclusively to the work of overseeing the asylums; the erection in future of asylums that shall be economically built, and shall not accommodate over 250 or 300 patients; the reorganization of the medical and executive arrangements for the management of the institution. This should include a fuller and a better paid, and, if possible, a better qualified medical staff. There should also be a visiting staff, when practicable—one that would be something more than a mere ornamental appendage. There should be trained nurses in numbers sufficient to make mechanical restraint a rare necessity. There should be arrangements for treating the acute and chronic insane in separate institutions, and for getting the acutely insane under treatment as soon as possible. The medical profession should join the public in demanding that measures for securing these reforms be instituted as soon as possible. It should ask, also, more exclusively on scientific grounds, that the clinical and pathological material be utilized as much as possible for the benefit of students and physicians. It may appear that these best methods, suggested above, are very Utopian. There is not, however, anything intrinsically difficult in carrying them out.

The trouble lies in the political influences that surround present institutions, in the fact that old methods have been firmly engrafted upon us by time, and through the existence of large and expensive buildings in which the old routines are established. The question of money, which a reform always at first requires, is also a prominent one.

There is, however, the fact that these evils do exist, and are crying ones. There is the fact that improvement is not at all impossible. These things will give encouragement that something will eventually be accomplished. When fully known and appreciated, no civilized and humane community will long tolerate them.

GRATUITOUS SERVICES TO CLERGYMEN.

Our esteemed contemporary, the *Pharmaceutical Record*, has in a recent number a very sensible editorial

article on the gratuitous treatment of clergymen. It is the practice, generally, whenever attendance is given to a minister's family, never to demand pay therefor. A great many practitioners have been at a loss to understand why such a distinction should be made in favor of this particular class of professional gentlemen. If they are poor, then of course the physician is only too ready to attend them for nothing. It is true, the clergyman is a man of influence in the community, and the young practitioner is generally glad to have it known that he has his confidence. But practice obtained in that way is generally not worth a great deal, especially if the unfortunate practitioner has the representatives of all the denominations of his village on his list. Even then it is quite likely that his distinguished patients may recommend some quack to his parishioners, especially if that individual has made a fortune, and is a prominent pew-holder in the church. We are sorry to say it, but the medical profession really owe very little to the clergymen. The good influence which might be exerted in behalf of legitimate medicine is thrown into another channel, and charlatanry is endorsed not only in religious papers, by widely circulated certificates of remarkable cures, but even in the pulpit itself. Of course, there are notable exceptions to this rule, but we are speaking of clergymen as a class. When we look at this question in a purely matter of fact light, there is no real reason why a clergyman should be free from pecuniary obligations to the profession. If the physician wishes to aid the cause of Christianity by caring for its servants, he can do it in the ordinary way. The assumption of more than this obligation by holding himself out as a general dispenser of charity to the clergy, not only gives him more than his share of good works, but imposes upon his professional brethren an extra burden, which to refuse might be considered heathenish.

We are not talking of poor and really deserving clergymen; but of those who have as large, or, as is very often the case, larger incomes than the physician who attends them. In such cases we are constrained to ask, where is the return for services rendered? Pecuniarily speaking, does the doctor get an equivalent in the free services of the minister? This question is answered in part by the following remarks of the editor of the *Times*:

"If the physician attends church—and let us hope he does—he assists in paying his minister's salary. If he marries—and let us again hope he does—he pays his minister a fee which five times exceeds what he would ask for granting the clergyman a similar amount of time. In case of death in his family, he perhaps would hardly feel comfortable unless he sent his minister a fee for his services at the funeral. Now the real question arises, why should he not receive a reward for his services when the minister calls for them?"

THE WAY TO SELECT A PROFESSOR.

A NEW departure is to be made in Chicago in the selection of a professor for one of the medical colleges of that city. It is announced, as will be seen in another column, that a public *concours* is to be held for the position at a certain time next month, the candidate lecturing on a subject previously selected before the faculty and the medical class. Applications are received from any part of the country. We speak of this plan for the purpose of giving it an unqualified endorsement, and hope that the example will be followed by all the medical schools in the East. If the college does not succeed in obtaining a first-class teacher, it will not be because it has not made an honest effort to do so.

We hope that there will be a great number of applications, so that a good opportunity will be offered for a proper selection. We shall await the result with considerable concern, as its success will serve to establish a very praiseworthy precedent.

PERCENTAGE FROM DRUGGISTS.

WE are informed by the Chicago *Pharmacist* that many of the physicians in Chicago demand as high as forty per cent. on the gross price of their prescriptions to patients, others as low as twenty-five per cent., while still others are content with their cigars and liquors free. If this be true, many of the physicians in Chicago are in a very bad way. We are inclined to think that the statements must have some foundation in fact—if not in Chicago, at least in different parts of Michigan, for the *Michigan Medical News* comes forward to excuse the evil. While the editor does not endorse the practice, he rather boldly says "that there are circumstances in this country and in these times which remove it from the realm of moral turpitude." These circumstances appear to be, that the honest and conscientious doctor cannot collect all his bills, and must therefore have a "collusion with the druggist." "What with dead-beat patients and prescribing druggists, the physician is but too often driven to 'execute the villany he is taught.'" The inevitable conclusion appears to be, that if the balance is to be struck against such patients as will not pay, and against the druggists who will prescribe, the burden is narrowed down to the conscientious patient who not only pays his doctor, but also the druggist and the percentage. Verily, we believe that it is time for the golden geese in Illinois and Michigan either to migrate or stop laying.

SANITATION AT MEMPHIS.—A citizens' committee, at a meeting in Memphis, November 30th, adopted the recommendations of the National Sanitary Commission in regard to sewerage and the general sanitary care of the city. Efforts are to be made to obtain money of the Legislature for carrying out the proposed measures.

Reviews and Notices of Books.

THE HISTORY OF MEDICINE IN NEW JERSEY AND OF ITS MEDICAL MEN, FROM THE SETTLEMENT OF THE PROVINCE TO A.D. 1800. By STEPHEN WICKES, A.M., M.D., Acting and Honorary Member of the Medical Society of New Jersey, etc. 8vo, pp. 449. Newark, N. J.: Martin R. Dennis & Co. 1879.

IN the year 1875 the Medical Society of New Jersey resolved to publish its old transactions, and by virtue of his official relations to the Society, Dr. Wickes became the editor of the volume. What appeared to be an accident in the beginning turns out to be a very fortunate thing for the Society and the profession. Dr. Wickes has given us, as the results of his careful research and patient labor, one of the most interesting volumes which it has been our fortune to read. Commencing with the beginnings of population in New Jersey, he tells us what was the early medical practice in the province, and gives an intelligible and succinct account of the different diseases which were prevalent at that period. The history of inoculation as practised in New Jersey claims attention. The account of the formation of the first medical societies, and of the conditions of medical literature and education, are extremely instructive to the medical historian, as showing how keenly alive were the forefathers in medicine to the necessity of maintaining the reputation for learning and the dignity of their calling. The story of legislation is full of suggestive references to past history, which is now and again repeating itself in different medical organizations over the country. The practice of obstetrics was, to all accounts, in an exceedingly crude state, and we have a short account of the first efforts at teaching this branch of our art. The condition and management of the military hospitals recall some incidents of the American revolution, as do also the biographies of a host of medical authors, which fill the latter half of the work. A paper entitled "Observations on that terrible Disease vulgarly called the Throat Distemper, by J. Dickinson, A.M.," and written in 1740, is an interesting document, and gives a good idea of the crude notions of pathology and therapeutics which prevailed at that period. The fee bills which are published in full, as well as the accounts of some of the old fathers, help to make instructive history in regard to methods of practice and the charges therefor. But it is impossible to detail the excellences of this instructive history; it is, perhaps, sufficient to say that the accomplished editor deserves the thanks of the entire profession for the admirable manner in which he has performed his task.

WALSH'S PHYSICIAN'S HANDY LEDGER. Ralph Walsh, M.D., Washington, D. C.

THIS is an exceedingly handy, simple, and convenient-sized ledger. It is intended as a companion to the call-book and tablet by the same author, but can be used with any visiting-list desirable. Each page is devoted to one patient for the year, there being spaces for each day of the month. The amount per month can be footed up at the end of each month-line, or the whole amount of the year's attendance can be given at the foot of the page. Spaces are also made in appropriate places for a credit account, monthly or yearly, with date of payment. By this arrangement the physician can tell at a glance on what particular days he made his visit, how many per day, and when the patient paid him on account, and the amount. Facing each patient's page is another, on which is noted obstetrical, surgical, and miscellaneous attendance, for which special charges are made. The general plan of keeping accounts is otherwise the same. It is substantially bound, has good paper, clear type, and is altogether a serviceable volume.

ATLAS OF HUMAN ANATOMY. Containing 180 large plates, arranged according to Drs. Oesterreicher and Erdl, from their original designs from nature, with full and explanatory texts by J. A. JEANCON, M.D. Cincinnati, Ohio: A. E. Wilde & Co.

THE object of this work, as stated in the preface, is to "bring before the medical public a pictorial representation of all parts of the human body in a size and form which ordinary works on anatomy fail to furnish." We have received the prospectus, which contains a life-size engraving of head, neck, and shoulder, showing the distribution of the carotid, subclavian, and axillary arteries. The figure is artistically drawn, is printed on fine paper, and is accompanied with explanatory text. As far as can be judged from this specimen, the work will be a very valuable one.

THE SKIN AND ITS TROUBLES. New York: D. Appleton & Co. 1879.

THIS, the eleventh of the English Health Primers, is presumably written by Tilbury Fox. The skin is shown to be a much-abused organ, and many points instructive to the laity are given. The necessity of attention to the constitutional condition in skin diseases is insisted on throughout the book.

FIRST BOOK OF QUALITATIVE CHEMISTRY. By ALBERT B. PRESCOTT, Professor of Applied Chemistry in the University of Michigan, etc. 8vo, pp. 160. New York: D. Van Nostrand. 1879.

PROF. PRESCOTT has prepared this little manual for classes which take a short course in qualitative chemical work. Although for such purpose it is much fuller than is absolutely necessary, the general design and arrangement are very good. The book will, no doubt, prove very useful to the many who can never expect to gain more than superficial acquaintance with experimental chemistry.

PHYSICIANS' POCKET DAY-BOOK. By C. HENRI LEONARD, M.A., M.D. Detroit: C. Henri Leonard. 1878.

DR. LEONARD has furnished the profession a very good day-book. It contains also a small ledger, and is probably quite complete enough to serve all the purposes of our young men "with a small but growing practice."

PREVENTION AND CURE OF CHRONIC CONSUMPTION. By DAVID WARK, M.D. 8vo, pp. 103. New York: The Authors' Publishing Co. 1880.

STARTING with Hutchinson's tables, which show that the vital capacity of the lungs steadily decreases with the progress of consumption, the author assumes that proper physical training will prevent this decrease and stop or cure the consumption. This theory is padded with a mass of physiological facts and fancies, and ornamented with a recital of several private cases that have been cured by the new treatment. The author has evidently crammed up a good deal on physiology, and though he has not yet got the science quite clear in his head, his statements are tolerably accurate. They will probably impress the

public, for whom the book is designed. The history of "cases cured" will also make a very effective appearance.

To the profession the book presents nothing new—except its author.

STUDENTS' AID SERIES: AIDS TO ANATOMY. By GEORGE BROWN, M.R.C.S., etc.

AIDS TO FORENSIC MEDICINE AND TOXICOLOGY. By W. DOUGLAS HEMMING, M.R.C.S.

AIDS TO THERAPEUTICS AND MATERIA MEDICA. Part I. The Non-Metallic and Metallic Elements; Alcoholic and Etherial Preparations, etc. By C. E. ARMAND SEMPLE, M.R.C.P., London. New York: G. P. Putnam's Sons. 1879.

THE Students' Aids Series is an American reprint of a number of small works by English authors. Most of the books have had considerable popularity in England, and they are likely to meet the same reception here. They are written by reliable men, and are printed in excellent style. Not much can be gotten within sixty or seventy pages, however, and their value, except to assist in "cramming," is slight.

Of the three before us, that on Forensic Medicine covers ground not in the text-books ordinarily purchased by students, and is of more value on that account.

We confess we are unable to find anything specific to praise in the other two books.

HYGIENE OF THE VOICE: ITS PHYSIOLOGY AND ANATOMY. By GHISLANI DURANT, M.D., Ph.D. A New and Revised Edition. 8vo, pp. 189. New York: Cassell, Petter, Galpin & Co., 1879.

DR. DURANT'S treatise on the Hygiene of the Voice covers very nearly the same ground as that of Mr. Holmes's book recently reviewed by us. It is, however, less pretentious in its composition; it contains less historical matter, and the subject is not so elaborately analyzed and classified. The physiological discussions, we may add, are also less thorough, and the anatomical plates and descriptions not so good. The present work, however, is full of useful suggestions, and altogether is a more practical and useful volume. A very clear and satisfactory account of the vocal organs is given, this occupying about half the book. The rest of the space is devoted to hygiene. Under this head the doctor makes some special attacks upon customs not unfrequently indulged in by speakers and singers. Cold drinks, tight lacing, the wearing of red flannel, whispering, loud talking, and laughing—above all, the use of troches, are interdicted. As a substitute for the latter to lubricate the throat, the author uses a mixture of *pimpinella saxifraga, pulmonaria, erysimum*, and bromide of ammonium, held in gum acacia.

Some curious facts in regard to the eating and drinking habits of noted artists are given. Thus, in the intervals of rest during exercise of the voice, Wachtel swallows the yolk of an egg beaten up with sugar; Mme. Sontag eats sardines; Mme. Patti drinks seltzer water; Mme. Nilsson, beer; and Lablache eats two salted cucumbers. The tendencies seem to be, on the whole, towards beer and tobacco.

In an appendix to the book, a number of formulæ for colds, sore throat, etc., are given.

The publishers have done their work extremely well, and made the book a model of neatness.

THE THROAT AND VOICE. By J. SOLIS COHEN, M.D. Philadelphia: Lindsay & Blakiston. 1879.

THIS is one of the series of American Health Primers. It is more of a medical book than is that of Holmes or Durant, the first half being devoted to short descriptions of diseases of the throat and larynx. As these descriptions for the most part end in recommending—very properly—that a physician be called in, their exact utility is not very apparent. The rest of the book is devoted to the physiology and hygiene of the voice. The author's name is sufficient guaranty that the work is well done.

There are a number of good illustrations.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Nov. 20, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Assistant Secretary, DR. EDWIN F. WARD.

The Librarian, DR. JOHNSON, reported that, since the last stated meeting, the library had received seven bound, four unbound volumes, twenty-eight pamphlets, twenty-seven numbers of medical journals, and an atlas containing ten micro-photographs, a present from Dr. John P. Gray, of the State Lunatic Asylum.

On motion, the thanks of the Academy were extended to Dr. Gray for his valuable contribution.

THE PRESIDENT then introduced Dr. Stoddard, of Michigan, and Drs. White and Alden, of the U.S.A., and invited them to take seats upon the platform.

The Statistical Secretary, DR. F. V. WHITE, announced the death of Dr. Oliver White, and gave a brief sketch of his life.

The President appointed Dr. Gouverneur M. Smith to prepare a memoir of the late Dr. Oliver White.

LUMBO-COLOTOMY FOR NON-MALIGNANT DISEASE.

DR. A. C. POST presented a patient upon whom he had performed lumbo-colotomy (vid. page 560).

DR. LEWIS A. SAYRE thought the case presented by Dr. Post marked a new feature in American surgery; for he knew of no case in which the operation of lumbo-colotomy had been performed in a case of non-malignant disease. He was not able to see any difference between malignant disease and an incurable disease, so far as the propriety of an operation for relief was concerned; if any, it should be in favor of the latter; for by it years of otherwise unavoidable suffering might be avoided. He thought the operation under the circumstances was perfectly justifiable; it was in accordance with a principle, and he believed it was original with Dr. Post.

DR. POST remarked that Dr. Van Buren had expressed himself entirely in favor of the operation under the circumstances mentioned.

DR. HOWE referred to a case which he reported to the New York Pathological Society last winter. The patient had a history of syphilis, her vagina was almost entirely closed as well as the rectum; she was emaciated and bed-ridden. The operation of lumbo-colotomy was performed after consultation; it resulted in complete relief, and the woman was yet alive and enjoying good health. Subsequent to the operation her rectum and vagina became completely closed.

EXCISION OF THE HEAD OF THE FEMUR IN UNUNITED INTRA-CAPSULAR FRACTURE.

Dr. J. W. Howe read a paper on the above subject, basing it upon a case which came under his observation in Charity Hospital, and had the following history: A female patient, æt. 62 years, was admitted to Charity Hospital March, 1876. No hereditary taint of any kind, except the love of whiskey. Three months previous to her admission she received an intra-capsular fracture of the neck of the femur by falling at the doorstep, and was treated eleven weeks by means of Buck's extension apparatus at the Chambers Street Hospital, after which she was sent to Charity Hospital. When admitted to Charity the limb was not painful when at rest. A plaster-of-Paris splint was adjusted and worn two months without improvement. It was removed, and Buck's extension with the long splint substituted and worn for six weeks, but without benefit. The limb was suspended by means of a broad bandage passing under the foot and up around the neck, and the patient placed on a pair of crutches, but that failed because of the pain produced, and the patient again took to her bed. Crepitus was as well marked as at the beginning of the treatment. The patient remained in bed eleven months afterward, without improvement. Finally, excision, with the patient's consent, was performed. When the joint was opened about a drachm of what seemed to be inspissated pus mixed with a small quantity of bony débris was found. The neck of the femur was completely absorbed. There was nothing left of the globular head. There was also found a thin, sharp spiculum of bone, about an inch in length, which belonged to the lower fragment. The head of the bone was easily loosened and removed, and the spiculum of bone and the broken-down material in the cavity of the joint. Buck's extension was applied, and a long side-splint, and the apparatus was kept in position six weeks. A plaster-of-Paris splint with a large fenestra was then adjusted, which enabled her to move about a little upon crutches. The plaster splint was worn two weeks, when it was renewed because the first one produced some irritation at certain points. At the end of three months the wound was completely healed, the patient was able to get in and out of bed without assistance, was free from pain, and able to walk with crutches. The knee-joint remained considerably stiffened, and was somewhat painful.

Dr. Howe thought that trouble would have been avoided by operating twelve months previously, before the muscles and anatomical structures of the knee and ankle-joints became affected, as they necessarily would by disuse, etc. It is two years since the operation was performed, and the patient is in excellent physical condition, and able to go about comfortably by the aid of crutches. The muscles of the limb are gaining strength, and are in better condition than when the operation was first performed. The knee-joint remains stiff. No pain at the hip, except on forced flexion or abduction.

He thought the operation was justifiable in cases of intra-capsular fracture of the neck of the femur occurring in persons in good general condition; under anti-septic treatment it was safe; and it afforded as complete relief as if the fracture had united in the beginning by firm ligamentous union.

His experience was as follows. In intra-capsular fracture of the neck of the femur, ligamentous union is the best result that can be obtained, no matter what treatment is adopted. In a large number of cases no union ever takes place, and in this class of cases the patients are helpless and bed-ridden from the beginning.

Absence of attempts at union commonly arise from the following causes:

1. Superficial caries of the fractured ends of the bone, especially affecting the upper fragment in consequence of small blood-supply.

2. The necrosed portion of bone acts as a foreign body and excites inflammatory action in the adjacent bony tissue, and ultimately brings about complete destruction of the upper fragment; much of it is absorbed, but much remains.

3. Irritation and inflammation of the surrounding soft parts produced by injuries inflicted by sharp spiculæ of bone belonging to the lower fragments. These were the important causes; but malnutrition, senile atrophy, non-apposition of fragments, etc., preventing repair of bones in other parts of the body, were not to be excluded, yet excision was performed for their relief.

A good result had been obtained in the one case in which the operation had been performed, but that fact did not prove that success would attend all other operations of like character. He thought, however, that sufficient information had been gained to enable him to say that in certain well-defined cases of incurable intra-capsular fracture of the neck of the femur, excision was a justifiable operation.

The paper being before the Academy,

Dr. L. Weber remarked that, without personal experience, he was inclined to adopt the views of Dr. Howe; that is to say, if, in any given case, proper methods of surgical treatment had been employed for a reasonable length of time, the surgeon should neither fear nor hesitate to perform the operation; and, if performed early, certainly better results would be obtained than when delayed until the muscles have become atrophied and structures of other joints more or less involved.

Dr. Thos. Sabine remarked that he was not exactly able to see the indication for the operation proposed by Dr. Howe. In cases of non-union after intra-capsular fracture of the neck of the femur, the head of the bone undergoes one of two changes: either it becomes absorbed, or it becomes carious. In the latter case the indication, other means failing, is to operate and remove the diseased portion of bone. Such an operation has already been once performed by Texdor; suppuration followed, and the patient died on the twenty-third day.

In ordinary cases of intra-capsular fracture of the neck of the femur, efforts to secure union must be continued for two or three months, and during that time the fractured ends of the bone become rounded, and he thought it was very unusual for the condition of the parts, at the end of that time, to be such as to permit of crepitus being obtained. He did not see how the patient could be given a more solid limb by the operation than he would have if let alone. If the case reported belonged to the class in which caries and necrosis existed, he had no question but that the operation was justifiable.

Dr. Lewis A. Sayre remarked that he had had no experience in exsection of the hip-joint in cases of simple fracture, although he had removed the head of the femur seventy-three times in cases of morbus coxarius. Texdor's operation, which Dr. S. P. Batchelder of this city had done previously, he did not regard as proper exsection, for in his case as well as in Batchelder's there was simply dilatation of the fistula and removal of the loose head of the bone.

His own experience had been that, with proper treatment, union in cases of intra-capsular fracture was tolerably fair. As for treatment where union did not occur, it seemed to him that if it was evident the source of irritation was to be permanent, even though there were no sinuses or suppuration, the operation for the removal of the source of irritation was justifiable. The principle was the same as that involved in performing lumbo-colotomy for an incurable disease. He favored an early operation; the earlier the better when it was decided that the patient was hopelessly incurable so far as the fracture was concerned, for anchylosis of other joints would take place from simple disease without inflammatory action.

Dr. A. C. Post remarked that there was no reason to doubt that Dr. Howe's patient was benefited by the operation. In the course of his remarks, however, he (Dr. H.) said that he did not see why the limb could not be made as useful as when the head of the bone was excised under other circumstances. In the great majority of cases of exsection performed for morbus coxarius, it must be borne in mind the patients were in childhood or early adolescence. It certainly made a great difference in the probable result, whether such an operation was performed on a patient ten or fifteen years of age or on one sixty or seventy years of age. We should hardly expect as good results in old age as in childhood. Then, with regard to the danger of the operation, the results, so far as preservation of life was concerned, were much more satisfactory in patients under fifteen years of age than in older patients. The operation was not a very safe one in adults, especially in the latter period of adult life. He had no doubt, however, that in a case similar to that reported, the operation would be justifiable.

Dr. White, U.S.A., on invitation, spoke and referred to two cases of intra-capsular fracture; in one ligamentous union occurred, and in the other—a gunshot fracture—caries resulted; the head of the bone was removed by operation, also portions of the bones of the pelvis. He thought that when sufficient time had elapsed, under proper treatment, after such fracture, and union did not occur, recourse should be had to operative measures.

Dr. Howe remarked, in closing the discussion, that excision for caries and necrosis was common, but in his case there was neither caries nor necrosis, but it was simply an old case of intra-capsular fracture in which crepitus was present months after the injury. The point in the case was that, instead of waiting for evidence of caries and necrosis, the operation should be performed. He thought that no case had been previously reported in which bony crepitus existed and the operation had been performed for removal of the head of the bone in intra-capsular fracture. With reference to Dr. Sabine's statement that such cases were not common, that might be true with reference to private practice, but certainly in Charity Hospital, and especially in the Alms-House, a large number could be found.

With regard to Dr. Post's remark concerning mortality of the operation in patients advanced in life—he thought it was not so bad as was supposed. Besides, if it was great in adults, it could not be argued from that that the same unfavorable results would follow in this class of cases; for their general condition must be good in order to permit the operation, whereas the reverse was true in morbus coxarius—the operation was performed to improve the general condition.

After adopting a resolution that the By-Laws of the Academy be suspended for the next meeting, and that the Academy meet at 7.30 P.M. instead of 8 P.M., the Academy adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 22, 1879.

Dr. E. L. Keyes, President, in the Chair.

(Concluded from page 530).

Dr. Mary P. Jacobi presented a specimen case of

GENERALIZED TUBERCULOSIS.

The patient was a boy of 19 months; was brought to the dispensary of Mt. Sinai Hospital, Sept. 22d. Had been ailing ever since attack of measles in August; lost flesh; skin became yellowish, and there was a slight cough. Examination found slight dulness and harsh respiration at the apex of the left lung, heard most distinctly in front. The abdomen was somewhat tympanitic, but there was no diarrhœa. No enlargement of spleen could be detected at this time. The tongue was clean. The child cried a great deal, and constantly wanted to eat, but showed no unusual thirst; yet the temperature was 103¼°.

It was evident that the pulmonary congestion and induration constituted only one element of a more general disease, and the diagnosis hesitated between typhoid and miliary tuberculosis. On the 24th of September the spleen was found enlarged, but the harshness of respiration was much diminished. Temperature was 102¾°. Until the 8th of October the condition remained the same. The fever was always present in the afternoon, but, according to the mother, absent in the morning. On the 8th of October, however, for the first time, fever persisted all day long. On the 9th the child vomited, and its head became very hot. On the 10th the child had become drowsy and apathetic; lay passively on the mother's lap, with the head retracted and some rigidity of the neck. The face was pale and the head cool. The rectal temperature, hitherto elevated, was only 100.5°. The pupils were normal, but the respiration was of the Cheyne-Stokes' type. Total number of respirations in a minute, 26; pulse 104°, hard, and occasionally reduplicated. The respiration was harsh in various parts of the lungs. From time to time were heard puffs of prolonged expiration. The abdomen was beginning to retract.

No doubt could longer exist of the correctness of the diagnosis of general miliary tuberculosis, with commencing meningitis. On the 11th of October the pulse was very irregular; respiration regular—40 a minute; pupils dilated; child unconscious; T. 105°. On the 13th subcrepitant râles were heard all over both lungs, indicating commencing softening; pupils contracted; slight convulsions. Oct. 14th—Occasional rigidity of limbs and of neck; T. 99¾° in rectum. This evening had complete convulsion, and next morning right arm was completely paralyzed. Death on the 16th, at 11 P.M.

Autopsy on the 12th, at 3 P.M.: *Brain.*—Adhesions of dura mater to skull and of its internal surface to various parts of the visceral arachnoid; half a pint of serosity escaped during removal. Entire brain found highly œdematous, and surface of convolutions pale. Omit details of the convexity. At base, typical meningitis at an early stage. Pia thickened and infiltrated over interpeduncular space; also along Sylvian fissures, where it was adherent; also over base of cere-

bellum. No tubercles larger than pins' heads were discernible on the surface of the pia. Microscopic examination showed the pia blood-vessels of various sizes, surrounded by cords of tubercular infiltration in the lymphatic sheaths; successive cords forming a series of beads along the vessel. The opacities of the pia were caused by diffused infiltrations of cells similar to those composing the tubercular masses on the vessels. In the tip of the left temporal lobe, occupying the most anterior part of the middle temporal convolution, was a softened patch the size of a walnut; and in the anterior part of this was a cavity the size of a filbert. The cavity evidently represented an abscess from which the contents had escaped during the removal of the brain.

The lungs were completely studded with tubercles, nearly all in caseous degeneration. A rather large, cheesy mass, surrounded by a zone of red induration, occupied the apex of the left lung. The bronchial glands were enlarged and caseous. The spleen was enlarged and also studded with tubercle. The kidneys were congested, not tuberculous. The intestine was healthy.

The case presented several points of interest: And first, in regard to the diagnosis previous to the occurrence of cerebral symptoms. The diagnosis of general tuberculosis at such stage is confessedly difficult, although of course not impossible. The enlargement of the spleen from tubercular infiltration most closely simulates that from typhoid congestion. The extension of tubercle to the intestine would, inducing diarrhœa and tympanitis, have added other difficulties to the diagnosis than such as really existed in this case. The diagnosis was, however, made before the occurrence of cerebral symptoms; and of course, after the appearance of these, became perfectly plain.

The second point of interest concerned the original focus of the tubercular infection. Evidently a broncho-pneumonia had persisted after measles, and had been the primary origin of the tuberculosis. The question arose: Were tubercles in the lungs first formed by degeneration of cells infiltrating the peribronchial lymphatic sheaths; and did the bronchial glands become infected by lymphatic absorption from these disseminated tubercles, and then themselves constitute foci for the infection of the brain and spleen? Or, had the bronchial glands degenerated during the broncho-pneumonia, so that the tubercular infection of the lungs was secondary, like that of the other organs? It seemed probable that the first hypothesis was the correct one. Klein's researches on artificial tuberculosis showed the manner in which pulmonary tubercle was formed in the lymph-spaces around the bronchial tubes, thus differing essentially from the tubercles of the brain, where the infiltration surrounded the blood-vessels. In the first case, the irritament exciting the proliferation of the lymph-elements passes directly into the lymph-channels in the septa of the alveoli. In the second, it circulates in the blood-vessel, and is separated by its wall from the lymph-space. The ultimate result is the same, though the tubercles of the pia have not the time to develop to an advanced stage of caseation before exciting a fatal meningitis. Hence, apparently, the reason that tubercular meningitis is always basilar; the local effect of the irritament is felt from the moment the blood carrying it reaches the vessels of the brain enclosed in their lymphatic sheaths.

The third point of interest was in relation to the abscess, taken in connection with the paralysis on the opposite side of the body. On the one hand there were numerous cases on record where abscess or tumor of this region was followed by no paralysis. On the other hand, there is a band of fibres known as the stria cornea, which passes into the head of the corpus striatum from the tip of the temporal lobe, and which is reckoned by Meynert as one of the four parts making up the motor tract. The question suggests itself, whether under certain circumstances the complete destruction of the origin of this band of fibres would not suffice to cause incomplete hemiplegia.

Certain it is, that the abscess in question was the only definite destructive lesion existing in the brain.

EXSECTION OF THE ELBOW.

Dr. L. A. Stimson presented two specimens of exsection of the elbow. The first was removed from a lad aged eighteen years, who, when nine years of age, had an attack of scarlet fever followed by arthritis, abscess on the inner side of elbow communicating with the joint, and finally anchylosis. During the nine years following, he had frequent attacks of pain, and for their relief he eventually came to the hospital. The arm proper was atrophied, the elbow was slightly swollen, there was some lateral motion and slight crepitus. The joint was excised by the latero-posterior incision. The capsule of the joint was filled with slightly altered synovia, and the articular cartilages were destroyed in part. The coronoid process had increased in length nearly an inch, so as to block the movements of the joint entirely. The result was quite satisfactory, there being good antero-posterior motion in the joint, and little, if any, lateral motion.

The second specimen was removed by the same kind of incision, from a stout negro, a patient of Bellevue Hospital, who had been attacked with pain in the elbow five years ago, leaving the joint stiff and useless thereafter. The elbow was fixed at a right angle, was entirely useless, and there was slight lateral motion with distinct crepitus. The operation was performed on the 25th of September last. The capsule was found so thickened that the cavity of the joint was obliterated. The ulna was very much overgrown, as was also the external condyle of humerus. Three and a half weeks after the operation there was no lateral motion; there was quite free flexion and extension, and the joint was capable of sustaining a weight of ten or twelve pounds.

Dr. Stimson remarked that the patient upon whom he had performed exsection of the elbow last June, and whose case was at that time presented to the Society, was able to use her arm as if nothing had happened.

There was very slight lateral motion, but not enough to create any uncertainty.

A Christian Medical Union.—At an adjourned meeting of medical men and students, held in the parlor of the Y. M. C. A. Hall, Fifteenth and Chestnut Streets, Philadelphia, on Wednesday evening, December 3d, it was resolved to organize an association to be known as the Medical Christian Association of Philadelphia, which shall meet annually on the first Wednesday evening in January. The committee on organization recommended the appointment of a committee of medical men to act in co-operation with the Devotional Committee of the Y. M. C. A. in organizing and carrying on such plans of work as will reach the medical students in the city and improve the condition and morals of all such by surrounding them with Christian influences.

Correspondence.

DIPHTHERIA AND BENZOATE OF SODA.

To the Editor of the Medical Record.

Dear Sir:—In yours of November 29th, reference is made to a communication from the minister of Russia, Mr. Shishkin, in which the benzoate of soda is recommended to the American public, through the *New York Herald*, as a remedy for diphtheria. You justly remark that "no reliable discovery in medicine remains long without being published throughout the whole medical world." While the benevolent spirit which characterizes our representatives abroad in calling the attention of our people to new discoveries in medicine is most praiseworthy, such efforts usually result, alas! only in arousing hopes which end in disappointment. Thus, cundurango appeared with blatant claims as a specific for cancer, but now it is almost forgotten; and erythoxylon coca, while possessing some merits, does not seem to produce in the United States the beneficial effects which are said to follow its use in Peru. The laity do not seem to understand that all, or nearly all new remedies, which possess decided merits, are the subject of careful experiment, and are finally placed upon the list of permanent remedial agents.

With regard to the benzoate of soda, a notice appeared in the *American Journal of Medical Sciences* for January, 1878, giving an abstract of the results of experiments performed by Mr. J. Graham Brown, Senior President Royal Medical Society, Edinburgh, in Prof. Klebs's laboratory. He was endeavoring to ascertain what drugs seemed to have an influence over the diphtheritic process. His conclusions were believed to indicate:

"1. That the contagious fluids of diphtheria are rendered powerless to propagate the local disease after mixture for a longer or shorter time with solutions of hydrochlorate of quinia, salicylate of soda, and benzoate of soda.

"2. That the most powerful of these three is benzoate of soda.

"3. That the administration of benzoate of soda hypodermically, previous to the inoculation of diphtheria, has a power of preventing the establishment of the disease; but that this protection only extends to a certain length.

"Mr. Brown very properly remarks that it would be very rash to suppose that any one of these points has been firmly established by the amount of evidence which is contained in this research. There are so many sources of error ever present, as to preclude such a possibility. Still, however, the *uniformity of the results* obtained is so striking as to increase greatly their value."

At the time of the appearance of the above article, I had a case of severe diphtheria under my care, and used the following as a gargle. ℞. Acid benzoic., ʒ i.; sodæ bicarb., ʒ i.; glycerin., ʒ i.; aquæ, ʒ iij. M. My note-book states that the membrane was loosening on the following day, but does not refer to any special action of the gargle. The case terminated fatally, nasal hæmorrhage and vomiting of a thin, dark fluid having ultimately set in.

Benzoic acid, closely allied to benzoate of soda, was the subject of experiments made by John Dougall, of Glasgow, to determine the "relative powers of various substances in preventing the generation of animalculæ or the development of their germs, with special reference to the germ theory of putrefaction."* The preventive properties of sixty-seven substances, such as carbolic acid, sulphate of copper, and nitrate of ammonium, were tested by mixing solutions of them respectively with a filtered solution of hay, a certain quantity of urine, and a mixture of beef-juice and egg-albumen. The three mixtures were made in definite proportions, set aside for a certain time and examined microscopically. Where motion or life was perceived, the substances were added in larger proportion or conversely, and "the process repeated till a point was gained where none or only the faintest movement was perceptible." Then the strength of the solution was ascertained and its preventive power noted." To secure exactness, the experiments were afterward repeated. It was decided that "amongst the organic acids the 'benzoic' is first in average, though third in the albumen column. This substance, it appears, has not received the attention it merits. No doubt gum benzoin has long been used in the preparation of fumigating pastilles to overcome unpleasant odors, but the general impression is that these are merely masked, not destroyed The results of the experiments, however, indicate something more than this; because, although the albuminoid preventive point of picric acid is much higher than that of 'benzoic,' and though that of carbolic acid equals it, still it has an average greater than the former, and double that of the latter. Its mode of action is not clear; probably it is assisted by the small quantity of empyreumatic oil always present in its commercial crystals."

No doubt benzoate of soda has been employed in this country against diphtheria. The prominence given to it by your journal will develop new facts with regard to its antizymotic properties.

Respectfully,

F. A. Burrall, M.D.

48 West Seventeenth Street.

"STATE MEDICINE."

To the Editor of The Medical Record.

Sir—If your Washington correspondent, Dr. Reyburn, will read my essay with sufficient care, he will find that, while the adoption of the principles there advocated may serve to curtail the display of a certain amount of superfluous official energy, they will, nevertheless, confer upon sanitary authorities all the power which is needful for the proper management of disease in its relations to public health. No one denies the right of the State to guard the equal rights of all its citizens. If we then admit, for the sake of argument, that the domestic epidemic diseases are injurious to the community, there can be no doubt that the authority of the government should be exercised to keep people from spreading infection through the highways and public places which are intrusted to the care of the central power. But, beyond this, that authority cannot proceed without flagrant injustice. It cannot enter the home of a citizen, and command him to order it thus and so, without unjustly abridging his right to use his property as he pleases within his own private sphere. To use the comparison employed by the doctor, the police authority has a right to prevent a man from making a bonfire of his house, because he would endanger the safety of other houses;

* London: J. & A. Churchill, New Burlington Street. MDCCCLXXI.

but no power has any right to prevent that man from burning his house piecemeal in his stove, if poverty or his peculiar whims incline him to make such an end of his property. In like manner, the government cannot justly interfere with the legitimate business of a citizen, for the sake of preventing the spread of disease, unless it makes compensation for all direct losses which may be thus occasioned; for it is a well established principle of social science that the State cannot, without injustice, take from the citizen more than it returns to him. When, therefore, a sanitary official destroys the business and the income of a family for the sake of other citizens who have no claim upon them, and makes no compensation for the loss, he is guilty of the grossest injustice.

Such are some of the reasons which make it wrong for sanitary authorities to cross the line which separates the private life of the citizen from his public relations. Many others suggest themselves to the thoughtful mind, but I will not unduly occupy your space by their recital. As for the measures of compulsion which may be justly employed by the State within its legitimate sphere, the relations which exist between the public life and the private life of citizens are so numerous and so delicate that it is seldom expedient for the State to intervene in the management of domestic epidemics. The reasons of this are founded upon experience, and have their origin in the constitution of human nature. Experience shows that when the central authority has provided means for the preservation of order and the maintenance of justice, the unimpeded energies of the individual units of society will secure for themselves all that is attainable by the community. But when a government undertakes to "stamp out evil"—whether moral or physical, it matters not—it invariably fails to accomplish its purpose; or, if it seems for a time to be successful, its success is purchased by the creation of evils which are often worse than those which were destroyed. Witness the experience of France when she eradicated Protestantism, and by the same act well nigh destroyed the industries and the moral sense of the nation. Witness the outcome of all attempts to destroy foreign trade by prohibiting duties, impoverishing the nation and creating an irrepressible system of smuggling. Witness the ruin of a flourishing export trade in live cattle, through the folly of a single ignorant health officer at the Chicago stock-yards. Witness the utter failure of the attempt to suppress scarlet fever by the enforcement of methods against which the British Medical Association has entered its deliberate protest—methods which actually set a premium on the concealment and unsuspected propagation of disease. Free trade in religion, in merchandise, and in health, will always yield the highest results that are conceivable. The accuracy of the parallel—Dr. Reyburn to the contrary notwithstanding—between the relations of the State to the religious welfare of its citizens and its relations to their bodily health has not escaped the notice of philosophers. It is Herbert Spencer who declares (Social Statics, p. 108) that "there is a manifest analogy between committing to government guardianship the physical health of the people, and committing to it their moral health. The two proceedings are equally reasonable, may be defended by similar arguments, and must stand or fall together. If the welfare of men's souls can be fitly dealt with by acts of parliament, why then the welfare of their bodies can be fitly dealt with likewise. He who thinks the State commissioned to administer spiritual remedies, may consistently think that it should administer material ones. The disinfecting of society from vice may naturally be quoted as a precedent for disinfecting it from pestilence. Purifying the hearts of men from noxious vapors may be held quite as legitimate as purifying their moral atmosphere. The fear that false doctrines may be instilled by unauthorized preachers, has its analogue in the fear that unauthorized practitioners may give deleterious medicines or advice. And the persecutions once committed to prevent the one evil countenance the penalties used to put down the other. Contrariwise, the arguments employed by the dissenter to show that the moral sanity of the people is not a matter for state superintendence, are applicable, with a slight change of terms, to their physical sanity also." It was once thought wise and proper for the State to compel uniformity of belief in matters of religion. But the result was rebellion, secession, hatred of religion. The same result will follow similar compulsory efforts in behalf of health on the part of sanitary officials. If they will limit their functions in accordance with the principles advocated in my previous essay, there need be no doubt "that intelligent citizens, as a class, (will) submit to reasonable regulations, and even restrictions for the sake of the common good." But if these officials, as a class, go on as some of them have commenced, it will not be very long before there will be evolved among "intelligent citizens" a feeling towards sanitary administration which will need but little to ripen into something closely akin to contempt.

HENRY M. LYMAN.

CHICAGO, ILLS., Nov. 28, 1879.

PROPRIETARY AND TRADE-MARKED ARTICLES, OR NOSTRUMS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: "Pharmacopœia" is infinitely obliged to Julius Fehr for his strictures about patented and trade-marked articles. I was always under the impression that Chlorodyne, Winslow's Soothing Syrup, Tamar Indien, and Grains de Santé were patented as far as the English, French, and American laws permitted. A trade-mark is a partial patent at least, and often a very complete one as far as the results go. But leaving this quibble on his part, I will proceed to the more important and serious side of the question. All these articles are proprietary, and hence nostrums, for nostrum is derived from *noster*, ours, and merely means personal possession to the exclusion of others. The rules of the American Medical Association, of the State Medical Society, and of all New York County Medical Societies, discourage the use of these more or less secret and exclusive remedies, and absolutely forbid regular and honorable physicians from giving certificates for them. A *nostrum* is not necessarily a secret or quack medicine, although it generally is; but it is always a proprietary article, and often a partially patented or trade-marked substance, and occasionally a completely patented one. The publication of the formula does not relieve it from its proprietary or nostral character, for this is merely the specification of the contents. The mode of combination is generally, if not always, kept secret, and there is always some mystery or secrecy about the matter. I even hold that a certificate by physicians for a patented rubber-cushioned axle is out of order. For all these certificates, although given originally for publication in medical journals only, are always or nearly always reproduced in secular journals and even newspapers, and in handbills and circulars to lay persons, which

are often sent about in the mails, and even thrown broadcast into door- and cellar-ways, to the infinite degradation of the medical profession.

A patent, according to Webster, is merely a writing given by the proper authority and duly authenticated, granting a privilege to some person or persons. Patent comes from *pateo* to open, and letters-patent are merely those which are open to the perusal of all, but conferring franchises, etc.

PHARMACOPŒIA.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 30th to December 6th, 1879.

BROWN, H. E., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Middleton, to report to the Comd'g Officer, Ft. Duncan, Texas, as Post Surgeon. S. O. 252, C. S., Dept. of Texas.

TAYLOR, M. K., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to go beyond limits of the Department, and apply for an extension of one month. S. O. 251, Dept. of Texas, Nov. 28, 1879.

CLEARY, P. J. A., Capt. and Asst. Surgeon. To report in person to the Comd'g General, Dept. of the East, for assignment to duty. S. O. 271, A. G. O., Dec. 2, 1879.

MIDDLETON, P., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Post of San Antonio, Tex., and to relieve Asst. Surgeon M. K. Taylor, as attending Surgeon at Dept. Hdqrs. S. O. 252, Dept. of Texas, Nov. 29, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. To accompany troops ordered from Rawlins to Ft. Laramie, Wyo. T., and there take post. S. O. 109, Dept. of the Platte, Nov. 29, 1879.

ELBREY, F. W., Capt. and Asst. Surgeon. Assigned to duty at Ft. Bayard, N. Mex. S. O. 238, Dept. of the Missouri, Nov. 28, 1879.

HOFF, J. V. R., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 270, A. G. O., Dec. 1, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Brown, to report as Post Surgeon to the Comd'g Officer, Post of San Diego, Texas. S. O. 252, C. S., Dept. of Texas.

APPEL, D. M., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 241, Dept. of the Missouri, Dec. 2, 1879.

SMITH, R. E., 1st Lieut. and Asst. Surgeon. His resignation accepted by the President, to take effect April 1st, 1880. S. O. 271, C. S., A. G. O.

QUARANTINE AT NEW ORLEANS.—A meeting of the Citizens' Auxiliary Sanitary Association was held at New Orleans, December 1st. The object of the meeting was to forward the project of establishing a central quarantine station at New Orleans, under the control of the National Board of Health. As the establishment of such a station was opposed by the State Board of Health, that body was only represented at the meeting by one member. A resolution was passed recommending the proposed plan of a quarantine station on Ship Island.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 6, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 29, 1879...	0	4	56	3	96	62	0	0
Dec. 6, 1879....	0	8	48	1	122	51	0	0

THE LONDON LANCET AND THE CONTROVERSY ON SPASMODIC STRICTURE.—In a recent number of the *Lancet* (Oct. 18th) is a notice of the discussion between Drs. Otis and Sands concerning spasmodic stricture of the urethra. The editor of the *Lancet*, in the course of his remarks, takes occasion to throw out the insinuation that the statements of Dr. Otis are unreliable. We are much surprised at this, as the gentleman in question is considered at home to be thoroughly trustworthy. Dr. Sands has come to the rescue in a timely and effective note, which appears in the last issue (Nov. 22d), and which explains the reasons for the apparent misapprehension on the part of the *Lancet*. This, coming as it does from the other party in the controversy, is in exceedingly good taste, and relieves Dr. Otis from any possible imputation as conveyed in the columns of that journal. It would have been more in keeping with the British ideas of justice for the editor of the *Lancet* to have followed the example of Dr. Sands in this matter.

THE CLIMATE OF TEXAS.—Dr. D. B. Messinger, of Wilson Co., Texas, writes: "After a residence of seven years in West Texas, I find it remarkably beneficial to chronic invalids coming here from other States. This is accounted for by the mildness of the climate, the dryness and purity of the atmosphere, and the extraordinary number of pleasant days during the year, enabling one to have out-door exercise or recreation almost uninterruptedly. For the benefit of those who may not have the time or strength to look up the most salubrious points, I will suggest the centre of the Oak Openings or timber belt, about forty miles below the mountain region and Wilson County, combines advantages not found elsewhere, having plenty of game for the sportsman in its forest and fish in its rivers, numerous medicinal springs of tonic and alterative waters, some peculiarly beneficial to consumptives. Chronic invalids are cured or relieved by a winter's sojourn in this salubrious region, which is undoubtedly one of the best in the United States for cases of phthisis, bronchitis, asthma, catarrh, rheumatism, and dyspeptic conditions."

DR. ALEXANDER MACALISTER has recently been elected to the chair of Anatomy and Surgery in the University of Dublin.

TYPHOID FEVER.—Sir Wm. Jenner has recently delivered an address on the "Treatment of Typhoid Fever." The question of the contagiousness of this disease has been thought of so much popular interest, that it has been discussed by Dr. T. Macalister in the November issue of the *Nineteenth Century*.

Professor Erasmus Wilson.—A munificent offer has been made by Mr. Erasmus Wilson to erect for the Margate Sea-bathing Infirmary a new wing, with wards for seventy patients, a tepid swimming bath, and a chapel. The total cost will be over $100,000.

The New Anæsthetic.—M. Paul Bert's gaseous mixture—nitrous oxide and oxygen, under pressure—is now being used in two Paris hospitals. It has been administered in cases lasting over an hour.—*British Medical Journal.*

Medical Students.—There are 5,231 medical students in the twenty-four larger German universities. The number of medical students in the nineteen English medical colleges was, up to October 29th, 898. In the United States there are between sixty and seventy regular schools. The number of students is between eight and nine thousand.

Virginia State Medical Society.—This Society held its Tenth Annual Meeting at Alexandria, Va., November 21st and 22d, Dr. L. S. Joynes, the President, being in the chair. Dr. Oscar Wiley and President Joynes delivered annual addresses.

The question of investigating the mineral waters of the State was discussed, and referred to committees. The project of forming a Medical Aid Society was also favorably discussed, and referred to a committee.

The following officers were elected for the ensuing year: President, Dr. Henry Latham, of Lynchburg; Six Vice-Presidents: Drs. W. H. Bramlett, R. C. Powell, G. K. Robinson, W. P. McGuire, W. W. Daughtry, C. C. Conway. Treasurer, Dr. L. B. Edwards. Secretary, Dr. Charles S. Britton. *Southern Clinic.*

St. John's Guild.—At the recent meeting of the Board of Trustees of this Guild, Rev. John W. Kramer, D.D., was elected Master.

Directory for Nurses.—A Directory for nurses has recently been opened in the Medical Library Building at Boston. It is under the management of three experienced ladies and two active physicians. It is intended to have here a full registry of the names and residences of nurses, with a statement of their engagements, and especial qualifications. Applications from the country by letter or telegram will be attended to. Already sixty or more nurses have registered, and the plan has every prospect of success.—*Bost. Med. and Surg. Journ.*

Massachusetts Health Board.—This board has recently sent out a circular letter to all the physicians in the State, requesting replies to a series of questions upon sanitary matters.

A Sanitary Convention and Exhibition.—The Michigan Board of Health has undertaken to get up a sanitary convention and exhibition, and has sent around circulars of invitation to medical men and sanitarians both at home and abroad. The proposed meeting will be in Detroit, Jan. 7, 1880, and will continue for two days. Papers will be read on the following subjects: The "Abattoirs of Cities," "School Hygiene," "Ventilation of Living and Sleeping Rooms," "Cooking Schools," "Plumbing for Dwellings," "Prevention and Limitation of Contagious Diseases," "Inspection of Food," and "Water Supply to the Family." One feature of the convention will be the exhibition of sanitary appliances, or of models, drawings, and photographs thereof, when too bulky for transportation, the Board of Health reserving the right to decline articles deemed unsuitable. These will be examined by competent judges, and certificates of merit awarded. The convention is thus officered: President—Ex-Gov. H. P. Baldwin. Vice-Presidents—the Hon. James Birney, William Brodie, M.D., the Hon. W. L. Webber, Prof. J. M. B. Sill, Mrs. J. J. Bagley, Mrs. Morse Stewart. Secretary—C. C. Yemans, M.D., No. 84 Lafayette Avenue, Detroit.

Honors to Dr. Lewis A. Sayre.—At the annual meeting of the Dutch Society of Natural and Medical Science, held in Amsterdam, November 5, 1879, our countryman, Dr. Lewis A. Sayre, was made an honorary member.

A public *concours* for the position of Lecturer on Gynecology in Rush College, Chicago, is to be held on the evening of Jan. 6, 1880. Candidates will lecture before the faculty and class on subjects previously assigned them. Applications will be received by the secretary from any part of the country.

The Staff of the Pennsylvania Hospital, Philadelphia.—Dr. Morris Longstreth was elected, at the last meeting of the Board of Managers of the Pennsylvania Hospital, successor to Prof. J. Aitken Meigs, whose death caused a vacancy in the staff of visiting physicians to the hospital. Dr. Longstreth has been pathologist to the hospital for a number of years past.

Obstetrical Practices among the Japanese.—After pretending to reduce an assumed irregular presentation by abdominal manipulations, the medical man makes the patient stand up and put her arms around his neck. He then braces his shoulder against her breast, and presses his knees up between hers, in such a manner that she is firmly supported. While in this position, he practises a lateral massage with his hands, beginning at the seventh cervical vertebra and rubbing downward and forward, snapping his fingers all the time to distract the attention of the woman. Finally, he rubs the nates and hips with the palms of the hands from behind forward, beginning at the sacrum, and repeating the movements from sixty to seventy times. This process is repeated every morning after the fifth month.

It is scarcely necessary to add that the practising accoucheurs in Japan are, as a rule, advanced in age.—*La France Medicale.*

The late Dr. Oliver White bequeathed his library and one thousand dollars to the Presbyterian Hospital of this city, five hundred dollars to the New York Academy of Medicine, and five hundred dollars to the Society for the Relief of Widows and Orphans of Medical Men; and the late Dr. Freeman J. Bumstead also willed his entire medical library to the New York Academy of Medicine.

Dr. Vallet, of Orleans, France, died in that city on the 1st of November, at the age of 85 years. He had been a practising physician for the unusually long period of 61 years. He was formerly chief surgeon of the Hôtel-Dieu of Orleans, and was a corresponding member of the *Académie de Médecine*, and of the *Société de Chirurgie* of Paris.

South East Missouri Medical Society.—This society, at its annual meeting held November 9th and 10th, passed, by unanimous vote, the following resolutions:

Resolved, That the South-east Missouri Medical Association cordially endorses the action of Harvard Medical College, Bellevue Hospital Medical College, Medical Department of Yale College, Medical Depart-

ment of University of Pennsylvania, Georgetown Medical College, and the Chicago Medical College, in their endeavors to elevate the standard of medical education by making a preliminary examination and a three-year course the requisite to graduation.

Resolved, That no member of this Association should receive any student unless said student first pledges himself not to enter any medical college in the United States, except those requiring a preliminary examination and a three-year course of graded instruction.

The Society elected Dr. E. A. Simpson, President, and Dr. A. A. Bondurant, Secretary, for the ensuing year. Its next meeting will be at Commerce, the first Tuesday in May, 1880.

At the close of its regular proceedings, a grand banquet and ball was tendered the visitors by the profession in Cape Girardeau. This was a very successful and happy affair.

Dr. Walton H. Peckham.—Dr. Peckham died at his residence in this city, December 6th. He had for a long time given up the practice of medicine, and had been engaged in business pursuits.

Fire at Bellevue Hospital.—On the night of December 6th, a pavilion ward at Bellevue Hospital caught fire and was burned nearly to the ground. There were twenty-nine patients in the ward, part of them children. The pavilion was of wood, and burned so rapidly that three children were lost in the flames.

The building was known as Ward 31. When first put up it was devoted to cases of erysipelas, bad burns, cancers, etc. It being too near the hospital building for such purpose, another pavilion for these cases was put up, and Ward 31 was devoted to children and women. It was not a suitable structure for a hospital ward, and had already been condemned by the commissioners. A brick building will soon be erected to replace the burnt one.

The Plague in Russia.—The German commission, consisting of Drs. Hirsch and Summerbrodt, sent to Astrachan to study the Russian plague, have returned and made their report. This report gives a history of the disease and of the epidemic as complete as it could be made. Nothing especially new or valuable, however, was brought back, as the commission did not see any cases personally, and had to get information second-hand.

Trained Nurses.—A very instructive address was recently delivered before the Washington Training-School for Nurses, by Dr. Jos. Taber Johnson. A history of the origin of training-schools in this country is given. It shows how slow and hard the work has been to furnish the public with something of which it is in urgent need.

Nurses first received practical instruction in the hospitals of Philadelphia. It was in New York, however, that the first regularly organized school was established with all the necessary arrangements for systematic training. This was at Bellevue Hospital. The second school was opened in Boston, Nov., 1873; the third in New Haven. There are now schools in a number of the large cities. The value of such schools has been thoroughly appreciated, and their success has in most cases been rapid and complete.

The career of a trained nurse opens up a new field for young women. It is a life which has many pleasant features, in spite of the labor and responsibility it exacts. A good trained nurse is now heartily appreciated by the physician, and rarely fails to earn the good-will and gratitude of the patient.

The pay of trained nurses is generally better than that given to the same class of women in any other branch of work. From $10 to $20 a week are the limits generally.

The Training-School for Nurses at Washington seems to have had many difficulties to meet. This was due to the fact that the largest hospital in the city is in the hands of the Catholic Sisters of Charity. Provision has, however, been made for instruction at the Columbia and Freedmen's Hospitals, and it is probable that the school will now become prosperous.

The supply of trained nurses in most places is lamentably small, and it is to be hoped that efforts to increase the number will be successful.

Cholera in Japan.—Dr. D. B. Simmons, of Yokohama, writes: The cholera epidemic which has been raging during the summer from one end of the empire to the other is rapidly abating. In Yokohama there have been but two cases the last ten days. In Tokio the number is also greatly reduced, not more than two or three cases being daily reported. Total number of cases for all Japan, up to Oct. 25, 156,734. Deaths, 90,627.

Rotten Tea.—The *London Times* announces that rotten tea, the refuse of importations of 1871 and 1872, colored with greenish paint, is being sold in London. As no place gets far ahead of New York in the matter of adulterations, we can reasonably expect some of the same among us very soon.

Menthol as an Anti-neuralgic.—Some additional testimony to the value of menthol in sciatica has been sent to the *Lancet*. In three cases all were relieved for a time, and one notably so. The solution used was a weak one (gr. j. to ℥ xx. of rectified spirits).

Dr. Thos. Kennard died at St. Louis, Nov. 9th. He was ex-president of the St. Louis Medical Society, and had long been a prominent man in the profession.

Medical Office in India.—The position of principal medical officer in India, now held by Surgeon-General J. H. H. Innes, C.B., is to be vacated. The successor will probably be Surgeon-General T. Crawford, M.D.

Prison Epidemics.—According to the *Louisville Medical News*, 289 prisoners in the penitentiary at Frankfort are down with the diarrhœa. A communication between the drains and the water-supply is supposed to have been the cause. The Kentucky Penitentiary is said to be in a very filthy state.

BOOKS RECEIVED.

Dictionary of German Terms Used in Medicine. By George R. Cutter, M.D., Surgeon to New York Eye and Ear Infirmary. New York: G. P. Putnam's Sons. 1879.

Biographical Dictionary of Physicians. By W. B. Atkinson, M.D. Second edition. Philadelphia: Robson. 1879.

Transactions of Mississippi State Medical Association. Vol. xii. 1879.

Transactions of Medical Society of New Jersey. 1879.

Transactions of Medical Society of State of Pennsylvania. Vol. xii. Part ii. 1879.

American Health Primers. The Mouth and the Teeth. By J. W. White, M.D., D.D.S. Philadelphia: Lindsay & Blakiston. 1879.

Original Lectures.

CLINICAL LECTURE ON

DEMENTIA, IDIOCY, IMBECILITY;

BEING THE THIRD OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY,

DELIVERED AT THE NEW YORK CITY ASYLUM FOR THE INSANE, WARD'S ISLAND.

BY A. E. MACDONALD, M.D.,

MEDICAL SUPERINTENDENT.

GENTLEMEN: The mental conditions which we are to study today differ essentially from those which have engaged our attention at our former meetings. Then we were confronted by minds which had lost none of their normal activity, which were, if anything, more than normally active, and which found their difference from ordinary sane minds in the abnormal manners and channels in which their activity was manifested. The common phrase by which an insane person's condition is expressed—that he has "lost his mind"—could not, with propriety, therefore, be applied to the victim of either mania or melancholia; for there is disturbance, not loss. But, as applied to the sufferer from dementia, and only when so applied, the term is a proper one. As regards imbecility and idiocy, they have this in common with dementia, that in each of the three conditions there is deficiency of mind; but in their case the deficiency is an original one, while in dementia it is acquired. Hence, it is customary to group them under the designation "amentia," so marking the essential point of distinction between them and dementia.

Dementia, then, to begin with, is that form of insanity in which we find not merely distortion or misdirection of mind, but actual deprivation of it. In the patients before you, you see a very different condition of affairs, both mentally and physically, from that which marked those who occupied their seats at either of your previous visits. You find a dull, stolid, heavy countenance, a fixed attitude, and an utter failure to respond to external influences, or to indicate in any way that the patient is conscious of his surroundings. Before—in the one instance, as part of the general excitement; in the other, from fear or suspicion as to their possible bearing upon them—the patients manifested a lively and anxious interest in our movements and our words. Now the eyes and the ears of our patients seem to take cognizance of neither the one nor the other.

Of dementia, as of the other forms of insanity which we have already considered, different divisions are made by different authors and teachers. Some speak of the disease as either acute or chronic, while others recognize primary and secondary dementia as constituting its two forms. The first classification I consider undesirable, for, whatever its origin or duration, there is at no time anything *acute* in the symptoms of the disease; and I prefer to adopt, and to recommend to you the adoption of the latter. By secondary dementia we mean that form in which the [illegible] condition in the course of an attack of insanity of one or other of the types which we have already considered, or after apoplexy or epilepsy, or some other nervous disease; or yet, again, in the general decay of the vital powers which attends advancing age. By primary dementia we understand the form in which the insanity possesses the characteristics of dementia from the outset. Of the two, secondary dementia is relatively of very much more frequent occurrence, primary dementia being met with comparatively rarely.

We have already spoken of the approximation of the different forms of insanity, one toward the other, and of the mixed and doubtful cases which occupied the border-line between each; and in the case of mania and melancholia we found that by no means all the patients showed only the typical evidences of one or the other form, but that in many they were so mingled or so alternated that it was sometimes hard to say to just which side the patient belonged. Similarly, in dementia, there is an approach toward its next neighbor, melancholia; and primary dementia and melancholia with stupor, have much in common in their symptoms. In a general way, we may usually differentiate upon the grounds that melancholia with stupor is found in older persons, and that there are emaciation, refusal of food, want of sleep, suicidal tendencies, which are not met with in dementia.

CASE I.—Here is a young man whose disease takes the form of primary dementia, and whose attack commenced at about the average age of patients so attacked—in his twentieth year. The victims of primary dementia are all young, ranging from fifteen years upward, and they are generally of weak constitution—boys and girls who have outgrown their strength, as the saying is. In some instances the attack comes on very suddenly, and then it usually owns a moral cause. Sudden fright is the most common, and the patient is literally frightened out of his wits. From this form recovery is more likely to occur than from that of which we shall presently speak, and from which the patient before you suffers. Girls are, perhaps, more frequently than boys, the victims of the suddenly developed form; and coincident with it, and lasting as long as it continues, there is then suppression of the menstrual function. There seems to be complete prostration and stagnation of the bodily and mental functions; the circulation is depressed, and the extremities cold and congested; there are constipation and retention of urine, and general relaxation of the muscles, so that the patient sits in a listless and stooping position. The mind seems closed to all external impressions, and there is, after recovery, if that takes place, no recollection whatever of what has happened during the continuance of the disease. This period is a perfect blank to the patient, who cannot even judge as to its extent; whereas, after recovery from other forms of insanity, the patients have usually a tolerably clear remembrance of what was said and done in their presence, even at times when they appeared to pay the least attention and to be the least capable of understanding. Refusal of food is common in the cases of which we are speaking—or, I should say, rather neglect of it. The patient will not feed himself, nor even convey the food to his mouth if it is placed upon the table before him; but there is not active resistance to feeding, and if food be placed in the mouth it will be swallowed mechanically.

But, as we have said, primary dementia oftener approaches in a different way, and has different characteristics, as in the case of this boy. Here the approach was gradual; there was a recognizable period of change, and there are two points in the history

which may always be pretty confidently looked for when the approach is thus gradual. These are hereditary predisposition and self-abuse. We have learned regarding him that his father and two sisters have been of unsound mind, and that he was himself a masturbator. This is the common—in fact, the almost invariable history in such cases. The children have been considered uncommonly bright and studious, and it is quite usual for the parents to boast of this fact, and tell how they would spend hours alone over their books; the suggestion that the solitude was perhaps sought for another purpose being always indignantly rejected. And this leads me to speak of masturbation as a factor in the production of insanity, and of the undue importance that has at times been assigned to it. There is a good deal of fashion in this matter of the assigned causes of insanity; sometimes one ostensible cause is taken into favor, sometimes another, and masturbation has had its turn with the rest. Not many years ago it was gravely asserted that a fabulous percentage—75 or 80, I think—of the inmates of asylums owed their insanity to the practice of self-abuse, and this statement went the rounds of the press, and was duly turned to their own account by the venders of certain quack medicines. Such exaggerated claims are not now generally made, but still the efficiency of this particular cause is, in my judgment, greatly overrated by some. Apart from the special form of insanity of which we are now speaking, I doubt if masturbation is to blame for many cases, although we do find patients with other forms practising it. In these cases, however, it is far more likely that the insanity has preceded, and led to the habit, than the reverse. In the present instance, however, and in cases of this class, its potency cannot be doubted, and the existence of the habit, the gradual approach of the disease, and the hereditary taint, combine to mark the case as incurable.

Case II.—Here is a fair type of secondary dementia. He is a man of forty-six, and has been about ten years in asylums. In his case the primary disease took the form of chronic mania, and you see the stiff wiry hair so often associated with that condition still remaining. He is fat and well-nourished, does not speak at all, has a foolish smile, and shows the interest of a child in bright colors and trinkets. This taking on of flesh usually attends the transition to secondary dementia from the more active forms of insanity. The delusions are lost, life becomes mechanical and automatic, and the patient becomes gradually more and more stupid, and passes down through the animal grades until his existence is more like that of a vegetable than anything else.

Case III.—This man is a case of senile dementia. His loss of mind has not followed upon any other form of insanity, but has simply come on gradually as his years have gathered. He is seventy-eight years of age, and you see that he is childish and simple. He prattles away in a silly manner, is sometimes petulant and irascible, but, as a rule, gives very little trouble, and is easily controlled and directed. The prominent feature in these cases is loss of memory, and particularly as regards recent events. Occurrences which were impressed upon the mind in earlier days, when it had not lost its vigor, are remembered and detailed with considerable accuracy; but present happenings seem to make no impression, and are at once forgotten. For example, the senile dement will tell you very correctly some story of his early life, and a few hours afterward he will tell it to you again, equally correctly, but quite forgetting that it is not new to you.

Of course, there is nothing to be done for such cases with any expectation of improvement; the only thing is to make them comfortable for the rest of their days, and this may generally be done at their homes. The physician's connection with them is more apt to be in the capacity of adviser upon the point of their ability to make wills or execute contracts. Then it will be well to remember that the law does not require a man performing such acts to be as strong of mind as he ever was, but only to be strong enough to appreciate the nature and the effect of his acts; and further, that in this, and indeed in all forms of insanity, there is occasionally, just before death, a temporary clearing up of the mind, which takes it back for the time almost to its former vigor.

Case IV.—Among the synonyms for dementia sometimes used, is that of "cataleptoid insanity." Here is a case that illustrates the occasional appropriateness of the term. This man has sat immovable during all the time that I have occupied in introducing the other patients. His head is bent forward, his eyes fixed, his mouth open, with the saliva dribbling from it, and his arms hanging by his sides. When I take hold of his arm and urge him, he rises, and again becomes immovable. As I place my hand on his shoulder and push him, he steps out like a walking doll, and the moment I stop he stops, and there he will stand until he is moved again. Now I raise his arms and bend them in different positions, and they remain just as I place them. I bend one knee and raise his foot from the ground, and he stands steadily upon the other. I press him back into his seat, raise both feet in the air, and in that position he will remain until it is changed for him. This is an excellent example of what has been called the "lay-figure" condition, or the condition of "waxy mobility." Of course, this man does nothing for himself, but has to be attended to and moved about like a machine. Even if food were placed in his mouth, it would remain there unswallowed, and so he has to be fed with the stomach-tube. He has to be taken up and dressed and undressed and put to bed again; and he passes his dejections without heed, if he passes them at all. Often the bowels have to be relieved by injection, and the bladder with the catheter.

We pass now from the dements to the idiots and the imbeciles. Idiocy and imbecility are not properly forms of insanity, certainly not so under the definition which we agreed upon; for *their* difference from the normal condition cannot be determined by comparison of the individual suffering with himself at another time. In their case we are obliged to set up an ideal standard and judge their victims by it, and not by remembering their normal condition. They are, in fact, *in* their normal condition. With dementia they have this in common, that there is in each case want of mind; but in one case the want arises from loss, and in the other from original absence. Differing in this from dementia, they differ between themselves, idiocy being a congenital condition, and imbecility a condition of arrested development, the arrest occurring after birth, and at a longer or shorter interval. I do not mean to say that an idiot or an imbecile may not be insane. His brain may take on diseased action, and he may have an attack of acute mania or of insanity of some other form as well as another. But the existence of his idiocy or his imbecility does not in itself constitute insanity. In other words, he may be of defective mind without being of unsound mind.

The patients before you are not inmates of this Institution, but come from the Idiot Asylum on Randall's Island, by the kind permission of its superintendent, Dr. J. C. Howard. Among them are some idiots and some imbeciles, but in each one you will notice one or more defects in physical development which establish a decided contrast between not alone them and ordinary mortals, but between them and the insane persons who have already appeared before you. Taking the idiots first, you will notice a very decided difference between them—an anatomical one. Some of them have very small heads, some of them very large, and we divide them, therefore, into microcephalic and macrocephalic idiots. As a rule, the large-headed are, more properly speaking, imbeciles, for the brain is not simply undeveloped, but diseased; but this is not always so. The capacity of the skull does not always indicate the size of the brain; and the former may be very great, and the latter very small. In a general way we may say, that the brain of the idiot represents quality without quantity; while of that of the imbecile the reverse is the case. As a rule, the terms which we have used have fairly suggested their own definitions; but in the present instance I fear that this is scarcely the case. For in the original the term idiot meant one who had not sufficient intellect to engage in political affairs or hold political office; and in these later days there is a suspicion that it has somewhat lost its significance in that regard. Ancient tests also have, to some degree, lost their value; for one of those in best repute was, to require the alleged idiot to identify his own father and mother, while more recent authority has declared one-half of that to be difficult even for a wise man.

With these idiots I can do little beyond directing your attention to the physical peculiarities which they present. I know nothing of them myself as to their histories and so forth, and but little is known at the institution from which they come. How little, may be judged from the fact that one of them is known as "Central Park" a name probably not acquired in the usual way from his godfathers and godmothers, but rather from the locality in which he was found; while a second is called "Sloppy," in delicate allusion to a personal characteristic which is sufficiently apparent to you.

Case I.—This is an historical idiot, who has been described and pictured in more than one medical work. At first glance, you would take him for a little boy, but he is in reality about forty years old, and has been on Randall's Island nearly twenty years. You see that he is short and stunted in figure, with disproportionately long limbs, but his remarkably small head is his most striking feature. It is about equal in size to the two fists held together, has a circumference but little over half the average measurement, and is altogether as good a specimen of the microcephalic head as you are likely to see. When you look at it in profile, you see what a decided departure from the usual proportion of the length of the face to that of the entire skull there is. Here the face is of less than ordinary length, but the forehead and the top and back of the skull are so flattened and reduced that it appears to be of unusual length. This disproportion you find in the other cases also, but in less marked degree.

As to this man's parentage we are uninformed, and we are therefore left to conjecture as to the probable cause of his condition. The bones of his skull have the appearance of unusual firmness and thickness, and the sutures are firmly knit. It may be that their premature ossification, and the failure of expansion of the calvarium exerted pressure upon the brain, and so prevented its growth. This is one of the assignable causes of idiocy and imbecility; others are heredity, and especially where there is blood relationship between the parents; intemperance or diseases in the parents (syphilis being particularly operative), and ante-natal impressions—fright to the mother during pregnancy, and the like. In the case of consanguinity of parents, there must, of course, be family defect, which becomes intensified by the breeding-in. That there is danger where no such defect exists is not proven, and not probable; of the potency of ante-natal impressions there is no decisive evidence. Diseases and intemperance of parents are, no doubt, the most usual causes in which they are concerned.

The amount of intellect possessed by this man is almost nil. I believe the repetition of the word "tobacco" forms the extent of his conversational powers. So you will fail to get many mental evidences of his condition. But of physical irregularities there is no lack either in him or in his companions. In almost every feature, one or another of them shows some departure from the usual, and you will observe that in these departures the tendency is toward the form of the lower animals—a point of interest to believers in the Darwinian theory. If we could remove their skull-caps and look at their brains, we should, no doubt, find them approaching that of the ape in organization. The convolutions would be simple and few in number, and those of the two sides symmetrical.

Externally the mouth and lips show unusual conditions, and so with the oral cavity. The lips are large and thick; hare-lip is common; and cleft palate often goes with it. The upper jaw is lengthened and narrowed, the roof of the mouth arched, and the teeth are irregular, deficient, and decayed. Often the incisors are pushed forward and detached from the others—markedly resembling their arrangement upon a separate bone, as in animals.

Defects in the eyes and their appendages are common. This man, as you see, is almost blind, and two of the others have strabismus.

The bodies, as a rule, are ill-developed, Some have club-feet, some hunchback, and so on. Here is a negro whose feet look as if they were formed to clutch the limb of a tree, and it does not require a great stretch of the imagination to picture his ancestors in no very remote generation, jumping or swinging from limb to limb of some African forest.

And with this return, if we may call it so, toward the appearance and form of other animals, there is an equally perceptible return in habit and action. The place of intellect seems to be supplied by instinct, and by it the behavior is apparently often governed. Thus, in a recorded case, an idiot girl having, while alone and unattended, given birth to a child, turned with the instinct of an animal and gnawed the umbilical cord. Commonly, there is a consistent imitation of the habits of some one animal, and its posture and movements will be assumed, and its habits copied even to the extent of showing a preference for whatever forms its natural food. I have read of a case where a woman lived and acted like a sheep, and ate grass; and I know of a case where a young man has all the habits, and a good deal of the appearance, of a well-conducted horse. He harnesses himself to a wagon every morning and trots about all day, switching a tail which he has fabricated out

of old rope; and so great is his consistency that he never fails to shy at sight of a wheelbarrow.

Case II.—Here is an equally good specimen of the opposite condition, the macrocephalic. This boy's head is almost as big as his body, and is at least four times larger than the average. In appearance he is infantile, and in conduct, too; but I learn from the card sent with him that he is eighteen years old. Beyond this, we have no information. His head is so large and heavy that it falls upon his shoulder, unless supported. The sutures are unclosed—indeed widely separated; and there is fluctuation, which shows that the condition is not due entirely, if at all, to abnormal size of brain. The proportions observed in profile between the measurements of the face and skull are the reverse of those found in the last case; the face is now but a small proportion of the entire length.

Case III.—Here is a young man who will give you a good idea of what constitutes an imbecile. There is nothing stunted about him, for he is very tall; but he is awkward and shambling, and acts like an overgrown boy who hasn't learned what to do with his limbs yet. He has that general appearance, too; and when he speaks it is in a shrill treble, though his age is thirty-five. His face is smooth; there is no hair upon the nates; his sexual organs are infantile in size, and the testes are atrophied. He has some intelligence, but not a great deal; and his answers to questions are silly and incoherent. He has hare-lip, as you see, and the condition of the teeth of which I have spoken. When out of doors he runs about like a child; laughs and cries by turns with little or no cause; and he is very fond of chewing grass or leaves, or anything, even earth sometimes, that he can pick up.

Like other imbeciles, he was probably born with as good a brain as other children, and the arrest of development came afterward, and he has remained just what he was mentally when it came. Sometimes imbeciles are born unusually bright children, and go through the first years of life without any suspicion or apprehension of any defect; but finally the stopping-place is reached, and their companions pass them, and thereafter, to whatever age they may attain, they remain mentally undeveloped. Often, by way of compensation, some one talent or aptitude is possessed in an unusual degree. Blind Tom is a familiar instance of this in the case of musical talent, but more commonly mechanical pursuits are those for which the greater fitness is shown. A proper recognition of this fact, instead of obstinate endeavor to push weak-minded children on in studies for which they have not the requisite amount of intellect, would make the lives of many of them more comfortable and useful.

Memphis.—The committee appointed to make a sanitary inspection of Memphis has made its report, concluding it with a number of recommendations. Amongst these is the advice to have all the houses in the city ventilated and chilled; to condemn and destroy a certain number of infected dwellings; to introduce a system of sewerage; to secure the enforcement of building regulations for all future constructions.

The report says that few places have better natural advantages for drainage than Memphis.

The work of inspection was under the direction of a special committee composed of Drs. J. S. Billings and R. W. Mitchell; Mr. W. H. H. Bengaurd, Geo. E. Waring, Jr., and Dr. C. F. Folsom.

A CLINICAL LECTURE

ON A

CASE OF APOPLEXY, WITH A POST-MORTEM EXAMINATION.

Delivered at the Pennsylvania Hospital,

By J. M. Da COSTA, M.D.,

Professor of Medicine and of Clinical Medicine in Jefferson Medical College.

(Reported for The Medical Record.)

Aided by Dr. Morris Longstreth, the pathologist to the hospital, I desire to show you the results of a very interesting and instructive *post-mortem examination*. I had hoped, indeed, to bring before you the man himself, but it was decreed otherwise. He died last night.

The case was one of overwhelming, fresh apoplexy. The patient had only been in the hospital two days. He had the very best and most energetic treatment that we could give him, but it was of no avail. The pressure of the clot upon the brain substance was too great for any human power to prevent or modify.

This is the man's history, so far as it was given to us: J. G., æt. 66, a cabinetmaker by trade, married. His mother had died of apoplexy, but the patient himself had had no previous attack of convulsions and no palsy, and had always been a very temperate man. He had, however, had considerable domestic trouble, and all the time it had been going on he had worked hard at his trade, so as to make both ends meet. The worry and work combined to depress him. This is all that they told us when they carried him into the wards unconscious, and it was, at best, a negative history; for, according to it, he had always enjoyed good health, were it not for an occasional attack of vertigo. Six months before we saw him his wife left him, and since that unfortunate event he has remained hard at work, alone, morose, and despondent, in his shop. On the day before his admission, that is on November 5th, he was found lying on the floor by his stove, which was red-hot. He had evidently struck his hand, which was badly burnt, against it in the act of falling.

When found he was comatose, and his breathing was noisy. His head, face, and neck were deeply congested; his pupils were contracted, and his mouth was drawn toward the right side of his face. There was also left-sided hemiplegia. This was plainly present even when he was found. They brought him into the hospital still insensible, with pupils still contracted and with left-sided paralysis still marked.

The treatment before admission had consisted in the application of wet cups to the left side of the neck. This had so far rallied him that, after he was put to bed in the wards, he raised his right hand to his head and mumbled something about headache. There was considerable cephalic congestion even then existing; the veins of the neck and forehead were prominent and tortuous; the face was dark. The case looked like one of venous congestion. The pupils remained contracted, and responded but slowly to light; there was ptosis of the left eyelid. The mouth was still drawn to the right, and the left arm anæsthetic; at least he did not seem to be sensible to pricking it with a pin. There was complete paralysis of the left arm. (I am now giving you the results of the very careful examination which I myself made when I first saw him.) The left leg could

be very slightly moved. The reflex contractions on both sides were active when the soles of the feet were tickled. The muscles on the left side responded to the faradic current. The pulse was 100; respirations 20 to the minute; temperature 98°. The first sound of the heart was very feeble.

The man remained in this condition; not, however, without active efforts on our part to rouse him. Eight ounces more of blood were taken from his head by leeches, with this end in view, but still there was no change for the better. His temperature gradually rose to 101°, and delirium set in. He began to pick at the bed-clothes. He was thoroughly purged with croton oil, and iodide of potassium was given in large doses. A blister was applied to the nape of his neck, and the fluid extract of digitalis was given hypodermically; but it was all of no avail. It was but too evident to us all that the intra-cranial pressure was too great to be compatible with recovery. The poor fellow died at 9.30 P. M. on November 7th. All that day the resident physician noticed his breath coming shorter and shorter. Delirium was active all the while. Occasionally he moved the paralyzed leg, and the right arm and leg were moved freely.

Here are the specimens, and my friend, Dr. Longstreth, will explain to you the very interesting pathological conditions present.

(Dr. Longstreth:—"You notice here, gentlemen, an enormous fresh clot which has broken into the brain substance at the anterior part and right side of the corpus striatum. The softening, following the formation of the clot, has opened a way into the ventricle and emptied the blood into the anterior horn. All the ventricles, in fact, are filled with bloody serum, and all the vessels are deeply congested. The coloring matter has escaped from the blood and colored the serum.

"Looking carefully at the base of the brain, to determine the cause of the apoplexy, all the vessels—the vertebral, carotids, and interior cerebral arteries—were all found to be atheromatous. I have no doubt that the microscope would show that all the capillaries round the clot had undergone fatty degeneration. (This was subsequently proved to be the case.) There is very marked softening of the brain in the immediate neighborhood of the clot, but there is no absolute change discoverable in distant parts of the brain substance—*i. e.*, the softening is only local, and not general.

"The clot itself reaches from the front part of the corpus striatum, two-thirds of the way back, through the optic thalamus, and follows the course of the upper layer of the fibres of the right crus. The cavity itself, formed by the clot, is probably large enough to hold a hen's egg.

"The *heart* is fatty, and shows atheromatous changes in its valves, mitral and aortic—not enough, however, to interfere with the functions of the organ.

"The *liver* is indurated; the *kidneys* slightly granular, but not otherwise diseased. There is no albumen to be discovered in the urine. The *lungs* are soft and congested. The blood is in a bad condition all over the body. The congestion is most marked on the left depalzied side.")

You have thus heard and seen, gentlemen, all that Dr. Longstreth has to show and tell you. If you will examine the specimens yourselves after the lecture you will see the large clot and the general breaking down of the tissues.

There has been a very striking correspondence between the anatomical lesions and the symptoms manifest during life. It was very evident to us, during life, that we were dealing with a large clot. This was proved to us (1) by the overwhelming character of the stroke; (2) by the completeness of the paralysis; (3) by the very marked and equally persistent contraction of the pupils; and (4) by the want of successful action of the remedies employed; in other words, by the obstinate continuance of the pressure symptoms, in spite of all and any treatment that experience and theory could dictate. It was not hard, I say, to decide that it was a clot with which we were dealing.

Nor, on the other hand, was it beyond our power to decide where the clot had been thrown out. The existence of such complete motor paralysis of the left side of the body pointed indisputably to one of the great motor areas of the brain, presumably to the corpus striatum and to a clot tearing up everything there, and probably extending into the optic thalamus. All these facts of diagnosis were confirmed by the *autopsy* which has just been related to you.

Again, it was not difficult during life, judging from the character of the pulse, the tortuousness of the arteries, and the feeble first sound of the heart, to determine upon the existence of an atheromatous condition of the arteries. This very atheroma of the arteries was undoubtedly the cause of the clot. All these points were nothing else than we had foretold, and so we do not find anything in these *post-mortem* appearances to surprise us.

It is needless for us to examine the symptoms any further, particularly as my time is short; but there are several points of great interest in the case which I wish to discuss with you this morning, viz.: (1) the fact that the leg was not so completely paralyzed as the arm; (2) the depression of the temperature at first and its subsequent rise with its significance; and (3) the question of treatment.

To begin, then, I say that the fact that, while the left arm and leg were both paralyzed, the leg was less paralyzed than the arm, suggests to my mind the discussion as to whether, according to the present state of physiological science, one would not have been led to suspect a lesion of the cortical substance, rather than of the corpus striatum and optic thalamus, as was demonstrated conclusively by the *autopsy* in this case.

It is scarcely necessary to discuss this proposition minutely, namely, given a case of sudden development of hemiplegia in which the arm is more affected than the leg, or *vice versa*, does it, of necessity, prove that the particular motor ganglia supplying that arm or leg are affected, or may it be that the lesion is central, as in the present instance?

Notwithstanding the ingenious and truly scientific studies which have been pursued of late years upon the localization of cerebral functions, we are as yet unable to say with certainty whether or not a lesion, which, like the present, paralyzes an arm more than the leg on the same side, may not after all be (as it has turned out to be here) central rather than cortical.

In this regard these specimens are, without doubt, full of interest, as proving that a central lesion affecting the corpus striatum and optic thalamus may yet give rise to a hemiplegia which implicates the arm much more markedly than the leg, or the reverse, while the light thus far thrown upon the subject would seem to point unquestionably to the cortex as the theoretical seat of the lesion. It all goes to show that the differential diagnosis of lesions implicating the central motor areas is not yet scientifically complete.

As regards the treatment, although you did not see the case during life, you, no doubt, remember that we cupped and leeched the patient, and purged him thoroughly, with but little success. When the heart began to flag, the fluid extract of digitalis was injected hypodermically, without any permanent effect. There was not even so much as a temporary improvement. Even in the case of the digitalis, which elicits a response from the heart in every instance in which the heart is capable of responding, the results were entirely nugatory, and so, I fear, they always will be when the clot thrown out is so extensive. We could not have treated the patient otherwise or with any better effect than we did.

My rule in all cases of apoplexy is to draw blood at once; but when there is marked degeneration of the walls of the arteries, such as we find here, I have never had any striking results from this withdrawal of the pressure upon the brain. On the contrary, where the patient's circulatory system has been weakened from general atheroma, my experience has invariably been that he soon dies, either from exhaustion, or from a fresh breakage of the wall of some artery in the brain.

In concluding my remarks upon this very interesting case, I want to call your attention to the use of digitalis hypodermically for the purpose of sustaining a flagging heart. Two drops of the fluid extract are equivalent in strength to fifteen minims of the tincture. This amount (gtt. ij.), well diluted with water, is what I generally use, and I have always found that it answers all the purposes of hypodermic medication excellently. This dose can, of course, be repeated as often as necessary.

The patient's temperature record was a very significant one. The low temperature during the early part of the attack, and its subsequent rapid rise, indicated the existence of an irritative fever set up in the brain by the presence of the clot.

TARSAL OSTEITIS—EXCISION vs. EVIDEMENT.

By Prof. W. W. DAWSON, M.D.,

OHIO MEDICAL COLLEGE, CINCINNATI, OHIO.

This, gentlemen, is a case of osteitis, but for repair or recovery occupies a very unfavorable position. It involves, as you see, the tarsal region. There has been a well-defined slough of the soft parts leading down directly to the bone, and involves, from its position, I should infer, the scaphoid. The disease seems indeed to be confined to this single bone. It is osteo-periosteo-medullitis, an affection of all the structures of the bone—the external crust, the cancellous portion, and the medullary matter.

When inflammation attacks a spongy bone, it is next to impossible to remove it. Nature seems to have no power to relieve bone of such structure. When, however, it attacks a long bone—a hard bone—the repair is made by an external slough, or by the destruction of the shaft. If the disease is confined to the periphery, a part of the shaft is strangulated and thrown off as a necrotic mass. Repair by granulation occurs beneath. A large portion of the bone may be lost, but it is so reinforced by new material, that the utility of the limb is not destroyed. When the whole bone is involved, and from the intensity of the inflammation it dies, then there is thrown around it a shell—a covering, a kind of shield. The bone may be completely necrosed in the interior, but this new shell is sufficient for the weight of the body, if it be in the tibia or femur; or for prehension, if involving the humerus.

This process of destruction, repair, and compensation occurs, as I have said, in long bones; in solid or flat ones, like those of the cranium; but when osteitis involves the whole substance of a spongy bone, the action is continuously destructive, but not conservative—not tending to the restoration of the part. Inflammatory action progresses; molecular death follows proliferation; the diseased bone and new osseous deposits are thrown off in the shape of necrotic sand-osseous particles; and this process goes on month after month, year after year—an ever-open discharging fistula. This constant purulent discharge from bones leads often to degenerations of the kidneys, ending fatally.

If this should not occur, the patient is rendered more or less disabled by the influence of the ulcer, and must be subjected to the presence of an offensive discharge. The destruction of the kidneys is an evil of high grade—incomparably greater than the disability or the annoyance of an everlasting purulent discharge. Again, in cases of long standing, where the kidneys escape involvement, the system, subjected to a constant drain, grows pale and anæmic, the muscles become flabby, long-continued physical effort becomes impossible.

The disease, when the result of a trauma, is usually confined to the bone or bones originally injured. Fortunately, the osteitis does not extend from contiguity, from mere contact. Synovitis in the tarsus extends from continuity of surface—the synovial membranes are so intimately connected. As a rule, this is not the case when the bone structure is involved. Be careful here to make the distinction between osteitis, the result of an injury, and that arising from a vice in the system, such as syphilis or scrofula. The one is local, confined to the damaged bone; the other constitutional, and generally more than one bone is affected; or, if one alone be affected primarily, the affection will be transferred to others in the neighborhood. A few years ago I had a case which peculiarly illustrated this principle, as well as does the case before you. A bright little girl, the child of wealthy parents, was struck on the side of the foot with some hard body.

Osteitis of the tarsal bones in front of the astragalus followed. It was impossible to dislodge it. Counter-irritation, constitutional remedies, the trephine, and drainage, were all tried, but without result. Great suffering and positive disability attended the case. I then resorted to a radical operation; one that had been recommended by a Scotch surgeon; I removed the affected locality—that is, I disarticulated at the medio-tarsal articulation, and sawed off the metatarsal bones about midway between their upper and lower extremities, then dissecting the tissues from the sole and dorsum of the foot, the whole of the diseased neighborhood was excised and the foot shortened. The metatarsal bones were divided where they are essentially long bones, having a solid shaft traversed by a medullary cavity; these, at this point, have the ability to repair, after having been wounded or divided by the saw; in this instance granulations sprung up, and in a few weeks they, with the soft parts, had completely healed. To provide for the escape of necrotic fragments, I plugged the space left, after removing the mass, with lint, and allowed the restoration to proceed slowly.

She has a good foot—not symmetrical, of course; but it is a useful foot for all purposes. She dances,

runs, plays; and you would not be aware, if you were not told, from the movements of the child, that a surgical operation had been performed; it was a wonderful triumph.

I now present to you a lady with disease both of the scaphoid and also of the tibia. In the first it is osteitis; it has advanced to the stage of ulceration—molecular destruction—but the disease over the tibia involves only its covering that is thickened, enlarged, but has not reached the development of pus. It is a profitable opportunity to see the two forms, or rather the two stages of bone disease. In the scaphoid it has progressed until all the structures of the bone, as in the first case, are involved, and the destructive process still continues in the other locality; the covering of the bone is alone affected. The osteitis in the scaphoid seems to be local, confined to that bone, but the appearance of disease in the tibia leads us to suspect a dyscrasia—a constitutional affection.

Again, the fact stated by her physician, Dr. Albers—the marked influence of iodide of potassium over the affection—goes far to make the suspicion a certainty, that the disease may be specific. This fact excludes this person from the advantages to be derived from excision; that operation being alone suited to cases of traumatic osteitis, to an essentially local affection, to a disease with positive limits.

In the two cases associated—the child that had been operated on, and the female first presented—the local nature of the disease was without doubt. In the adult but one bone has been invaded, and in the child it was definite that the affection did not involve the bones behind the medio-tarsal articulation; there was in neither, constitutional or general implication of the system; hence, in the little girl, when the invaded section was excised, all trace of disability disappeared, and when the degenerated scaphoid is removed from this lady's foot she may expect a like result.

Some years ago Sedillot suggested the plan of *évidement*—the scooping-out of the interior of soft bones in cases of osteitis. He endeavored to leave the solid, thin exterior of the bone, with its periosteum, hoping for a reconstruction of the destroyed, broken-down bone. The osteogenetic process in the foot is slow and often unsatisfactory; in most instances I prefer excision.

For the relief of the second patient, surgery is almost impotent. The disease of the scaphoid is doubtless shared by the bones in its neighborhood, and we have already seen that the periosteum of the tibia is implicated; this will soon be transferred to the bone which it covers. Operative surgery, except to remove the débris—the products of inflammatory action in the shape of sloughs, or necrotic masses—is "meddlesome surgery;" it adds new life and gives activity to the disease which is slowly advancing.

There is, however, one remedy which exercises a marked influence over this form of bone disease. I allude to iodide of potassium. The drug, when given in from thirty to one hundred grain doses, three times a day, will be followed by striking results.

Measles in New York.—Cases of measles have been increasing in frequency in this city during the past few weeks. From November 29th to December 6th, there were 126 cases reported; in the following week there were 171 cases. The disease prevails especially in the middle and western part of the city, and in some localities is quite malignant. In the week ending December 13th, there were twelve deaths reported.

Original Communications.

A CASE OF SUPPURATIVE PERITONITIS FOLLOWING PELVIC PERITONITIS.*

By H. T. HANKS, M.D.,

New York.

On the 29th of July, 1879, I was requested by Col. M——, of Vermont, to see his daughter, a schoolgirl of fifteen years, who had been ill and confined to her bed since the early part of the previous April—nearly four months. From my friend, the colonel, I learned that his daughter had been under the care of Dr. M——, the village physician; that she was taken sick with symptoms, as the physician and the father supposed, of peritonitis. The disease, apparently, seemed to progress, until the whole abdomen was involved, and had so remained for several weeks. Then the swelling subsided, the pain diminished sufficiently to enable the patient to bear some slight pressure upon the abdomen. Her desire for food increased, her mind became clear, and both the physician and the colonel believed the crisis passed and convalescence begun. The father, who was exceedingly intelligent, watched his beloved daughter with untiring devotion. He noticed, after a short time, that the girl's lower limbs remained partially flexed, and that she was growing thinner and paler, notwithstanding the fact that food and stimulants were freely taken. A council of the neighboring physicians was called in May. In June, no improvement having taken place, Prof. C. and Dr. ——, of Burlington, Vt., were summoned. The plan of treatment decided upon at these several consultations had been carefully carried out, but without favorable result. I should say here that I learned at this time that the daughter had been a constant attendant at school, an earnest, diligent student, and had led her class, which was large, and many of whom were very bright pupils. Also, that just before her illness, the family had moved into their new house, hardly dry from fresh plaster and recent paint, and that this circumstance might have been unfavorable at first.

The colonel's history of the case was confirmed by the physician in charge, who also stated that the girl had never menstruated; that the disease seemed to commence in the region of the right ovary; that it was ushered in, in the usual manner; that it had quickly spread until the whole abdomen was involved; that with opium, in different varieties, and local applications, the disease seemed to subside, after a somewhat *lengthy* course; but that tenderness over the abdomen had never entirely disappeared. He stated that there had been a rapid, feeble pulse (110 to 120) for the last two months; that the temperature had ranged from 100° to 101°; that the appetite had improved, but that digestion had not been good, and assimilation was very imperfect. She had also vomited daily for the last two weeks previous to my visit, and that emaciation had continued. No distinct chill since first attack was ever noted by the attending physician, though she *may* have had a slight one. The physicians had all recommended tonics of different kinds, with stimulants and judi-

* Read before the Obstetric Section of the New York Academy of Medicine, Nov. 28, 1879.

cious diet. Prof. C. and Dr. ——, of Burlington, had given a favorable prognosis, *provided* mesenteric consumption had not already begun.

At 9 A.M. on the 29th July, on coming into the presence of the patient, I found a young girl, apparently about fifteen, small for her age, with a bright, intelligent face, very pale, much emaciated, lying upon her back on the bed, with her thighs semi-flexed upon the body and legs semi-flexed upon the thighs; the voice was clear; she complained of inability to move her body or lower limbs, and of pain from any slight pressure upon the abdomen; could not allow her limbs to be straightened. She had no pain when left undisturbed, but even a *slight* jar of body, when being moved, occasioned great pain. Pulse was wiry, 120; temperature, 101°; respiration, 30°. Tongue slightly coated on the edges, and red in the centre. On gentle percussion, the parts being *exceedingly* sensitive, dulness was found to exist in region of right lower lung, in front. On auscultation, no healthy vesicular murmur was found in this immediate vicinity, but coarse, mucous râles existed in larger bronchial tubes. The mammæ were as undeveloped as in a girl at ten years. The abdomen was flat, and muscular walls drawn tense, somewhat fuller than would be expected after so long an illness, which did not involve this region. There was no swelling, tumefaction, fluctuation, softening, or change of normal color anywhere discovered. The parts, however, being so exquisitely sensitive, an *absolutely thorough* and *deep* pressure examination was not made. By exercising great care in percussion, I was able to make out an increased area of dulness in right hypochondriac region, extending downward toward, and including right iliac region. The most sensitive spot seemed to be near the lower border of the liver. On auscultating the abdomen, the usual sound of the passage of air through the colon was less distinct than normal in this region, and in fact all parts of the lower abdomen; the mons veneris was destitute of hair; a vaginal or rectal examination was not insisted upon, believing that little could be learned in this case from either, since the patient was a small, delicate, and justly modest girl—and the symptom of the presence of pelvic cellulitis and peritonitis still existing in the drawing up of the limbs, the occasional distress and pain in the pelvis, especially in efforts at urinating and defecation, and the tense, painful condition of abdomen. The kidneys had been active, and nothing abnormal was found in the urine. The bowels moved two and three times a day of late. In the fecal matter, much undigested food was discovered. The patient had vomited the night before my visit, and, in fact, had vomited once or twice each day for a week. The food had been vomited soon after entering the stomach.

From these symptoms, as said above, I concluded that the patient had had a sharp attack of pelvic peritonitis, which had not even now fully resolved; that this condition had extended until there was general peritonitis, which still existed in more or less of a chronic state, and that within a short time a localized pneumonia had developed in the region of lower lobe of right lung. My prognosis was not hopeful; still, on my second visit, I expressed my belief that she might recover.

I advised a continuance of hypophosphites and stimulants in regular and moderate quantities; elix. iron, pepsin, and Peruvian bark, with regular and frequent use of a small quantity of milk and lime-water, with a little lamb chop or beefsteak, toast or rice. I ordered the abdomen in region of the liver, chest, and lung of right side to be painted over with iodine faithfully once a day, with friction and massage to skin and muscles. I believe these recommendations were faithfully carried out.

I saw the patient again two days afterward (July 31st). Some symptoms were more favorable. Digestion better; had not vomited since previous visit; pulse, 115; temperature, 100¼°; respiration, 24; limbs still flexed; abdomen still quite sensitive; appetite better; craves greater variety of food than she has been allowed; dulness over right lower lung certainly less marked; fewer mucous râles; no cough. From this time until the 9th of August there was but slight change. Digestion was better, and the respirations less frequent; but the patient grew more emaciated. Œdema of the lower limbs manifested itself, and slowly extended upward. The fever seemed to increase every afternoon, and the temperature in the mouth would range from 101° to 103½° or more. The tenderness of the abdomen was so great, that a *thorough* examination by percussion and auscultation was at no time feasible. I was certain, however, that there was still an increased area of dulness over and below the right hypochondriac region. I expressed an opinion that there was an abscess of the liver, or at least near this organ. The patient was so feeble, and the prognosis so unfavorable, that both Dr. M. and myself feared the patient might not survive the exploration, and consequently the crucial test of the aspirating-needle was not made.

The following Wednesday (August 13th) the conditions had grown worse, and a sweetish odor to the breath was distinctly perceptible. Even then, for the same reason as before, the needle was not used. On the 17th the patient died.

On Monday, August 18th, an autopsy was held, at which Dr. M., Dr. D., and myself were present. The lungs and heart were found to be normal, except that there were traces of recent inflammation in the lower lobe of the right lung, and hypostatic congestion in posterior portion of both.

On opening abdomen, the stomach was found somewhat distended with gas, the liver enlarged, and its lower border, to the extent of nearly two inches, was embraced by the walls of an abscess which extended downward to the region of and involved right broad ligament. The front wall of the abscess was the peritoneum; the posterior, or floor of the abscess, was plastic lymph, which had completely agglutinated and covered the front of the intestines. The abscess extended inward to within two inches of the median line, and was about five inches long by three in width, and contained nearly a quart of pus. It was impossible to determine at what point the abscess began; but from the fact of its involving the right broad ligament, we may judge that here around the ovary was undoubtedly the *fons et origo* of the inflammation.

The pelvic organs showed evidence of recent inflammation; but neither these nor the intestines were carefully examined, since the evidence of the cause of all the symptoms had been clearly made out.

Remarks.—Here was a case of pelvic peritonitis extending into general peritonitis, and finally suppurative peritonitis of right side of abdomen.

On my first visit the symptoms were distinctly pathognomonic of peritonitis and pelvic cellulitis and slight pneumonia. The latter trouble improved; the symptoms of the second—pelvic peritonitis or cellulitis—viz., great tenderness in this region and the flexion of the thighs on the body, did not improve; and the evidence of general peritonitis of a chronic character remained.

The *tense* condition of the abdominal walls which I noticed at each visit, I believed to be due to the inflammation which had not fully subsided. Later, when a deposit of pus was believed to be present somewhere in the abdominal cavity, there being no pointing and no tumefaction, the searching for it with an aspirating-needle seemed no small undertaking, with so feeble a patient.

The lesson which I learned, and which in this somewhat detailed recital—and since so little is found in our text books and medical journals—I wish to teach, is this: when a patient has a peritonitis which is followed by a tedious and apparently unnecessarily lengthy convalescence, with an abdomen so sensitive to touch as to preclude a thorough examination, I should advise the administration of ether to relax the muscles as well as to produce less sensibility, and an examination by percussion and the hypodermic needle. Should pus be present, it should be drawn off with the needle or by free incision, as may seem most judicious at the time.

45 East Thirtieth Street.

Reports of Hospitals.

THE SURGICAL CLINIC AT JEFFERSON MEDICAL COLLEGE HOSPITAL,

Held by SAMUEL D. GROSS, M.D., LL.D., D.C.L., Oxon.,

Professor of Surgery.

(Reported for The Medical Record.)

I. MYELOID SARCOMA OF THE HEAD OF THE HUMERUS.
II. ERYSIPELAS INVOLVING THE SKIN AND THE SUBCUTANEOUS CONNECTIVE TISSUE.
III. PARAPHIMOSIS AND ITS TREATMENT.
IV. NECROSIS OF THE NASAL SEPTUM INVOLVING THE TURBINATED, AND THE PALATINE PROCESS OF THE SUPERIOR MAXILLARY BONE.
V. ABSCESS IN THE LEG, FOLLOWED BY THE FORMATION OF A SINUS.

This woman has been brought to the clinic by a medical friend from New Jersey, who wishes me to examine the case and advise with her parents regarding the propriety of an operation. You see at once that there is a large tumor situated on the superior extremity of the left humerus, and implicating a portion of the bone in the disease. The crepitation which I elicit by movement proves the existence of a fracture of the humerus at the lower part of the tumor. There is considerable swelling, but no discoloration of the integument. The pain is but trifling. The history shows that the patient fell on the ice last January, striking her left shoulder. The physician who was called in diagnosed the case to be one of fracture of the upper third of the humerus; but merely ordered the parts to be bathed with lead-water and laudanum.

There is considerable heat over the seat of the tumor. The patient states that her general health has been very good. She usually sleeps well at night, but occasionally she is wakeful, rendered so by pain in the growth. Her age is twenty-three years.

I need scarcely tell you that the growth is a sarcoma, commencing in the medullary structure of the head of the humerus, and terminating probably in the bone at the point of the fracture. There is, of course, nothing to be done but to remove the limb at the shoulder-joint. Excision would be of no use. It is for the patient to determine whether or not the amputation shall be performed.

ERYSIPELAS INVOLVING THE SKIN AND THE SUBCUTANEOUS CONNECTIVE TISSUE.

This patient has been suffering for some time from a chronic trouble in his left knee-joint, for which I treated him some two weeks ago by an application of the actual cautery. You notice these large eschars on each side of the patella. The effects of the cauterization upon the joint trouble were most palpable and immediate; but, unfortunately, just when we thought he was on the fair road to recovery, an erysipelatous inflammation set in, attacking the left leg and the upper part of the left thigh, together with the right groin.

The inflammatory action is, as you see, entirely superficial, involving only the skin and superficial connective tissue. It is a very curious fact, but one which is very often noticed, that the erysipelas, instead of making its appearance near the seat of the disease or injury, occurs, perhaps, at a remote part of the body as on the trunk, abdomen, or superior extremities, when the injury is situated upon one of the legs.

A man cannot have erysipelas if his constitution is in good condition; cannot have it unless he has been exposed to some malarial influence, or has suffered from a poisoned condition of the system, or from a disordered digestion.

I regard erysipelas, of course, as a local manifestation of a constitutional vice. Such being the case, we must make use of constitutional as well as of local remedies. I have, in the present case, been employing quinia and the tincture of the chloride of iron. Locally I have ordered the resident surgeon to apply a solution of acetate of lead, which is better than either simple warm or cold water, or water medicated with any other substance. The solution which I always employ has a strength of a half-ounce of acetate of lead to the quart of water. After dipping a cloth in the solution and applying it to the parts, the dressing should be covered with a piece of waxed paper or of oiled silk.

After treating the local inflammation, it is necessary to keep an eye on the secretions; and when the saliva is scanty, the tongue coated, and the digestion more or less impaired, I order a few grains of calomel, to be followed in the course of six or eight hours by a small dose of castor oil. I prefer the oil to the Epsom and Rochelle salts. These latter drain off the serum of the blood, and so, of necessity, weaken the patient. The oil has no such effect if given in a moderate dose.

Erysipelas is a very peculiar affection. It follows a great number of diseases and operations—amputation, lithotrity, the lying-in state, etc. I have seen one case in which a leech-bite was followed by the fatal erysipelas. Indeed, the story is told of an eminent citizen of the West who lost his life from an attack of erysipelas following a *flea-bite*. In a recent case under my own care a most severe attack of erysipelas followed the operation for the removal of a small tumor from the face, and our patients are always in great danger from these attacks, unless the greatest care is exercised over the case and the proper treatment instituted at an early date.

There are several varieties of erysipelas: 1st, that involving the skin and subcutaneous connective tissue alone, of which the present case is a good illustration; 2d, the so-called *phlegmonous* variety, in which

the skin and subcutaneous tissues, muscles, and deep-seated structures—down to the very bone itself—are involved. In this variety the swelling is often enormous. Suppuration takes place, and there is a universal infiltration of the tissues with pus, which is diffused extensively in all directions—almost dissecting out the parts, as it were, with a knife—and not at all circumscribed; 3d, the *œdematous* variety, which is most liable to appear upon the face and on the male and female genital organs. It is accompanied by an effusion of serum, together with a small quantity of plasma. The œdematous form of erysipelas is generally a very mild one, occurring mostly in old persons and in those whose systems are worn out from disease or exposure, or both.

Erysipelas is a result of blood-poisoning, and is therefore frequently a very grave disease, liable to terminate fatally, unless very carefully managed.

As regards treatment, as I have already told you, the best local application is a strong solution of the acetate of lead. Tincture of iodine diluted with an equal quantity of alcohol is also a valuable remedy; while in the milder forms of the disease zinc ointment occasionally answered good purpose. Sometimes simple emollient remedies, such as gum arabic, or flaxseed, either alone or with acetate of lead and laudanum, are productive of great benefit.

In all cases you must pay special attention to the constitution. When the appetite is poor, the liver torpid, and the alvine evacuations irregular; when the whole body aches, or profound lassitude supervenes, mercury should be employed, taking care that it does not act too briskly. In addition to the mercury you should, for their tonic effect, give quinia and the tincture of the chloride of iron. If there is much circulatory excitement the patient should be kept under the influence of two-drop doses of the tincture of the root of aconite, given three or four times in the course of the twenty-four hours.

A change of air is always desirable. Pure oxygen is a great desideratum in this condition. The ventilation must be good and the diet nourishing.

If it is the phlegmonous variety with which you have to deal, the local treatment should be conjoined with free incisions, thus providing an outlet to the effused serum and plasma, for, otherwise, the unhealthy action may run into suppuration, and pus is always a destructive agent, and may do great harm if allowed to remain pent up; harm which it may take weeks, and even months, to remedy.

When you meet with a case of erysipelas in the wards of a hospital, the patient should at once be put in a room by himself. If the weather be hot, he had better be quartered in a tent outside of the building, where there is an abundance of fresh air and sunshine.

PARAPHIMOSIS AND ITS TREATMENT.

This young man is about eighteen years of age. On the night of Thursday, October 16th, he had impure connection. On the following Sunday, October 19th, he was first conscious of soreness and throbbing of the penis. The organ became greatly swollen and much inflamed. When seen at the outdoor clinic there was so much phimosis that the prepuce could not at first be retracted. When retraction was finally effected, on the following day, five sores were brought to light on the glans penis. These sores were at once cauterized, and the patient was told to bathe the parts frequently throughout the day with warm salt water. When the prepuce had been retracted for some hours the glans penis began to swell greatly, and well-marked paraphimosis supervened. The only treatment of this condition thus far has been by bathing the parts with warm salt water and by position.

You will notice that, according to the history of the case, the phimosis disappeared when the foreskin could be drawn back, and that there was a considerable amount of infiltration of serum and lymph accompanying the phimosis. No sooner was the phimosis relieved than a violent paraphimosis was set up, marked by much œdema and great enlargement of the head of the penis.

The five sores were evidently five soft chancres. In soft chancres the ulcerative action is superficial, and extends rapidly, which is by no means the case with the hard chancre, where there is but slight discharge. In only about one case out of every four is the soft chancre likely to be followed by a bubo, whereas the hard chancre is always, or nearly always, so followed. These five soft chancres are very nearly healed to-day.

The cure of paraphimosis depends, of course, upon the reduction of the prepuce to its natural condition. In cases of recent standing, such as the present one, this is a matter of but very slight difficulty. When the infiltration, however, is very great, the reduction is very difficult. What we have to do in these cases, where infiltration has progressed to a great extent, is to place the patient under the influence of an anæsthetic, so as to render him insensible, and thus prevent him from offering any resistance. The surgeon should then grasp the organ behind the retracted prepuce, gradually force the blood out of the head of the penis, and press the head of the penis back while he draws the prepuce forward. This compound movement generally suffices to effect the reduction of the parts.

It has occurred to me that we might diminish the size of the head of the penis in these cases by applying a narrow band of gum elastic around the part, but this is not always practicable or possible.

When the surgeon is unable to effect reduction by the compound movement referred to above, he must proceed at once to make an incision through the stricture formed by the prepuce, with a bistoury. In all cases where the infiltration is great, incisions must be made into the parts inundated, in order to allow the serum to drain off. The penis, when paraphimosis exists, should never be allowed to hang down, but must be so placed as to point toward the umbilicus. If the swelling do not yield to the solution—acetate of lead—which we are using in the present case, we shall apply mercurial ointment as an absorbent, before attempting any operative measures.

NECROSIS OF THE NASAL SEPTUM INVOLVING THE TURBINATED, AND THE PALATINE PROCESS OF THE SUPERIOR MAXILLARY, BONE.

This woman is thirty-nine years of age. Eight years ago she began to suffer from nasal catarrh, which has persisted ever since. For the last two years the discharge has been very offensive, and has frequently contained fragments of diseased bone. Examination of the roof of the woman's mouth reveals extensive ulceration there. There is evidently necrosis of the nasal septum and turbinated bone, involving the palatine process of the superior maxillary bone. By means of a speculum, designed for the examination of the nose and anterior nares, I can plainly see the seat of necrosis, and upon introducing this polyp-forceps I come at once in contact with a piece of dead bone, which I shall im-

mediately proceed to remove. It is an exceedingly bloody and painful operation, but the woman bears it very bravely. I think that I have now succeeded in getting all the sequestra away. If the bleeding becomes unmanageable at any time, or if secondary hemorrhage should chance to ensue, the resident surgeon will have to plug the nares.

ABSCESS IN THE LEG, FOLLOWED BY THE FORMATION OF A LONG SINUS.

The abscess was not properly attended to in this case, and it has been followed by a sinus. I dwelt at considerable length at my last lecture on phlegmonous abscesses, and referred to the fact that sinuses often follow them.

This sinus has existed since the 26th of last July. There has been a large and constant discharge of pus from it. There are no healthy granulations, either within or around the opening of the sinus. The granulations which can be seen have not the elevated appearance indicative of robust, but on the contrary, present all the characteristics of unhealthy, action. There is a great deal of redness in the adjacent tissues. When I press upon the parts, they become blanched, but the blood returns to the surface the moment that the pressure is withdrawn.

The man is thin; his tongue is coated, and his digestion is poor. I find, upon inserting a probe, that the sinus extends up the limb toward the knee, a distance of nearly three inches and three-quarters.

How is the case to be treated? I have told you upon numerous occasions that the best plan is to lay a sinus freely open throughout its whole extent, and so allow it to heal from the bottom. Some authorities have suggested the injection of caustic or astringent solutions, and advised the subsequent employment of systematic compression; but none of these remedies are of much permanent account. We might insert a seton, but I never did approve of this nasty, filthy alternative.

It is always necessary to scrape the unhealthy granulations away throughout the whole extent of a sinus, and at the same time the undermined skin should be dissected from the aponeurosis for a considerable distance, so that healthy granulations may spring up. The sides of the sinus should then be brought together and a roller applied; a few adhesive strips are also needed so as to effect slight approximation.

You see here exemplified the bad effects of an accumulation of pus, all of which might have been avoided by a free and early incision, as is my invariable rule in all such cases.

Progress of Medical Science.

DIABETES DEPENDENT UPON LESION OF THE PANCREAS. In 1879, M. Lancereaux described a form of diabetes which had its origin in lesions of the pancreas. Since then, his pupil, M. Lapierre, has made a special study of this question, and given a valuable addition to its literature. The disease is marked by its sudden onset, and, from its inception, it is manifested by grave intestinal troubles, rapidly followed by polydipsia, polyphagia, polyuria, and glycosuria. In a few months the patient becomes greatly emaciated, he loses successively his physical, intellectual, and virile powers, sinks gradually into a state of exhaustion, and finally presents the symptoms of pulmonary phthisis. The total duration of the disease varies from six months to three years, the average being about twenty months. In addition to the general treatment indicated in all forms of diabetes, we have in these cases to attack the primary lesion. Unfortunately our efforts in this direction are of but little avail, being confined to endeavors to supply the function of the pancreatic juice by increasing the action of the auxiliary organs and by the artificial digestion of the food.—*Gazette des Hopitaux*, Oct. 18, 1879.

SPONTANEOUS DISAPPEARANCE OF LYMPHADENOMATOUS TUMORS.—At a meeting of the London Pathological Society, Dr. Coats, of Glasgow, related the case of a man who, when first under the surgeon's care, had had a number of small tumors in the abdominal walls. These, for the most part, disappeared, but others in time took their place. In about ten months as many as thirty-four were present; the man then became much worse, and finally died from vomiting and exhaustion. Post-mortem examination showed numerous tumors not only in the subcutaneous connective tissue, but also in the connective tissue of the abdomen, in the mesentery, and about the kidney. These tumors were found to be of lymphoid character.

The history of this case, which appeared to be unique, brought out the fact that similar ones had been observed, and that the occurrence of unstable lymphadenomatous growths was not so very rare. One has been reported by Dr. Duhring in this country under the head of "Inflammatory Neoplasm." Hebra has observed a case, and Sir James Paget and other members of the Society reported several. Such cases have sometimes been mistaken for cancer.

In their treatment, remarkably good results have been obtained from liquor arsenicalis and iodide of potassium.—*Med. Times and Gazette*, May 17, 1879.

HYSTERIA IN BOYS.—Dr. William Roberts contributes the history of several cases of hysteria in boys to the November number of *The Practitioner*. In prefacing these histories he mentions similar cases reported by other observers, but under different names; there being an unwillingness to apply the term hysteria to males.

The first case was that of a boy of thirteen. After some trifling ailment, he began to be hypochondriacal and low spirited. Eight months later he was attacked with a cough which soon changed into a true hysterical bark, and then into a kind of bleating noise. He kept this up nearly all day for several months; he then went through the exercise only at morning and night. The symptoms continued for about fifteen months, when the boy became perfectly well. The hysterical nature of this case was well marked. The mother had been hysterical when a girl, and the brother and sister were also affected for a short time. The disease in the latter persons took the same form of bleating, and was evidently brought on by unconscious mimicry.

The second case was that of a boy of eight or nine years. The hysterical symptoms in his case came on, as is not unusual, during convalescence from acute disease. The boy became suddenly subject to attacks of loud, passionate, tearless crying, with incoherent ravings of a most alarming and distressing character. These continued for a week; they then ceased for a week, to be resumed again, though with less severity. During the intervals between the paroxysms the boy seemed perfectly well. A removal from home surroundings and sympathy, with the daily use of the galvanic current, resulted in cure.

Case number three was an exquisite example of hysterical contracture. A healthy boy of eleven, while walking to church, began to limp. By the time he reached home his left foot was contracted inward in the position of extreme talipes varus. Under chloroform the spasm relaxed, but no force or mechanical appliance could keep it in proper position. There having been no injury, fever, or pain, the case was diagnosed as hysteria; the boy was encouraged to get up and try to use his foot. This he did, and in twenty-four hours was quite well.

The fourth case was one somewhat simulating epilepsy. A healthy, well-grown boy became gradually subject to short convulsive attacks, affecting the whole body. They occurred early at night or toward morning; afterward they took place in the daytime also. He remembered nothing of the attacks himself. There was no frothing at the mouth, or biting of the tongue. The boy suffered in this way for nine months, and then gradually improved, until he became quite well.

These cases prove the existence of hysteria, of undoubted character, in boys.

The Anatomical Changes in the Lymph-Glands in Tuberculosis, in Amyloid Degeneration, and in Tumors.—The following are the chief points of a paper by Prof. Cornil on the pathological changes of the lymphatic glands—a subject which he regards as of especial interest, because these changes are almost exclusively secondary to the so-called diatheses or affections of other organs, and because, from their character, conclusions can be deduced concerning the nature of the primary affection:

1. In *acute adenitis suppurativa*, the sinus, the lymph channels, and the cavernous tissue of the gland are filled with pus, which is also found in the connective tissue surrounding the capsule, and in the lymphatics that are connected with the gland.

2. *Syphilitic adenitis* is characterized in the primary and secondary periods by swelling and proliferation of the nuclei of the sinus-cells, together with moderate thickening or sclerosis of the connective-tissue framework. The latter is very marked only in the so-called strumous buboes of syphilis. In the tertiary period we meet with various forms of change: the glands may be indurated, cirrhotic, sclerosed, or cheesy. A rarer form of lesion is the so-called medullary adenitis; in this the entire cavernous or follicular substance is the seat of a chronic, what may be called catarrhal inflammation, the connective-tissue framework of the gland being unaffected. Such a gland is swollen and soft, and on section looks like the brain substance; it contains a whitish, milky juice.

3. In *scrofula* the glandular lesion is the sequel of a chronic inflammation of the skin or mucous membrane in a predisposed person. The lesion consists essentially in a chronic inflammation of the connective tissue, in a fibrous thickening of the original septa, which leads secondarily to the formation of isolated foci in the reticulated substance. The caseous degeneration of these nodules is due to the impeded circulation consequent on the primary sclerosis of the connective tissue.

4. *Tuberculous* lymph-glands resemble the scrofulous only in one particular—viz., in the tendency to undergo caseous degeneration; in all other respects the two processes are entirely different. In scrofulosis the glands become very large; in tuberculosis they usually remain small. In the latter the initial process is located in the lymph-channels and the perifollicular sinus; it is a distinct inflammation, characterized by the accumulation of numerous large cells in those parts. The scrofulous affection begins as an interstitial adenitis, as a new growth of the connective-tissue framework. In the fully developed state we find in the *tubercular* affection the characteristic tubercles—*i. e.*, small, isolated collections of minute, closely-packed round cells, which often enclose giant-cells and readily undergo caseous degeneration, while in the *scrofulous* affection the characteristic change consists in the isolation by the newly formed connective tissue of small islands of reticulated tissue filled with large lymph-cells. When one of these islands becomes caseous, the degeneration attacks the whole of it at once and progresses slowly, while the caseification of a tubercular nodule begins in the centre and extends rapidly.

5. In *amyloid degeneration* the enlargement depends on a chronic inflammation, which is both interstitial and catarrhal. Only the vessels of the cortical layer and the cell-masses of the cavernous tissue in contact with them, become waxy.

6. With regard to *tumors* of the lymphatic glands, the author simply lays down the following axiom: they reproduce faithfully the anatomical form of the primary tumor, and are produced by direct metastasis of its elements.—*Allg. Med. Cent. Zeit.*, September 20, 1879.

"Bloodless Method" of Performing Tracheotomy.—Dr. Reismann, of Haspe, Westphalia, describes an ingenious method of securing local bloodlessness in the operation of tracheotomy, which he has tried with success in one case. The incision made was only 2 ctm. ($\frac{4}{5}$ in.) in length, and carried down to the superficial fascia. The sides of the wound were then made to gape by lateral pressure with the fingers, and nine sutures were introduced with a delicate, curved needle, through the skin and the tissues covering the trachea, the point of the needle being carried as closely as possible to the trachea. The sutures were secured by single slip-knots, which were only drawn tightly enough to control temporarily the flow of blood, and the ends were given to an assistant, who, by slight traction on them, made the wound gape a little more. The operator then rapidly opened the windpipe and introduced the canula. As soon as this was fixed in place, the ligatures were loosened by simple traction on one end of the thread, and were withdrawn from the tissues. After the removal of the ligatures, there was scarcely any bleeding. If any had occurred, Dr. Reismann thinks it could have been easily controlled by pressure on the plate of the canula, and by the introduction under it of pledgets of tannin-cotton.—*Berliner klin. Wochen.*, Sept. 8, 1879.

Duplicating Prescriptions.—A recent medical act in Wisconsin reads as follows: "If any physician practising medicine in this State shall write or cause to be printed on any prescription the words 'No duplicate,' any vender of medicines who shall duplicate such a prescription without the physician's consent shall be subject to a fine of $10 for each offence."

The *Louisville Medical News* comments as follows: "We wish this law prevailed in Louisville. Here one prescription, gotten on credit, and often never paid for, is used by an individual or a family indefinitely, and besides, is often loaned to friends and relatives. It is pleasant to know, however, that the modest and moderate-charging druggist gets his little one hundred per cent. every time the ℞. is filled."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 20, 1879.

THE MEDICAL HISTORY OF THE WAR.

THE second part of the "Medical History of the War" is before us, and is a trifling matter of eight hundred and sixty-nine quarto pages. The first part of this medical history, issued in 1875, was made up mostly of statistical tables showing the diseases and deaths from which the army had suffered. Statistics in quarto form are not an attractive kind of literature, and consequently Part One has never been a popular work. The present volume covers a very different ground, treating of the alvine fluxes. It is in every way a noteworthy book, and one with whose value the medical profession should be familiar. Dr. Woodward has made a conscientious and thorough use of the magnificent materials at his command, and there is no exaggeration in saying that he has produced the most complete and exhaustive work on a medical subject that has ever been published. The medical profession, and especially American physicians, are to be congratulated that a volume so creditable to medical science has appeared.

A partial outline of the contents will give some justification for these statements.

The alvine fluxes are treated of at great length, on account of their prominence on the sick and mortality lists of the army. Of the 171,704 deaths from disease, 57,265, or about one-third, were caused by diarrhœa or dysentery. From five to ten per cent. of the troops were always on the sick-list from the same diseases. As the war advanced the mortality increased, until it had reached the number above given; and this does not, probably, represent the whole. As the deaths from acute diarrhœa were in the proportion of 1 to 395 cases, those from acute dysentery 1 to 57 cases, and those from chronic dysentery and diarrhœa 1 to about 4 cases, the immense number of persons subject to these fluxes can be imagined.

Dr. Woodward's treatment of the subject before him is in some respects original, as it is practical and exhaustive. He divides the fluxes into: 1. Acute diarrhœa; 2. Acute dysentery; 3. Chronic diarrhœa and dysentery; and, 4. Tuberculous diarrhœa. Under each head are given a history, with bibliographical notes; the pathology and morbid anatomy, most elaborately illustrated with woodcuts, photographs, chromo-lithographs, and steel engravings; then, in addition, are the usual topics of etiology, symptoms, course, and treatment.

The divisions which include the morbid anatomy and pathology will attract the most attention. They are mines of pathological lore as far as the particular subjects investigated are concerned, and much information upon allied questions in general pathology is also given. Inflammation and tuberculosis are instances of this branching out of the work. The photographs are excellently done, the micro-photographs being of sections magnified but sixty-three diameters. In thus using only the lower powers, the comparatively small value of high-power photographs is very properly recognized. Not much that is positively new could be expected from investigations of such easily studied lesions as those of the fluxes; but the presentation of these lesions has never before been so fully made. The most important practical contributions, however, are in the assignment of clinical symptoms to their proper anatomical lesions. The too prevalent misapprehension, especially among American practitioners, that diarrhœa is located chiefly in the small intestine, is referred to. In the cases examined, the parts most extensively affected in acute diarrhœa were the cæcum and sigmoid flexure, and, next to these, the ileum.

Chronic diarrhœa and chronic dysentery are treated together, for it was found impossible to make any satisfactory clinical distinctions between them.

Under the head of tubercular diarrhœa a full account of the tubercular process is given. Dr. Woodward expresses two tolerably positive opinions with regard to this much-discussed morbid disturbance: first, that the so-called giant-cells, said to exist in the ultimate tubercle, are figures resulting from the action of reagents upon sections of lymphatic vessels stuffed with coagulated fibrin; and, second, that the development of the ultimate tubercle is determined by the formation of a small fibrin clot obstructing a small lymphatic vessel.

Acute diarrhœa and acute dysentery were found to shade into each other so gradually, that distinction on any grounds was often difficult. Clinically, however, the symptom of tenesmus is, somewhat arbitrarily, assumed to be pathognomonic of acute dysentery. Anatomically, in dysentery, the ulcerations, the diphtheritic exudation, and the lower situation of the lesion mark the character of the disease in all but the mild cases. Very often mild forms of acute catar-

rhal dysentery are not distinguishable, anatomically' from acute diarrhœa.

Passing over the subject of etiology with the statement that the contagiousness of dysentery is not allowed to have been proved, we come to the discussion of the treatment. This covers ninety pages. The value of every drug that has ever attained reputation in the treatment of diarrhœa or dysentery, from the time of Hippocrates down, is exhaustively examined. Some of the writer's conclusions are, that ipecac has but problematical value in acute dysentery; that in the same disease, calomel, whether in large or small doses, is not a remedy to be advised. Oil of turpentine and camphor receive the slightest possible commendation. Purgatives are recommended, but not castor-oil. Sulphate of magnesia, the neutral salts, and rhubarb, are to be preferred. A small work on materia medica might be compiled out of this discussion upon the therapeutics of dysentery and diarrhœa. We cannot adequately comment upon it here.

We have given quite unreserved praise to this book, and such it deserves. Our Government, which has begun to gain some reputation abroad for the scientific work it has set on foot, will get in this, as in its companion volumes, credit for having done what no other nation has attempted or can attempt. This credit will be reflected upon our own profession at home, which is doing more every year to prove that Americans are capable of legitimate scientific work.

There is but one regret to express in this connection. The present work is too bulky and costly for very wide distribution. Besides this, the practical parts are so buried in voluminous details, that the whole becomes valuable almost solely for reference. It would be most desirable if a condensed work could be made in which the statistical tables, bibliography, some of the history, and all superfluous discussion should be left out. Such condensation, properly made, would have a place among the classics of medical literature. In its present form it earns the title of "The Book of Magnificent Proportions;" but one cannot lift it to the niche of those immortals on whom dust will not gather.

CHICAGO AND THE LIMITS OF SANITARY INTERFERENCE.

THE history of sanitary measures in Chicago is one which, on the whole, does the city great credit. Situated as it is, largely upon swampy ground, whose average elevation above the lake is only twelve feet, and exposed to strong winds and sudden changes of temperature, it would be natural to expect a high percentage of mortality. Through its energetic attention to sewerage, however, and through the establishment of its magnificent water-works and extensive parks, it has reduced the death-rate to eighteen per thousand, which is less than the average in large cities.

Encouraged by such results, doubtless, the Board has of late displayed an increased energy of action, which has at length raised up much opposition among the more conservative. Some time ago, red placards were ordered to be hung on the door of every house in which there was a case of scarlet fever; the Health Commissioner has been inspecting the meat markets, and has attempted to confiscate bad meat; the milk, too, has been inspected, and efforts made to limit the increase of its watery constituents; the foul odors from rendering establishments have been abolished; the public libraries have been inspected, and the possibility of contagion through circulation of the books examined into and provided for; the tenement-houses have been visited, and police authority exercised to secure the bettering of their condition; registration of births and deaths, as well as notification of the appearance of contagious diseases, are, of course, demanded of the physicians.

The discussion that has been excited by the very active manner in which all these measures have been carried out, raises some interesting questions. There is, for instance, a decided lack of definite knowledge as to where municipal sanitation should end and private effort begin. If public authority goes too far, it will excite alarm and distrust; furthermore, private organizations, as a rule, do vastly better work than public ones, and in sanitary matters it is instruction that is needed quite as much as authority. The principle, that sickness does not make a man a criminal, and that the government has no right to injure the private citizen even for the public good, without some compensation, should be in general the guide in drawing the line where sanitary interference should end. We are disposed, therefore, to take a conservative view of the question in hand. There is a tendency just now to an excessive display of sanitary efforts; and some of these, without advancing the public good, curtail the liberty of the individual, and impose especially upon the doctor. The confiscation of damaged meat, the placarding of houses in which scarlet fever exists, and the compelling physicians to report births, deaths, and infectious diseases, are among the measures whose enforcement has excited either open opposition or secret evasion.

We shall not attempt to discuss the particular merits of the first two points, as they have as yet no great significance to the most of the profession. Upon the subject of compulsory registration, however, some recent discussion and action have occurred that deserve attention.

For fifteen years the medical profession in Great Britain, appreciating the importance of the early notification of cases of infectious disease, has urged the adoption of a compulsory registration. Their efforts have been largely successful, but the compulsion has, contrary to the advice of the British Medical Association, been laid upon the doctors instead of upon

the householder in charge of the disease. At the last meeting of this Association, the committee deprecated in strong terms this arrangement of the matter, and presented a number of reasons against it. These are, briefly, that it placed the physician in the position of an informer upon the affairs of his patient; that it is unjust to add to the danger incurred by medical men in attending upon infectious diseases, the possibility of indictments and fines for not making a report which an arbitrary enactment demands of them; that such an enactment leads people to evade it by not calling in medical help; that any injury to business caused by the physician's giving notice of the disease is liable to be ascribed largely to such medical attendant; and, in case of disputed diagnosis, much trouble may result.

There is justice in these arguments, and they come from high authority. It is certainly an imposition upon the doctor to oblige him to be responsible for the notification of contagious diseases; there is no question of the injustice, morally speaking, at least, of subjecting him to heavy fines in case of failure in the imposed duty. Practically, however, the imposition does not appear to be so oppressive, and it is certainly the easiest and most convenient way of getting at the facts; the doctor would always have to help the householder make out his report, and would often have to be both his stationer and amanuensis.

While denying the justice and admitting the occasional inconveniences, therefore, of placing this obligation upon physicians, it seems unnecessary to make any special protests until the members of the profession express themselves more strongly, either against the law or in favor of compensation for being placed under it. Individual complaints should come first.

The exact limits of proper and just sanitary interference cannot yet be defined. We will have to learn them largely by practical experience, and they will always have to be of sufficient elasticity to meet the emergencies of great epidemics. Meanwhile the profession should see that the dash and *élan* of the modern sanitarian result in no unnecessary or uncalled for encroachments on the personal liberty and rights either of themselves or their patients.

MEDICAL RECEPTIONS.

The old saw, that all work and no play helps to make the subject of that condition a dull boy, has a striking application to members of our profession. At best, our calling is an exacting and tiresome one, and its followers need something to offset a more or less continuous mental strain. We are glad to see that the old notion that the physician must be different from other men, is fast passing away. On the contrary, some of our best workers are those who seem to enjoy life the most. They are to be seen at the opera, the theatre, the concert hall, and at the fashionable receptions, with a regularity that would surprise the man who says he never has time to do anything but strictly professional business. The secret of the whole matter is, that some amusement gives in the end a better capacity for real work, when the latter is necessary. It is a promising sign that such amusements are beginning to be common among medical men. Medical receptions are becoming quite frequent, and their enjoyable character is likely to make them still more popular. Aside from showing honor to distinguished strangers, we know of no means better calculated to edify the man medical as a social being, and to give him a closer sympathy with his medical brother, than the receptions to which we allude. On such occasions the individuals meet on the common ground of enjoyable sociability, and lose sight of mere differences of opinion in a common desire to be happy themselves, and agreeable to their companions. Already the receptions which have been recently held are beginning to bear good fruit, transforming apparent strangers into congenial associates, and in creating a better understanding with all as to the true relation which professional gentlemen should bear to each other. We have a slight suspicion that the expression, "the more the merrier," will not be considered original with us, but it is nevertheless applicable to the occasion.

SUITS OF MALPRACTICE.

The resolutions of the Medical and Surgical Society of Baltimore, bearing upon the frequency of suits for malpractice and their prevention, are timely and in keeping with the general sentiment of the profession. When it is known that almost always the foundation for such suits is laid by an ill-advised remark of a brother practitioner, if not by open hostility on his part, the manner in which the profession can protect itself becomes quite apparent. Not only should such remarks be discouraged, but members making them should be disciplined by the societies. It is bad enough to be compelled to testify as an impartial expert, but when one becomes a willing witness against his brother, he fathoms the lowest depths of professional meanness. The way to prevent such possibilities is, as the Baltimore Society suggests, to be on the safe side by actively discouraging all such suits. No medical man can afford to raise himself at the expense of belittling his profession by attempting to prove that his rival is an ignoramus.

Improvement of the Blind.—A Society for the Improvement of the Physique of the Blind has been founded in London. Its object is to improve the physique of the adult blind, to assist the physical education of blind children, and to prevent blindness in children, as far as possible, by teaching the hygiene of the eyes. It expects to train teachers for these purposes, to introduce physical exercise into blind-asylums, and to collect information regarding the causes of blindness.—*Brit. Med. Journ.*

Reviews and Notices of Books.

THE PHYSICIAN'S HANDBOOK FOR 1880. By WM. ELMER, M.D., and A. D. ELMER, M.D. New York: W. A. Townsend.

THIS handbook, which is now in the twenty-third year of its publication, is certainly a *multum in parvo*. It contains a list of the diseases which are usually met with in practice, with a brief epitome of the symptoms and treatment of each, short articles on emergencies and their treatment, on poisons, their symptoms and treatment, and on the diagnostic examination of the urine; lists of incompatibles and of antagonistic remedies; tables of weights and measures; a condensed list of remedial agents, with their preparations and doses; and an article on the art of prescribing. After all this, we have an alphabetical ledger, a daily visiting-list for the year, obstetrical and diagnostic records, and a space to enter cash received. As might be expected, the attempt to include so many things in one volume has made it rather bulky for pocket use. The book is published in the usual style of a visiting-list; it contains 314 pages.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. III., pp. 335. Wood & Co. 1879.

THE contents of this third volume consist of reports of three hundred and thirty-six cases and specimens presented during the year 1875, with a supplement of numerous similar cases selected from the archives from the year 1844. There are three classes of subjects: diseases of the organs of digestion, continued from Vol. II.; diseases of the genito-urinary tract; and observations in one hundred cases of cancer. In each department the collection indicates careful pathological research. The diseases of the liver, of which there are seventy-one cases; of the gall-bladder, ducts, etc., thirty cases; and of the spleen, thirty-two cases,—are grouped with reference to parenchymatous and interstitial changes (due chiefly to chronic disease), degenerations, growths, malformations, and eccentricities. Carcinosis, waxy and fatty degeneration of the liver, hypertrophy and infarction of the spleen, form a large array of these diseases. John C. Peters gives a concise history of yellow fever in New York; Francis Delafield reports a case of red atrophy of the liver—a rare form of hob-nailed disease, due to contraction of the hepatic cells; E. G. Janeway presents a furrowed liver, the furrow being due to obstruction of the portal vein; Thos. M. Markoe contributes an unique specimen of acute miliary tubercular disease of the liver. There are no less than six cases of rupture of the spleen, all traumatic; a note suggests that this accident has been seen in typhoid, remittent, and relapsing fevers, and in cholera.

Considerable space is devoted to pyo-nephrosis and nephrotomy, cases of which, with the operation, are detailed by Alfred L. Loomis and F. D. Lente. Lente's operation of nephrotomy is the first instance on record in the literature of the last two hundred years, where the term is limited to "cutting down upon an ureter or kidney *entirely free* from *perinephritic disease or adhesion*, with no guide except the anatomical relations of the parts." This limitation corresponds with the signification of Rayer, Civiale, and Desault. Mr. Bryant's and Mr. Anandale's operations were for pyo-nephritic abscess. There is a large category of renal cysts, and a few, too briefly noted, cases of tuberculosis of the kidney. This is a rare form of disease, easily mistaken for pyo-nephrosis, and sometimes called strumous pyelitis. Forty-four cases of affections of the bladder are noted, of which ten are ruptures; eight of the ten have a tramautic origin. So rare is a rent in the bladder in connection with a stricture of the urethra, that Sir Henry Thompson never saw it; Sir Everard Home noticed two cases, and Pitha refers to one case. Gurdon Buck's new method of puncture of the bladder is detailed—viz.: by incising, as in the bilateral operation for lithotomy, and following up the cut with the thumb in the wound and finger in the rectum, until the position of a previously introduced full-sized sound is reached. There are twenty-two cases of diseases of the Fallopian tubes and eleven of superfœtation.

The observations in regard to cancer were made for the purpose of considering: (1) the accuracy of the microscope as a means of diagnosis; (2) longevity, as increased by the knife; and (3) the best treatment. The one hundred unselected cases are from St. Luke's, Presbyterian, and New York Hospitals, the Pathological Society, and the College of Physicians and Surgeons. The cases are extensively tabulated, where it will be seen that ninety-five per cent. were examined by competent microscopists. Drs. Satterthwaite and Porter have done their work so carefully, that fifty-seven cases have been completed from the inception of the disease to death. The drawings are by Mayer, Satterthwaite, and Amidon.

The third volume will rank with the previous ones as a text-book of pathology. The editor is to be congratulated on the character of their favorable reception by such authorities as the *Edinburgh Medical and Surgical Journal*, whose notices appear in the preface; while the present reviewer attests to the announced opinions of Billroth and the Librarian of the Royal College of Surgeons, London, made in private conversation.

A BIOGRAPHICAL DICTIONARY OF CONTEMPORARY AMERICAN PHYSICIANS AND SURGEONS. Edited by WILLIAM B. ATKINSON, M.D. Second Edition; Enlarged and Revised. Philadelphia: D. G. Brinton. 1880.

THE present is hardly an improvement on the first edition of this work. The paper, if possible, is poorer than before, the type old and more worn, and the portraits are omitted. This latter circumstance is no particular calamity, except so far as it detracts from the general appearance of the volume and denies the reader the opportunity of amusing himself with the vanities of others.

There are a number of new biographies, sixteen pages of which form an appendix to this condition, and two pages of corrections. Each of these additions is provided with a separate index. Why the subjects should not have been incorporated in the body of the work does not appear, unless perhaps that, with the exceptions noted, the work is printed from the stereotype plates of the former edition. Dr. Atkinson is still the editor—the publisher being D. G. Brinton, of Philadelphia.

CHICAGO MEDICAL GAZETTE.—The first number of this new bi-weekly journal is at hand, and is a very creditable issue. Dr. E. C. Dudley is the editor.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Nov. 12, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

SARCOMA OF SUPERIOR MAXILLA.

DR. MASON exhibited a section of the cranial and facial bones, showing the termination of a sarcoma of the superior maxillary bone. The patient from whom the specimen was removed was a widow, aged thirty-four years. Dr. Mason saw her, for the first time, during February of 1878, when she was sent to Roosevelt Hospital. Her history then was, that two years previously she had an abscess of the left upper jaw, supposed to be due to a defective tooth. After the abscess discharged itself, a small, soft, smooth growth made its appearance on the opening, and continued to increase in size.

At the time of her admission to the hospital, the whole superior maxilla seemed to be involved in the growth. She suffered from intense pain, the left eyeball protruded, and the sight was defective. Her general condition was much below par, so that the operation was deferred for a month, she having been under tonic treatment in the meantime.

The entire superior maxillary bone was removed in March, 1878. On examination, the growth was found to be a spindle-cell sarcoma. She speedily recovered from the operation, the pain was relieved, but the vision still remained defective. She left the institution, apparently perfectly well, in August of that year.

In March, 1879, she called on Dr. Mason, when the disease was found to have returned. A growth of considerable size was found projecting into the mouth, was very vascular, and had occasionally given rise to hemorrhage through the mouth and nose. She was again sent to the hospital. Dr. Weir then removed all the growth within reach. She recovered speedily from that operation, but soon the growth again appeared, increased rapidly in size, and was attended by profuse hemorrhages, necessitating the frequent application of Pacquelin's cautery. She gradually failed, and died July 16, 1879.

A careful autopsy was made. The base of the nose was protruded, and the cavity of the left nostril was completely plugged by the growth, the latter making its way externally. The space formerly occupied by the superior maxilla was filled with sarcomatous tissue, also the posterior nares, a portion of the pharynx, the sphenoidal and ethmoidal cells, and lastly through the sphenoidal fissure into the middle fossa of the skull. In the latter locality the growth was the size of a pigeon's egg. The left optic nerve was found surrounded by the neoplasm.

In answer to a question from Dr. Seguin, Dr. Mason stated that there were no cerebral symptoms manifested, save those that were due to loss of blood.

CARCINOMA OF THE RECTUM—LUMBAR COLOTOMY.

DR. HOWE presented a specimen of carcinoma of the rectum, removed from the body of a female upon whom lumbo-colotomy had been performed.

Anne Perkins, æt. 58, a native of Bohemia, was admitted to St. Francis's Hospital, Feb. 19, 1879. She could not speak English, and all the history attained a meagre one was given by her brother.

Eleven weeks previous to admission she began to feel pain on defecation, which gradually increased as the disease progressed. There was also great difficulty in emptying the bowels. Some blood came away with the fæces. Fæcal matter was stringing out reddish yellow in color. She was confined to her bed for several weeks previous to coming to the hospital, and had been one week without an evacuation of the bowels.

On examination, the patient exhibited well-marked cancerous cachexia. She suffered intensely. The abdomen was greatly distended and tympanitic. Pressure over it occasioned pain. The rectum seemed completely closed by irregular masses of new formations, which were soft on the surface and which bled freely. There was a small, but constant discharge of pus and blood from the rectum. The margin of the anus was red and indurated.

An attempt was made to move the bowels by passing a gum-elastic catheter beyond the mass which closed the rectum, and injecting warm water and sweet-oil. Castor-oil was also given internally, but all failed to give relief.

On the third day after admission I performed lumbar colotomy in the usual manner. When the gut was opened, there was considerable discharge of gas, with small portions of hardened fæces.

Patient was ordered hypodermic of morphia, ten minims, and ten grains of quinine. Morning after the operation pulse was 146, temperature 102°. Had six passages through the artificial anus during the day. On the 3d, three days after the operation, patient was very comfortable, had little or no pain; temperature, 101°; pulse, 102. General improvement continued. One week after operation sutures were removed—upper portion of wound healed by first intention—lower portion was ununited and suppurating freely. Pulse, 100; temperature, 100°.

On March 7th there was some prolapse of the gut, and diarrhœa, which was early checked. Wound healed. Patient continued free from pain; her appetite returned as she gained in strength, until she left the hospital in June. She afterward went to Ward's Island Hospital, where she remained until she succumbed to cancerous disease of the rectum, September last. Her life was prolonged seven weeks.

In answer to a question from Dr. Briddon, Dr. Howe stated that the prolapsus was three inches.

DR. BRIDDON referred to a case in which the prolapsus was the length of the arm. In his own cases, four in number, there was no protrusion through the new anus. He did not believe that the kind of incision, whether straight or oblique, had anything to do with the result.

In connection with this subject of lumbo-colotomy Dr. Mason referred to a case in which sudden death after the operation was due to copious alvine evacuations. Two or three similar cases were on record as having occurred abroad, but his was the first of the kind in this country.

DR. HOWE presented a second specimen, consisting of a calculus removed from a female bladder by dilatation of the urethra.

LITHOTRITY IN THE FEMALE.

Anne McManus, æt. 60, unmarried, was admitted to St. Francis's Hospital, September 22, 1879. Has always been in delicate health. Two and a half years ago she had an attack of renal colic, which lasted nearly four hours. Shortly after this she began to

complain of a lancinating pain in the hypogastrium, frequent desire to micturate, and pain also about the meatus urinarius. For two years past she has been unable to pass her water. It had to be drawn off with a catheter. The catheter for some months previous to admission had to be passed fifteen times each day. The pain was constant, and received little or no relief from the catheterization.

On examination, patient was found to be pale and very much emaciated. The urine was alkaline on reaction, contained pus and mucus, and phosphites. On passing the sound, a calculus was found occupying the roof of the bladder near the neck. She was unable, or at least seemed to be unable, to pass her water under any circumstance.

On the 26th of September patient was etherized, and the neck of the bladder dilated with Molesworth's dilator, and two calculi extracted. The larger one was held in position by a layer of false membrane.

After operation, ten minims of morphia were injected, and ten grains of quinine given by the stomach.

Sept. 27th.—Pain in hypogastric region is diminished, but not completely absent. Pulse and temperature normal. Urine dribbles freely from the meatus.

Sept. 28th.—No pain in bladder; considerable pain at meatus urinarius, which is much swollen. Incontinence has ceased, and can pass water without any difficulty.

Sept. 29th.—Complains of pain and inability to make water. Catheter is again used.

Sept. 30th.—Patient able to go about; feels comfortable. Pus and mucus in very small quantities in the urine, but she insists on having the catheter used every three or four hours. Thinking that there was a little nymphomania evident in this, I ordered the catheter to be discontinued. For two days she passed water, but on the third day prevailed on the nurse to use it again, in order, as she said, to relieve her pain, and until she left the hospital I allowed its use two or three times each day, although I felt convinced that she could do without it, and that it was simply a desire for titillation which created a demand for its use.

It is a curious fact that the incontinence did not continue for some days longer in this case. Usually, after dilatation of the female urethra, there is incontinence for at least one week. In this case it lasted only twenty-four hours.

Unless the stone is very large, I think the lithectasy, if performed by means of Molesworth's dilator, is the best operation. The urethra can be stretched for an inch and a quarter without any danger of permanent incontinence, and in a few days resumes its normal size and function. The dilation of the urethra also serves another purpose, viz., cure of the cystitis. I have performed it for that disease alone with good results, and the cystitis due to the stone is much more rapidly removed than when crushing is resorted to.

WAXY DEGENERATION OF THE PLACENTA.

Dr. Heitzmann presented some specimens of placenta, with a view of supplementing a previous report upon the real character of the so-called fatty degeneration of that organ. He had concluded, from a number of specimens examined, that the deposit was waxy in character. His reasons for such opinion are given in a detailed written report.

This subject had been worked up in his laboratory by Dr. Jeannette B. Greene, resident physician in the House of Mercy. Ten placentæ were examined, the youngest six weeks, the oldest eight months, most of which were thought to be fatty when looked at with the naked eye. In eight cases the fœtuses were born dead, or died shortly after delivery. The waxy degeneration was located both in the decidual portion and the villosities, only in three cases there being present a relatively trifling fatty degeneration of the decidua-elements. The nutrition of the fœtus is interfered with by compression of the blood-vessels in the villosities, and in certain territories all vessels become impermeable to blood-corpuscles. The following reagents were applied: carmine, oil of cloves, turpentine, iodine, fuchsin, and methylanilin. It was shown that the waxy degeneration attacked the basis substance and killed the living matter only in the highest degrees of the disease, while the fatty degeneration takes place in the living reticulum of the protoplasm, mainly in the decidua-elements. In one case there was waxy degeneration of the amnios; in two cases waxy degeneration of the umbilical cord.

THE MICROSCOPICAL EXAMINATION OF THE SKIN IN A CASE OF ERYSIPELAS.

Dr. Amidon presented microscopic specimens of idiopathic erysipelas as contributions to the study of the pathological anatomy of that affection.

An exceedingly violent facial erysipelas attacked a patient convalescing from acute articular rheumatism, and, complicated by a croupous pneumonia, proved fatal on the fifth day. The pulse ranged from 80 to 140, the respiration from 28 to 60, and the temperature from 39.5° C. to 40.6° C. Besides the visceral changes usually found in this disease, a minute examination of the skin (taken from the inflamed area) showed the following lesions: desquamation of the epidermis; rete mucosum everywhere thin, and in places separated from the subjacent papillæ and disintegrated. The hair-follicles, sebaceous and sudoriferous glands the seat of abnormally large collections of young epithelial cells; many of the large and small blood-vessels are thrombosed, and all along their course a moderate, and in spots an excessive, migration of new cells has taken place. The subcutaneous cellular tissue everywhere contains an increased number of nuclei, especially marked in the adipose tissue. Here and there disorganized, sloughy masses are met in the subcutaneous areolar tissue, almost miliary in size. The subjacent muscle (in this case platysma) was the seat of a waxy change.

DROPSY CELL-FORMATION.

Dr. Seguin presented an example of very rare elemental disease of the nervous system, consisting of several ganglionic cells which had undergone the vacuole or dropsy cell-formation. The specimen was a section of the spinal cord below the point of softening of a case of descending degeneration of the lateral portions of the posterior columns. He remarked that the lesion had been observed by very few, and its pathological significance was at present unknown. These vacuoles presented the appearance of transparent circles, in some cases overlapping each other, seemingly embedded in the substance of the ganglionic cell. By some observers they were thought to have no pathological importance, being simply accidental appearances. Charcot, for instance, was inclined to believe them to be the results of decomposition.

THE PATHOLOGICAL DIFFERENCES OF DIPHTHERIA AND MEMBRANOUS CROUP.

Dr. Lewis Smith presented the larynx and trachea removed from an infant one and a half years old, who

had died of diphtheria a few days after the attack. The patient had been seized with hoarseness, followed by croupy cough and the usual attendant symptoms. No pseudo-membrane was visible in the fauces.

At the autopsy this exudation was discovered on the posterior surface of the uvula and along the adjacent sides. Dr. Smith exhibited the specimen for the sake of calling attention to the question of the diagnosis between diphtheria and croup. Clinically he could make out no distinction between the two, except that one was contagious, and the other not.

Dr. Heitzmann stated that four years ago he had the opportunity of examining many specimens of pseudo-membrane and sputa removed from the throats of children dying of diphtheria and croup. Many of these specimens were sent to him by Dr. Lewis Smith. As the result of his microscopical observations he had come to the conclusion that croup and diphtheria, as far as the deposit was concerned, were essentially the same thing, the only difference being that in croup the pseudo-membrane coagulates upon the surface of the membrane, killing the superficial epithelium, while in diphtheria this exudation goes into the substance of the tissue. When the latter condition obtains, there is death of the deeper tissues, and subsequently the appearance of nests of micrococci. It could easily be seen that in the earlier stages the membrane could be peeled off, while in the later stages this was impossible. In the earlier stages of the deposit the presence of the nests of micrococci was impossible.

Dr. Carpenter asked if a diagnosis could be made on the presence or absence of micrococci.

Dr. Heitzmann believed that this could be done in the earlier stages of the deposit.

Dr. Ripley remarked that he had examined seventy-five cases in which pseudo-membrane had existed in the fauces, and in all micrococci were present. Consequently, allowing the theory advanced by Dr. H. to be the correct one, all the cases were those of diphtheria. Again, he had met with cases in which the membrane could be peeled from the underlying tissue, and yet these died of diphtheria with the usual symptoms of blood-poisoning.

Dr. Heitzmann stated that, in speaking of micrococci in diphtheria, he had purposely referred to their occurrence in nests. Otherwise there was no significance in their appearance, as it was well known that they were always more or less scattered in old mucus.

ANEURISM OF THE ARCH OF THE AORTA.

Dr. Ripley presented a specimen of aneurism of the arch of the aorta. The history was as follows:

F. M., German, æt. 34, waiter, was admitted into St. Francis's Hospital, Feb. 10, 1879. His family history could not be ascertained. He himself had had scarlet fever when a child, typhoid fever at seventeen, and subacute articular rheumatism eight years ago. He had also had several attacks of gonorrhœa, and five years ago syphilis. His present illness began several weeks ago, when, after exposure to cold, he began to suffer from pains in both scapular regions, the left hip, and left side. To these symptoms were added a dry cough and slight dyspnœa on exertion.

As the history book does not show that a general physical examination was made at this time, I presume it was not down, although a double aortic murmur is recorded. His troubles, for the most part, were attributed to constitutional syphilis, and after remaining in the hospital six weeks under treatment for that disease, he had so far recovered as to be able to resume work, and complained only of hoarseness, which had been present during most of the time he was in the hospital. He continued at his business until the following September—four months—when he became a patient at the hospital. On admission he stated that he had not been free from hoarseness while away, and had periodic attacks of cough and dyspnœa. His subjective symptoms now were weakness, paroxysmal cough, and dyspnœa on exertion, and pain in the left shoulder, left side, and the left interscapular regions. He was aphonic, and had a harsh laryngeal cough, accompanied with abundant muco-purulent expectoration. Rest and sedatives relieved his distressing symptoms for a time, and my attention was not called to him until the middle of October, when notes were made of the following physical signs:

On inspection, deficient expansion was observed under both clavicles, most marked under the right; also epigastric and intercostal retraction during inspiration, most marked on the left side. By palpation the apex of the heart was found beating feebly in its normal position. No abnormal impulse could be felt at any point over the chest-walls. The left radial pulse was much smaller and feebler than the right, while pulsation in the left common carotid was stronger and fuller than in its fellow. Percussion under the right clavicle was vesiculo-tympanitic; in the left infra-clavicular region it was very dull, more marked nearer the sternum. The inspiration was broncho-vesicular under the right clavicle, and the expiration prolonged and wheezy. On the left side, in the same region, the inspiration was bronchial, while nothing but converged laryngeal sounds could be heard on expiration. Below these regions sibilant and sonorous râles accompanied a feeble respiratory murmur. Behind, in both interscapular regions, there was dulness on percussion, but more extensive and pronounced on the left side. Below, over both lungs, the percussion was tympanitic. The respiration in the right interscapular region was broncho-vesicular, accompanied with dry râles; and in the same region, on the left, it was purely bronchial. Below, over both lungs, exaggerated breathing.

The diagnosis of an intra-thoracic tumor was made, with, of course, the probabilities favoring aneurism. The case was referred to Dr. Elsberg for a laryngoscopic examination, who reported that he found "congestion of the soft parts in the interior of the larynx, and complete paralysis of the left vocal cord." After hearing the history, he expressed the opinion that the symptoms were due to aneurism. A few days later, I detected a slight diastolic murmur, heard only over a very circumscribed space in the median line near the fourth costo-sternal articulation. A positive diagnosis was now made of any aneurism of the transverse portion of the neck of the aorta pressing upon the left bronchus and trachea.

The further progress of the case presented few new features. The cough and dyspnœa continued to be the most prominent symptoms, pain not being very constant nor very severe. The patient died of exhaustion, October 22d, after having passed a night of great suffering from continuous difficulty of breathing.

The autopsy was made twenty-four hours after death, by Drs. Schlereth and Cauldwell, of the house staff. After removing the sternum it was observed that the lungs had not collapsed, but that the parts visible were in a state of extreme inflation and bloodless. There was no fluid in the pleural cavity. The middle lobe of the right lung, and the lower lobe of the left lung were firmly attached to the costal

pleura, by old inflammatory bands. The lungs still remained distended after removal from the chest, and were comparatively bloodless, except their lower lobes, which were the seat oft hypostatic congestion and œdema. Several subpleural air-bulbs were noticed in either lung, and the superficial vesicles generally appeared larger than normal. The larger bronchi, especially of the left lung, were filled with muco-pus, and the mucous membrane inflamed. The heart and great vessels, the larynx, trachea, and the stumps of the primary bronchi and the œsophagus, were removed *en masse*. An examination of these organs showed a sacculated aneurism the size of a large Havana orange springing from the posterior and superior wall of the transverse portion of the arch of the aorta, and including in its pouch the origins of the left common carotid and the left subclavian arteries. It had rested upon the left side of the body of the third dorsal vertebra, which, denuded of its periosteum and partially absorbed, had formed the posterior wall of the tumor. It had also forced its expansion downward into the left broncho-tracheal angle, so as to flatten and partly close both of these tubes. The left inferior laryngeal nerve was pressed upon throughout nearly its entire length, and was with difficulty dissected out for examination. The ascending part of the arch was noticeably dilated and atheromatous. The heart presented no marked pathological changes. The mucous membrane of the interior of the larynx above the vocal cords was congested and a little thickened. The liver and kidneys were congested. Traces of an old perisplenitis were found, and the organ itself was enlarged. The other organs were not examined.

The points which seem to me of most interest in this case are :

1. The inflated and emphysematous condition of the lungs.
2. The absence of any marked hypertrophy of the left ventricle of the heart.
3. The presence of a diastolic murmur alone.
4. The mechanical paralysis of the recurrent nerve.

The state of the lungs was of especial interest to me because it corresponded, substantially, to that in which I have found those of children who have died of bronchial croup after tracheotomy, and due, practically, to the same cause—narrowing of the air-passages. In a majority of these cases, the children die in from about sixty to eighty hours after the operation. The cough increases, the pulse and respirations become accelerated, and the temperature rises to 103°–105°. Nearly the same physical signs are present as before the operation. An autopsy shows inflated and anæmic lungs, while here and there a patch of collapsed membrane lines the tubes to a variable extent, completely plugging those branches leading to collapsed lobules. I have never yet found pneumonia at such autopsies, although it is put down in the text-books generally as the most frequent cause of death.

OVARIAN CYST AND CYST OF BROAD LIGAMENT.

Dr. C. C. Lee exhibited two specimens, one consisting of a large ovarian cyst, and another of a cyst of the broad ligament, for the purpose of comparing the pathological appearances of each. The ovarian cyst had been removed by him ten days before, and contained twenty pounds of albuminous ovarian fluid. Notwithstanding it had been growing for ten years, not a single adhesion was present.

The second specimen, that of cyst of the broad ligament, was removed by Dr. Emmet. It contained clear fluid, non-albuminous in character, and of a low specific gravity, and contained none of the ovarian corpuscles.

Dr. Lee called attention to the differences in the physical appearances of the two specimens. The ovarian cyst was smooth, and showed no veins upon its surface, while the cyst of the broad ligament presented the appearance of a fibro-cystic growth covered with veins.

The diagnosis between these two growths was not very easy before operation. Still it was well to take into account the extreme rarity of cysts of the broad ligament compared with ovarian tumors, their comparatively slow growth, and the small amount of constitutional disturbance which they caused. The character of the fluid would be of assistance in arriving at an opinion, inasmuch as said fluid was not albuminous and did not contain the characteristic ovarian corpuscle.

RAPID LITHOTRITY—DEATH.

Dr. Keyes presented specimens of five urinary calculi removed from five old men averaging over sixty-six years of age.

The largest stone weighed 540 grains, and was removed by Thompson's washing-bottle in fifty-seven minutes, all told. The smallest stone weighed ninety-eight grains dry. It was removed in nineteen minutes.

Dr. Keyes used his own modification of the lithotrite for crushing the stone in every case.

Thompson's newest improvement in the washing-bottle was exhibited. It was used in Dr. Keyes's last case.

These stones made a series of twenty consecutive operations of rapid lithotrity performed by Dr. Keyes in connection with Dr. Van Buren.

There had occurred one death. It was the fourth of the last five of the series. The bladder and kidneys were shown.

This patient was a gentleman of sixty-seven. He was known to have pyelitis and kidney disease before the operation. His urine was very light, and contained casts and albumen besides the pus.

The patient had been confined to bed by his maladies nine months. The stone had not been discovered.

Dr. Keyes concluded to attempt rapid lithotrity as being the only operation offering the patient any chance.

The bladder was pouched toward the right ureter. Thirteen minutes were consumed in catching the stone for the first time, and a seizure was only finally effected by turning the patient well upon the side.

After one hour of manipulation, rendered very unsatisfactory by the pouched condition of the bladder, the sitting was terminated; one hundred and ninety grains were removed. No chill or serious consequence followed, and it was decided, after three weeks, to undertake another sitting.

The second sitting lasted one hour. Débris, weighing when dry twenty-eight grains, required one hour for their removal, it being next to impossible to get the last fragments out of the pouch. An increase in the quantity of pus in the urine followed with almost total suppression, and death on the fifth day.

The right kidney was shown of about one-half its normal size, and the seat of interstitial nephritis. The left kidney was of full size, but similarly diseased, although to a less extent. Each kidney pelvis contained about a gill of thick pus, the left one some

fragments of phosphatic stone. Both ureters were thickened and dilated.

The urethra was healthy. The prostate was the seat of some central enlargement.

The bladder was smooth and uncongested. It showed no evidence of violence. The mucous membrane was unbroken. The pouch at the site of the entrance of the right ureter into the bladder was very evident.

The walls of the bladder were much thickened.

Dr. Keyes maintained in this case that the patient's diseased condition was the cause of death, a catastrophe precipitated undoubtedly by the operation. He still believed, however, that the latter was justifiable under the peculiar circumstances of the case.

In one very similar case, the same operation had been entirely successful at his hands.

In the present instance, as shown by post-mortem examination, the operative manœuvres had not resulted in any direct physical lesions.

Referring, in one of the cases, to the difficulty of grasping the stone in the bladder, Dr. Lee suggested that the stone might have been fixed by grasping the base of the bladder by the hand previously introduced into the rectum. Dr. Lee had succeeded in fixing the uterus in that manner when all other means had failed. The case was one of retained placenta with flooding.

Dr. Keyes remarked that there was less risk in resorting to such a manœuvre in the female than in the male, the pelvis of the former being much more roomy.

The Society then went into Executive Session.

Correspondence.

RESUSCITATION OF AN INFANT AFTER A LONG PERIOD OF ASPHYXIA.

To the Editor of The Medical Record.

Dear Sir: A recent number of your journal contains an article giving an account of the resuscitation of a new-born infant after a very long period of asphyxia. A case occurring in my own practice a short time ago may be of interest in this connection.

Mary D——, an Italian woman, 18 years of age, was taken in labor Nov. 4th, at 9 o'clock P.M. I saw her soon after, and found the os partly dilated and the child presenting by the breech.

I informed the friends of the girl that, owing to the mother being a primipara and rather small, there would be some danger to the child in this case, though little or none to the mother. At 12 P.M. the os was fully dilated, but the pains were infrequent and the child made no advance. After waiting a long time, I disengaged one leg and brought it down in the vagina. At the end of another hour, the child making no advance and the woman showing some signs of exhaustion, I was compelled to make traction upon the child's foot to hasten the delivery. In thirty minutes the shoulders were born, and the arms safely brought down by the side. I then instructed the husband to make firm pressure upon the abdomen over the fundus of the uterus, while I encouraged the mother to make strong bearing-down efforts. The head soon came down so that I could insert two fingers of my left hand into the child's mouth, while my right hand grasped the back of the child's neck under the pubic arch. This was the critical moment for the child, but unfortunately, owing to the rigidity of the mother's parts, no progress could be made for some time, and, in despite of every effort on my part, it was fully five minutes before the head was born.

The English authorities state that, if the head is delayed in the passages longer than three minutes after the birth of the shoulders, the result to the child is almost invariably fatal. In consequence of the long delay in the delivery of the head, I was not surprised to find the child asphyxiated. The cord did not pulsate, nor did it bleed when cut. My finger, when passed into the child's mouth and down into the larynx, could not detect the faintest sign of any reflex action. To all appearances, except for a faint and unfrequent pulsation of the heart, the child was limp and dead.

I at once laid the child upon blankets before the fire, and commenced artificial respiration according to Marshall Hall's method. After some fifteen minutes at this method, combined with dipping the child alternately into hot and cold water and rubbing with brandy, there was no sign of animation. I then resorted to another method of artificial respiration. Holding the back of the head and shoulders in my left hand and the pelvis in my right, with the little fingers of each hand extending along the spine, I alternately flexed and extended the body of the child, after the manner of opening and closing a jack-knife. By this means I attempted to contract and expand the cavity of the thorax. A prolonged effort by this method gave no apparent result, and I resorted to a third.

The child was placed in a sitting posture upon blankets before the fire. My right hand was placed behind the head and thorax of the child, and its body leaned backward so that it rested upon this hand. The hands of the child were carried as far as possible above its head by my left hand. By this the ribs and shoulders were raised, while the head was thrown backward, thus expanding the thorax and drawing air into the lungs. The second movement was to lower the arms of the child so that they fell by its side, while my hand, still retaining those of the child in its grasp, rested against the front of the child's thorax and head. The third movement was to lean the child forward and press suddenly downward upon its shoulders, at the same time that the hand in front pressed the ribs inward. This method, which is somewhat difficult to describe, but easy to carry out, caused the first certain expulsion of air from the child's lungs (and a consequent refilling of them), for the air could be heard bubbling out through the nose and mouth of the child. Then the lungs were refilled by the first movement. Still this respiration was entirely involuntary on the part of the child, and ten minutes' persistent effort by this method gave no sign of returning animation. Nearly three-quarters of an hour had now elapsed since the birth of the child, and meantime the child's skin began to feel cold and clammy. On account of the coldness of the child, I determined to use external heat in conjunction with artificial respiration. I called for a deep bowl partly filled with water, at a temperature of about 112°. I placed the child in the bowl in a sitting posture, so that the water came up to the child's diaphragm when its body was in what I have called the "first position" in the last method of artificial respiration.

Then the artificial respiration was kept up accord-

ing to this method, while the child's body was partly immersed in hot water. After a few minutes, I was astonished at the child showing a little color in its cheeks, and then making its first spasmodic effort at inspiration. Fully five minutes elapsed before it made another gasp, but gradually its efforts became more frequent, and at the end of an hour and three-quarters from the time of its birth, I ventured to cease artificial respiration. The child was then breathing rapidly with a shallow gasping respiration. I ordered it to be rolled in blankets, without being dressed, and placed in the bed with its mother. Two hours later its breathing was stronger, but still shallow. The following day it appeared as strong as any child, and since then has grown rapidly.

I wish to call attention to a few points in this case.

First.—The long period of profound asphyxia. It was more than three-quarters of an hour before the child gave the faintest sign of returning animation. The asphyxia was so profound, that during all this time, when my finger was carried down into the child's larynx, so as to touch its vocal cords, there was not the slightest indication of reflex action. Hence, I judged that external stimuli, such as slapping and dipping into alternately hot and cold water, would have but little effect in this case. There have been cases of longer asphyxia of the new-born than this reported, but I venture to say that many infants are allowed to perish, because less persistent efforts on the part of the accoucheur are made than were made in this case.

Second.—This method of artificial respiration, with the child in the sitting posture, as I have described it on a former page, is in my judgment more efficient than any other method of artificial respiration for the new-born.

The defect in the Marshall Hall method of artificial respiration is, that while the thorax is being compressed to cause expulsion of the air from the lungs, the diaphragm is apt to be pushed downward, thus partly annulling the effect. In the method of respiration by flexing and extending the body of the child, the arms of the child are not raised above its head during the attempts at expanding the thorax, hence the fullest expansion is not attained.

But in the method with the child in the sitting posture, the arms of the child are carried above its head during the attempts at filling the lungs, while in the expiratory effort the diaphragm is pushed strongly upward at the same instant that the ribs are pressed inward.

Third.—This method of artificial respiration is the only one that can be conveniently used while the body of the child is partly immersed in hot water; that is, *the only method that can be used while a high degree of external heat is closely and constantly applied to the subject.*

Fourth.—The value of external heat in asphyxia neonatorum.

It has come to be a recognized fact that external heat is of great value in restoring animation in cases of drowning or fainting. It should not be of less importance in asphyxia of the new-born. In a profound case of asphyxia neonatorum, the continuance of the asphyxia is not due to the absence of respiration alone—for, by a good method of artificial respiration, we can perform this function, so far as regularly supplying the lungs with air is concerned; but it is due to the weak and deficient circulation of the blood. As a consequence, the nerve centres do not receive the stimulus of oxygen, and the respiratory and other functions are not established. Hence, the indication is to supply a strong stimulant to the circulation. Such a stimulant is *external heat*, and practically it is the only stimulant that can be employed in these cases.

Not alone does external heat act as a stimulant to the circulation, but it prevents that rapid waste of animal heat that must ensue where the usual methods of artificial respiration are employed.

Without laying claim to originality in the use of external heat alone in the resuscitation of the new-born, or of artificial respiration alone, yet, so far as I know, this is the first case reported where a high degree of external heat and an efficient method of artificial respiration have been combined in the same method of resuscitation.

W. E. Forest, M.D.

168 Spring Street, Dec. 8, 1879.

GRATUITOUS SERVICES TO CLERGYMEN.

To the Editor of The Medical Record.

Sir:—In a recent editorial you alluded to the custom of "deadheading" clergymen, and suggested that the medical profession owed them little consideration, on the ground that they (the clergymen) were among the strongest upholders and abettors of quackery, and exerted their influence against the welfare of the profession far more frequently than in favor of it. A striking instance of this appeared in this morning's paper, announcing the formation of another Twenty-five Cent. Provident Dispensary, which, the newspaper informs us, is recommended by the Rev. Dr. Crosby, the Rev. Dr. Ormiston, the Rev. Dr. Collyer, Bishop Potter, and the Rev. Dr. Taylor. Do these gentlemen really suppose that the enterprise is conceived in a spirit of pure charity? Do they not know that the "provident" feature is rather calculated to provide a comfortable living for an impecunious doctor, than to create a feeling of independence among the poorer classes, and help the general profession? We are glad to find that the name of the physician in charge of this new Provident Dispensary is not in the Medical Register.

Yours respectfully,

M. D.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 7th to December 13th, 1879.

Kimball, J. P., Capt. and Asst. Surgeon. When relieved from duty at White River, Colo., to proceed to Ft. Sanders, Wy. T., and resume his duties as Post Surgeon. S. O. 111, Dept. of the Platte, Dec. 6, 1879.

DeWitt, C., Capt. and Asst. Surgeon. To resume his duties as Post Surgeon, Fort Sidney, Neb. S. O. 111, C. S., Dept. of the Platte.

Bengal Branch of the British Medical Association.—An Indian branch of the British Medical Association was founded several years ago, but has not held any annual meetings for a considerable time. It is now to be revived, and made an active organization again.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 13, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Dec. 6, 1879....	0	8	48	1	122	51	0	0
Dec. 13, 1879...	0	11	51	1	196	33	0	0

SUITS FOR MALPRACTICE. At a regular meeting of the Baltimore Medical and Surgical Society, the following preamble and resolutions were unanimously adopted:

"*Whereas*, There have occurred of late several instances of unjust and unwarrantable prosecutions of members of the medical profession for alleged malpractice, with the evident intention of muleting them for damages, we deem it advisable, for the protection of the profession, to urge upon them not to lend aid or countenance to such efforts by unguarded expressions of opinions; and therefore be it—

"*Resolved*, by the Medical and Surgical Society of Baltimore, That as physicians and surgeons we will not aid, abet, or encourage any proceeding favoring suits for malpractice against members of our profession who are in good standing.

"*Resolved*, That we will uphold the dignity and honor of the profession under all circumstances, and support and sustain its members when shadowed by unjust demands or assailed by unworthy asseverations."—*Virginia Med. Monthly.*

AMERICAN MEDICAL ASSOCIATION. At a meeting of the Committee of Arrangements of the American Medical Association, held in this city Dec. 3, 1879, the following committees were appointed: *Committee on Building*—Drs. M. A. Pallen, M. H. Burton, W. M. Polk. *Reception Committee*—Drs. Jos. C. Hutchinson, W. M. Polk, M. A. Pallen. *Committee on Finance*—Drs. Stephen Smith, A. A. Smith, W. R. Gillette, R. F. Weir, M. H. Burton, E. H. Parker. *Committee on Business*—Drs. M. A. Pallen, Jos. C. Hutchinson, Stephen Smith. *Committee on Invitations*—Drs. W. M. Polk, R. F. Weir, E. H. Parker. *Committee on Entertainment*—Drs. C. J. Pardee, M. A. Pallen, F. Weir. *Committee on Printing*—Drs. R. F. Weir, Stephen Smith, W. R. Gillette. S. O. Vander Poel, M.D., Chairman Committee of Arrangements; W. R. Gillette, M.D., Secretary Committee of Arrangements.

DR. ALFRED H. MCCLINTOCK, the eminent Dublin obstetrician, is expected to reach this city early in the coming January.

DR. JOHN L. ATLEE, OF PENNSYLVANIA.—Dr. J. Marion Sims gave a reception on Friday evening, December 12th, at his residence on Madison Avenue, in honor of Dr. John L. Atlee, of Lancaster, Penn., who made a short visit to this city. The attendance was large, and represented the medical celebrities of this and neighboring cities. Dr. Sims made an appropriate speech, which he concluded by reading a letter of regret from Prof. Gross, of Philadelphia.

Dr. Atlee responded, and humorously referred to the telling qualities of the Dutch blood of Pennsylvania. He also took occasion to say that the courses of instruction in the medical colleges were too brief. The effectiveness of this part of the speech was well-nigh destroyed by a playful remark of Dr. Sims, to the effect that both himself and Dr. Atlee took only two courses of lectures. But Dr. Atlee was equal to the occasion by the remark, "We could learn more then than students can now."

A bountiful supper was afterwards served, and the remainder of the evening was spent in pleasant social intercourse.

Among the gentlemen present were Professors Barker, Darling, Draper, Gouley, Hammond, Hamilton, Keyes, Lusk, Loomis, McCready, Noyes, Otis, Pallen, Sayre, Seguin, Taylor, Thomson, Wood, and Doctors Anderson, Agnew, Clymer, Eliot, Garrigues, Gillette, Heitzman, May (of Washington), Nichols, G. F. Shrady, Charles D. Smith, and a host of representative young men in the profession.

There was a large delegation from Brooklyn amongst them: Armor, Bell, Burge, Dudley, and Hutchison. Also, Kimball, of Lowell; Swinburne, of Albany; Didama, of Syracuse; Fisher, of Sing Sing; Vedder, of Jersey City; Levis and Goodell, of Philadelphia, and Bramlette, of Virginia.

NEW YORK MEDICAL JOURNAL.—Dr. James B. Hunter has resigned his position as editor of the *New York Medical Journal*. His successor is Dr. Frank P. Foster, of this city. Dr. Hunter has been for a long time connected with this journal, and has succeeded in placing it in the front rank of American monthlies. From what we know of the ability and industry of Dr. Foster, the new editor, we have no doubt that the high reputation of the periodical will be maintained. We cordially wish him abundant success.

JOURNALISTIC CHANGES.—The *Medical News and Library*, and the *Monthly Abstract of Medical Science*, have been consolidated into a single issue—*The Medical News and Abstract*. The "library" department of the News has been given up and the clinical department enlarged.

HONORS TO DR. J. LAWRENCE SMITH. Professor Smith, who has, in addition to many other honors, recently been made Corresponding Member of the Institute of France, was tendered a complimentary dinner by the citizens of Louisville on his return to that city. A number of toasts were given and speeches made. Among others a toast to "The Press" was responded to by Dr. R. O. Cowling, of the *Louisville Medical News*, who, in a very clever speech, maintained that the *L. M. News* was the only independent political journal in the city.

PROF. GEORGE E. POST, M.D., BEIRUT, SYRIA.—We are gratified to learn that our countryman, Professor George E. Post, M.D., has been knighted by the Prussian Government, and has received the decoration of the "Ernestine Hausorden of Saxony," on account of his services in the Hospital of St. John, under the charge of the Prussian deaconesses at Beirut, Syria.

SALISBURY PLAN OF TREATMENT OF CONSUMPTION.—Dr. Ephraim Cutter has established a small "home" near Boston, for carrying out the Salisbury treatment of consumption. Dr. S., we believe, claims to diagnose consumption one year before the development of its usual symptoms and signs. This is done by

examining the blood, which, in the protuberculous state, contains certain spores and fibrin filaments. The method of cure is by a rigid system of diet, raw meat being a prominent feature of the same.—*Va. Med. Monthly.*

PAINLESS LABOR.—Dr. William Badger, of Flushing, N. Y., writes: "In your issue of November 22d, is an article with above caption, by Dr. A. M. Smith, which encourages me to relate the following particulars, which I have refrained from publishing earlier, fearing it might appear slightly fishy:

"In the spring of 1875 I was engaged by Mrs. F. to attend her in her fourth confinement; she requesting me to go as speedily as might be when called, as she 'had *never had any pain* in her previous labors, and consequently could not know how early to send.'

"On the morning of April 20th I received the expected summons. While removing my overcoat she exclaimed, 'Hurry, doctor, I fear you are almost too late.' I replied, 'You do not appear to be in pain.' She answered, 'I have *no* pain, but I know it is coming.' I found the head upon the perineum, and the delivery was completed by two strong expulsive uterine efforts; but, as she assured me, without pain, and her countenance and manner were not indicative of the slightest suffering.

"She had no after-pains—said she had never had any—and was up on the fourth day.

"In subsequent conversations, she again assured me that in her four confinements she had had no labor pains."

IN THE HIGHER WALKS OF CHEMISTRY.—At a late meeting of the Section of Chemistry of the New York Academy of Sciences, a paper was read with the following title:

"Some New Azo-compounds: including Azobenzol-trinitro-oxybenzol, Azobenzol-trioxybenzol, Azobenzol-oxicarboxylbenzol, Azosulphoxylbenzol-phloroglucin, Diamidoazo-toluol, Diamidoazo-naphthaline-hydrochlorate, and Azobenzol-methylsulphoxylbenzol"—(*with specimens*).

This shows progress, and gives us hope that many of the hidden things may yet be revealed unto us. Possibly some of these compounds would be of service in diphtheria, by being effective bacterierati-cides. For most horses, the hay is a little beyond reach, but to the few who are accustomed to feed from high levels, rare opportunities are now offered. The Diamidoazo-naphthaline-hydrochlorate would seem to give the best promises for further study. We venture this opinion without having seen the specimen. At all events, we are pleased to learn that our chemical friends are still adding to our stock of knowledge, and helping to make their science an exact one.

THE DOCTOR'S FEE AND THE WAY OF THE WORLD. Patient with severe colicky pains at 3 A.M., says to his doctor:

"Save me, and I will give you a check for a thousand dollars."

As patient is wealthy, doctor smiles "childlike and bland," and administers an hypodermic injection of morphine.

Five minutes have elapsed, and patient feels easier.

"Keep at it, doctor, and I will give you a check for five hundred dollars."

Five minutes more, and patient drowsily turns in his bed, smiles his thankfulness through his tears, and assures the doctor that he feels like giving him a "fif-t-y dol-lar bi-ll."

The doctor calls the following day, finds his patient up and dressed, and ready to go to his business.

"You see, doctor, I have got over my little attack without giving you much trouble, but be sure to send in your bill the first of the month."

When six months elapsed the doctor sent in a bill amounting to three dollars. His grateful patient pressed him to cut it down to two. After so doing, the doctor sued to get it, and his patient put in a stay of execution. Case still on.

The doctor has lost his faith in grateful humanity, has moved to Pine Ridge, on the Hudson, and is negotiating for a partnership with the "Successful Practitioner."

THE LATE DR. OLIVER WHITE, OF NEW YORK.—At a meeting of the Medical Board of the Presbyterian Hospital, held Nov. 12, 1879, Drs. William Detmold, Jared Linsly, and Governeur M. Smith were appointed a committee to prepare resolutions in relation to the decease of Dr. Oliver White, which resolutions we herewith respectfully submit.

Whereas, Dr. Oliver White, an earnest friend of the Presbyterian Hospital from its incipiency, and for a number of years President of the Medical Board, has been removed by death:

Resolved, That the Medical Board desires to express and to place on record its warm appreciation of the loss the hospital has sustained by this bereavement.

Resolved, That Dr. White, during the inception of the hospital, and before it was erected, interested himself in promoting the success of the benevolent enterprise, and in engaging both the influence and means of a number of the medical profession in promoting the humane purpose of the institution.

Resolved, That Dr. White, to the close of life, was unrelaxing in his interests in the hospital, and, when smitten with disease, persisted in performing his duties until overwhelmed by his malady.

Resolved, That as Consulting Physician and as President of the Medical Board, his counsels were wise, being governed by intellectual vigor and Christian principle, and that the successful career of the hospital has been due in no small measure to his watchfulness and guidance.

Resolved, That a copy of the above preamble and resolutions be sent to the family of the deceased, to the Board of Managers of the Hospital, be recorded on the minutes of the Medical Board, and be published in the medical journals.

S. T. HUBBARD, *Chairman.*
JAMES V. S. WOOLLEY, *Secretary.*

BOOKS RECEIVED.

PARACENTESIS OF THE PERICARDIUM. By JOHN B. ROBERTS, A.M., M.D. Philadelphia: J. B. Lippincott & Co. 1880.

PHYSICIANS' DAILY POCKET RECORD, comprising a Visiting-list, Memoranda, etc. D. G. BRINTON, Philadelphia. 1880.

TRANSACTIONS OF THE ILLINOIS STATE MEDICAL SOCIETY, 1879. Chicago: C. H. Blakely & Co.

ANNUAL REPORT OF NEW YORK METEOROLOGICAL OBSERVATORY FOR 1878. DANIEL DRAPER, Director, New York.

THE THEORY AND PRACTICE OF MEDICINE. By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P. Third American from Fourth London. Philadelphia: Lindsay & Blakiston. 1880.

Original Communications.

SOME OF THE COMMONER AFFECTIONS OF THE TONSILS, FROM A DIAGNOSTIC AND THERAPEUTIC STANDPOINT.*

By GEORGE M. LEFFERTS, M.D.,

CLINICAL PROFESSOR OF LARYNGOSCOPY AND DISEASES OF THE THROAT, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

MR. PRESIDENT AND GENTLEMEN: Pleasurable as it is to me to try and serve the Academy of Medicine, it is not without some hesitation that I stand here to-night, in the fear that I may be accused of an undue and immodest assumption of authority upon the special topics to which I shall, for a few moments, ask your attention. I reassure myself, however, with the reflection that our objects and aims are ultimately the same, and that the general practitioner and the specialist, each in his own department of work, and according to the opportunities granted him, strives to relieve the suffering, to minister to the comfort of man's estate, and to lessen the sum of human sorrow upon earth; and still further, as Hutchinson has told us, "that in the early stage of any department of knowledge, it is almost a matter of necessity that it should be in the hands of a few; but it is the highest privilege of those who thus devote themselves to reclaiming new spots of territory, to be able, after a time, to hand them over to the commonwealth, to prove that they are now cultivated and well worthy of annexation."

Our work is therefore inseparable. We must, of necessity, look to each other for assistance; each is able to contribute from his store of experience—an experience gained by earnest, manly labor in that particular field to which inclination, opportunity, or special paths of study have led him—something which will be of value to his fellows,—the elder to the younger, the younger specialist to the older practitioner.

With these views, and in this spirit, I have selected for your consideration and discussion, at the suggestion of our honored President, a topic which is taken from that special field in which I am a worker, and which I believe can be made of practical interest to both of us.

Although it is not long since laryngology has taken its place with medicine and surgery as a special study, it has, in that short time, shown in all its departments a great and rapid progress. It to-day contains much that is new and valuable. More ample and more accurate are the means at our disposal for diagnosis in affections of the upper air-passages; more extensive and more detailed is our knowledge of the healthy and morbid changes which take place in the larynx, and in the enunciation of its pathological laws. New remedial agents have been discovered, and old ones more scientifically used. Means have been rejected which are proven to be inert and useless, though transmitted to us surrounded by the halo of age and tradition. A broader view is taken of the treatment of many throat affections—notably of those of which I shall speak to-night. Routine and empirical treatment—the "do-something" therapeutics of Williams—have been discarded; and finally, laryngeal surgery has been perfected, and endo-laryngeal means attained brilliant results—a perfection and results which almost tempt us to say, with Erichsen, "that we believe we have reached something like finality in the manipulative art of surgery."

I propose, then, asking your attention to some of these newer points in one branch of the art—that of the diagnosis and treatment of some of the commoner tonsillar affections; and, while I naturally strive to avoid an apparent position of didactic pretension, to which I cannot feel that I am entitled, to offer a few suggestions which may, perhaps, be profitably utilized by those in general practice.

Starting with the trite maxim, that before we can act, we should learn to see; to see in order to foresee; and to foresee in order to modify and direct, I desire to deprecate the old method of a tea-spoon handle and an imperfect and fitful light, and to call the attention of the practitioner unfamiliar with its use to the valuable assistance rendered, in any pharyngeal examination, by the large and well-made concave forehead reflector of the laryngoscopist, and the use of artificial illumination. It renders him independent of time. Night is as day. It allows of his examining his patient in any position and in any place without disturbing him; the fauces of the frightened child in its mother's lap, of the bedridden adult, of the patient unwilling or incapable of moving at the dictum of the surgeon, and of the sufferer unable to more than slightly unclose his jaws, can severally be quickly and thoroughly examined; while the extent and accuracy of the picture obtained will be such as to surprise the practitioner unversed in the use of these methods, and richly repay him for any time or trouble expended in unlearning old ways and acquiring new.

A tendency, which is to be deplored on diagnostic and therapeutic grounds, exists in the practice of many medical men to be less particular than it seems to me they should be in the *nomenclature* of tonsillar affections; to class all inflammatory diseases, whether within the tonsillar gland, or of the tissues in its immediate neighborhood, as one and a similar affection. "Quinsy and ulcerated sore throat" are terms which with them cover the whole ground; while, on the other hand, the public are too prone to speak of every throat affection as "diphtheritic," a conceit in which, I regret to say, they are encouraged by a certain class of practitioners.

This looseness of nomenclature can but lead to confusion, misconception, and unscientific treatment. As a matter of fact, the inflammatory conditions to be named, both in their causation, seat, symptomatology and treatment, are as widely different as in like conditions elsewhere. And it does not appear to me, therefore, that the differences of which I shall speak can be said to be only of amount and degree, and that they involve no true pathological variety, as has been asserted.

Inflammation may attack either the parenchymatous tissue, or the secreting tissue of the tonsil, or the tissues about it. This is our classification. In the former case, if acute, it will proceed to the formation of true tonsillar abscess, or so-called quinsy; but let me state at once, that such a condition is comparatively rare, and that abscess of the tonsil, so regarded, is more often an inflammation and suppuration of the tissues at the base or in front of the gland, but with all the distressing symptoms, and the same general appearances, as in the true affection. Verneuil has shown us that the tonsil does not ad-

* Paper read before the New York Academy of Medicine, Dec. 5, 1879.

here very firmly to the groove, if it may be so termed, which lies behind it; and that when tumefied by inflammation, it bulges out between the anterior and posterior pillars of the soft palate, and moves backward and forward with every movement of deglutition. This mobility, he asserts, is one of the principal causes of the formation of abscess. The gland being continually displaced, a serous bag forms in the connective tissue, which stretches between both pillars of the fauces, and occupies the bottom of the groove in which the tonsil lies. In this serous bag the purulent gathering is formed. Such an abscess—and bear in mind, if you please, that it is the one commonly met with in practice—is always deep-seated, and cannot, therefore, be easily reached by the knife, as an incision directed in a straight line toward and through the tumor, which the tonsil forms in the isthmus of the pharynx, would not be able, under ordinary circumstances, to open it.

The practical import of this observation is at once apparent. To incise such an abscess, it is necessary to cut through the anterior pillar of the fauces; for this pillar—enlarged, œdematous, and protruding—forms the anterior wall of the abscess. In this locality, even as high up as near the junction of the hard and soft palate, I have repeatedly operated with success, and, I must add, have in some instances experienced that mortification which every surgeon must feel who cuts for pus and does not obtain it. The reason, after one or two mistakes, was clear to me. The swelling of the tissues in the locality just described puts upon the stretch the musc. thyreo-palatinus, in the anterior arch of the soft palate; and the musc. pharyngo-palatinus, which lies to the outer side of it, in close relation to the tense lig. pterygo-mandibulare; between the two is thus left a small, triangular, soft spot, palpation of which conveys to the finger a decided sense of fluctuation, which is very deceptive. I therefore call your particular attention to it.

When the inflammation occurs in the secreting tissues of the tonsil, it rarely, if ever, on the other hand, develops an abscess, and its character may be more distinctly expressed by the terms tonsillar catarrh, acute catarrhal tonsillitis, follicular tonsillitis, or caseous tonsillitis, by Bouchut. Here we deal, pathologically, with an inflammation of the membrane lining the crypts of the tonsils—an ordinary affection, one met with in every-day practice, presenting to the eye the familiar appearance of enlarged, brightly reddened, and vascular tonsils, encroaching materially upon the faucial opening, perhaps occluding it, their crypts blocked up by a thickened, cheesy, and opaque secretion, and appearing upon the surface of the tonsil as disseminated spots of a white or yellow color. Add to these appearances a cutting soreness on deglutition, marked constitutional disturbance and prostration, with elevation of temperature and short duration, and the picture is complete. I have drawn it mainly to call your attention to some of the difficulties in the way of diagnosis which may meet us, in such cases, at the very outset.

The commonest mistake made is in terming the affection an "ulcerated sore throat," or an "ulceration of the tonsils;" and the collections of morbid secretion at the mouths of the crypts resembling, as closely as they do, little ulcerations, the mistake is perhaps a natural one. The term certainly has taken a strong hold upon the laity, and I may perhaps justly add, the profession, if we may judge from the frequency with which we hear of "ulcerated sore throats."

As a matter of fact, true ulceration of the tonsil is extremely rare, except in syphilis; and recognizing this fact, we are in a position, without hesitation, in the vast majority of cases of so-called "ulcerated throats," to pronounce, even without examination, in favor of a simple "catarrhal tonsillitis;" if we except the "herpetic tonsillitis" of recent French writers—an affection in which the tonsil is more or less covered with small vesicles, either isolated here and there, or in groups, with turbid contents and surrounded by zones of inflammation. Soon the vesicles rupture, leaving small excoriations—the so-called "ulcers." There can be no doubt as to the nature of the diagnosis, when, as occurs in many cases, a herpetic eruption occupies the corners of the mouth at the same time, or the inner surface of the lips, cheeks, or tongue.

The liability of confounding the milder pharyngeal manifestations of diphtheria—the "catarrhal diphtheritis" of Oertel—with the affection of which we are speaking is not to be overlooked; and that the danger is a real one, and one that needs to be provided for, is, I think, proven by the prevalence of—wrongly so-called—"diphtheritic sore throats." May I trespass upon your good-nature for one moment, while I allude to the, in many points, striking physical similarity of the two affections?

Have you not often seen, in these cases of follicular tonsillitis, an aggregation of the grayish-white pultaceous masses which block up the mouths of the diseased and occluded crypts to such an extent that not only is an apparent, but a real pseudo-membrane formed—one thickened by the products of cellular growth and decay (fungi and bacteria), and rendered coherent by the inflammatory hyperplasia?

A membrane which may occupy only part of the tonsillar surface appears here and there in patches, or, more rarely, still not infrequently, cover them entirely. The appearance is not an unusual one, and the attendant constitutional disturbance well known. Compare both with the description given by Oertel of the physical appearances in "catarrhal diphtheritis;" the results are interesting and instructive.

He tells us that the first thing noticed in the inspection of the mouth and fauces is "a vivid red color and moderate swelling of a part of the mucous membrane, while the rest of it appears perfectly normal. Frequently only one tonsil and the adjoining arch of the soft palate are attacked. The submucous tissue usually swells but little, and the same is true of the glands and tissues lying still deeper, so that while the enlarged tonsil may project somewhat into the isthmus, its volume is not increased, as is the case in parenchymatous inflammation. When this simple inflammatory process has continued for a short time—perhaps only a few hours—small grayish-white or whitish-yellow spots appear, arranged in a few groups, either separated from each other by a narrow space, or lying close together, sometimes even merging one into the other."

In the greater number of cases belonging to this class, the exudation is confined to one or the other tonsil, and only in rare instances gives rise to marked constitutional disturbance.

Oertel acknowledges, then, that the catarrhal form of diphtheria is generally recognized with difficulty, because of its apparently insignificant symptoms, and that other diseases, notably catarrhal anginæ, are frequently mistaken for it.

Appreciating, the danger of confounding the two affections, the differential diagnosis may be made by the circumspect weighing of all the diagnostic

points—in one case danger of infection, in the other none—by a careful review of all the variations, in the general and subjective symptoms, especially a close ocular inspection, when the membrane will be seen in one case to be adherent to and upon, the surface of the tonsil, in the other non-adherent and made up of the yellowish, sticky mass which issues from the follicles. Again, the appearance of the parts when the exudation is removed, in the one case, with a slightly abraided surface beneath it; in the other, the mouths of the open follicles, into which the probe can be passed. *Finally*, a thorough physical examination, and a microscopical investigation as to the true nature of the membranous patches, if it be deemed necessary. But, even with this care, in sporadic cases a definite distinction is often extraordinarily difficult.

If this great similarity that I have tried to show exists between the two affections, will it not explain the wonderfully good results obtained by some practitioners in their treatment of diphtheria, and the brilliant statistics of cure which are from time to time given us?

Having raised this interesting, and, at the same time, practical point, I leave it for your discussion.

The infective nature of even the milder forms of diphtheritis has been one of the strongest and most reliable points, in its differentiation from such tonsillar affections as resemble it. But, that even this comforting diagnostic refuge is to-day denied us, the recent description, in the English journals, of an epidemic form of *communicable sore throat*, affecting the tonsils alone, will show.

Fox, whose opportunities for becoming acquainted with true diphtheria have been large, has summarized the principal facts brought out by his study of this "spreading quinsy," as it has been called. He tells us that it consists essentially of an inflammation of the tonsils, which extends more or less into the pharynx, and sometimes to the neighboring submaxillary and other cervical glands; that, although yellowish spots are sometimes seen on the tonsils from an accumulation of mucus in the follicles, no ash-gray, tough, leathery membrane (characteristic of true diphtheria) is *ever* seen during the course of the disease; that the individuals affected present an anæmic appearance, and that the disease is generally communicated from one to another through the medium of schools, etc. Unlike diphtheria, it is but seldom *fatal*, unless those who suffer from it have long been exposed to most unwholesome conditions. It is never followed by paralysis of sensation or motion, as diphtheria often is.

It is not accompanied by albuminuria; the pulse is full, as is noticed in cases of acute quinsy; whereas in true diphtheria it is small and feeble, indicating great prostration. It may prevail in a district where no true diphtheria is known.

The average duration of the disease is about ten days; and *finally*, it is essentially a filth disease, being always associated with some organic impurity of air or water. Overcrowding, saturation of soil around dwellings with slop-water, and employment of bad water for drinking purposes, are the most common insanitary conditions found in connection with infected houses.

The only points of difference, then, you will notice, between the "spreading quinsy," as it was first called by Clarke, and the ordinary "catarrhal tonsillitis," are that it is *communicable*, that it is *accompanied* by a certain amount of anæmia and depression, and that the *mortality* from it is probably slightly greater. Between it and "catarrhal diphtheritis" how narrow is the diagnostic line of demarcation!

I am not aware that such epidemics as are described as occurring in England, by Fox, Vacher, O'Connor, Thorne, Bird, and others, have occurred in our own country; but the possibility suggests itself to me that some of our milder epidemics of diphtheritis may, in reality, be but the disease described by them. The point is a new one, and will bear further investigation.

Who will not recognize the picture of the next affection to which I shall ask your attention? It is not a recent one; Hippocrates has described it. It is easily diagnosed: an inflamed, sensitive, discolored, swollen, and irregular tonsil; a relaxed and œdematous uvula; inflammation and tumefaction of the palatine folds; an angry-looking tumor, protruding far into the mouth and pharynx. A disease about the progress and prognosis of which there exists but little difference of opinion, the evils of acute abscess of the tonsil, be it parenchymatous or retro-tonsillar, are not restricted to uncertain appearances and to slight symptoms, nor are the sufferings and dangers immaterial.

A patient, passing his days and nights in misery, feverish, restless and apprehensive, prostrated to a degree out of all proportion to the severity of the local lesion, with intense pain and local distress, unable to open the jaws without effort, unable to swallow without fear and regurgitation; a loaded, creamy, and swollen tongue; foul breath, salivation, muffled articulation and impeded respiration; cold perspiration, pallid surface, anxious expression of countenance, and a mental depression greatly increased by want of sleep, and occasionally resulting in delirious wandering. To the practised observer, this description, incomplete as it is, will tell the tale; he will probably have arrived at his diagnosis on hearing and seeing the patient's attempts to describe his symptoms.

Is it necessary for me to allude to the differential diagnosis? Cannot diphtheritis, follicular, or phlegmonous tonsillitis, syphilis and cancer, be readily eliminated? If *not*, my picture has been but poorly drawn. Neither is it requisite, at this time and in this place, that I should enter into the pathology of tonsillar abscess further than I have done, nor dwell upon its symptomatology. *Other* and more practical questions await us. From among these I have selected the ones of predisposition, preventive and direct treatment, and finally, its dangers, for your consideration.

The best and most recent writers are in accord in assigning to the diarthrous or arthritic diathesis a strong predisposing element in the production of single or recurrent attacks of quinsy. Browne tells us that there need not necessarily be, though there often is, corroborative evidence either in the family or personal history of the patient; and the fact *stands*, that the disease is most prevalent at those periods of the year and under those atmospheric conditions which are most favorable to rheumatic exacerbations. The widespread use of guaiacum as a specific is probably based upon, and certainly lends color to the view. If it be *true*, an important point is gained. Recurrent attacks each year, or often at shorter intervals, indicate specially, and prominently urge, the importance of constitutional treatment, rather than simple attention to the local evil.

A strumous constitution has been advanced by certain authorities as a predisposing cause—a diathesis which renders the patient liable to inflammatory attacks similar to those frequently seen in the lymphatic glands. Browne holds, however, that this view always requires the qualifying admission that in

tonsillitis exposure to cold is an exciting cause, whereas catarrh plays *no* important part in the production of ordinary strumous glandular affections. As a rule, then, the affection will be found to be associated with some disordered state of health, predisposing and rendering the tonsils susceptible to cold, or due to some constitutional disturbance or diathesis. The therapeutical deduction is obvious.

I have already stated that a patient who has once suffered from quinsy is most liable to suffer again. One attack, unfortunately, purchases *no immunity*, and the question naturally arises as to what preventive treatment should be adopted. The question, I believe, can be readily answered. If there is chronic inflammation and enlargement of the tonsils, excision should be performed. In cases where the tonsil, though diseased, is too small for excision, except on occurrence of acute inflammation, amputate at that time. This proceeding may seem barbarous, but it is in reality merciful. The disease is at once cut short, abscesses that may have formed are removed or laid open, and the chance of further recurrence is almost certainly avoided. I say *almost*, for, unfortunately, we are obliged to confess to the anxious patient that recurrent attacks may, it is true, but rarely, occur in the stump of the tonsil, or in the tissues in its immediate neighborhood. As a contra-indication, it is only fair to state that Hamilton has seen the latter operation terminate fatally in a child, from an extension of the inflammation to the larynx. Such cases must, however, be exceedingly rare.

No treatment, local or general, with which I am acquainted, will with certainty prevent recurrence; but both, with avoidance of exposure, attention in matters of diet, climate and hygiene, care on the part of the patient, and the surgical means just indicated, will do much to accomplish this desirable end.

I approach the comprehensive subject of the direct treatment of the attack with considerable misgiving as to my ability to handle it within the restricted limits of this paper. So much has been written, so varied are the views, and so strenuously are they upheld as to the proper remedial means; so highly are some remedies vaunted, so deeply are others condemned; so firmly rooted are the prejudices of some, and wavering the opinions of others, as to what is best for the patient and his disease, that I can hardly attempt even a fair summary of them, and must, therefore, at the risk of laying myself open to the charge of dogmatism, record my personal views and preferences, offering them in a candid spirit for your criticism. To prove my assertion that general mistiness and vagueness exists in many quarters as to the treatment of quinsy, allow me to recall to your recollection the reports published some little time since in the London *Practitioner*, in answer to questions as to the treatment of quinsy, addressed to physicians throughout, I believe, the civilized world. My quotations will be short. To the circular letter 112 replies were received; among these was one coming from Norway, and later are eight from the United States.

The very first question, as to what drugs the person addressed generally prescribed in the disease, demonstrated that the treatment was far from uniform. The widespread belief in the efficacy of guaiacum in tonsillitis was evinced by its having the largest number of supporters—namely, 36. Next followed chlorate of potash, with 30—11 of whom prescribed it in combination with nitrate of potash, and 8 with perchloride of iron. Aconite was third on the list, with 27 supporters, two of whom gave it with belladonna. These three, then, are proven to be the chief remedies in use, being given in 83 per cent. of the whole returns, or by 93 out of the 112 who replied.

Next, but at some distance, came saline purgatives, which found favor with 19; then saline diaphoretics, advocated by 11 practitioners. After these came quinine, used by 6, while 4 more gave it with iron. With 5 gentlemen the sulphate of magnesia, with tartarized antimony, formed the favorite measure. With others, mercury with belladonna and the sulphide of calcium, was prescribed. *Finally*, hydrochloric acid with cinchona, sulphate of magnesia with sulphate of iron, actea racemosa, Dover's powder, carbonate of baryta and opium, belladonna and chloride of barium, sesquicarbonate of ammonia, and last, and perhaps not least, mercury with turpentine.

Will it be improper for me to add to "this goodly array of weapons with which to battle the disease," the Chinese treatment of the affection. It renders complete the subject. The remedy is a soft stone; it is expensive, being worth twenty times its weight in silver; a dose of twenty to thirty grains of this in powder is said to be wonderfully efficacious. The story goes, that when a monkey is wounded, the animal, from natural instinct, picks out the proper medicinal herbs, masticates them, and applies them to the wound, so that successive layers are in this way laid on so as to form a mass. In time the wound heals, and the lump of dried herbs falls off. It is then picked up, found to possess peculiar virtues, and is used as above. As to its vaunted powers, I am in no more of a position to judge than of many of the remedies of which I have just spoken.

The same diversity of practice among medical men is well seen in the answers given to the question as to the resort to surgical interference. *Scarification*, to arrest the advancing tonsillitis, had 21 supporters, out of the 112, who preferred it to any other form of local treatment. With some the practice was deprecated. As to the opening of the abscess, it found 62 advocates, of whom 4 resorted to it as soon as possible; while 13 stated that they almost *never* used the knife. In no less than 17 answers, it is stated that it is *never* required, while 4 asserted that they had never seen an abscess form since they adopted the guaiacum treatment (fortunate individuals whose success is certainly to be envied!). *Finally*, curiously enough, in the eight answers received from the United States, guaiacum was never mentioned in any form; the favorite remedy was quinine.

My own view, in which I am sure many will coincide, is that an abscess of the tonsil, when its development is once assured, should be treated on exactly the same principles as an abscess in any other part of the body. It is at best doubtful whether any treatment can effectually *abort* the inception of the disease; its course can, however, be shortened. Nitrate of silver and guaiacum are perhaps the favorite abortive means which are to-day used. But is their efficacy demonstrated? The use of silver is certainly attended with one disadvantage—it produces much local discomfort; leaves a most nauseous taste in the mouth; gives rise to constant hawking and spitting, until the superficial epithelial sloughs occasioned by its application are released or removed from the inflamed membrane. With Durham, I have never seen any beneficial, or even satisfactory results, follow its use. Guaiacum may be of value, in the *very* early stages, in producing resolution. This much I am willing to admit—not from personal experience, but from the weight of authority; but when symptoms

of suppuration are manifest, it is *worse* than *useless*. Treatment, then, apart from constitutional remedies or requirements, should be based upon the principles of constant heat, moisture, and mild counter-irritation. Locally, the frequent inhalation of *steam*, medicated or not, and from any form of apparatus most convenient, just as frequently as the strength and feelings of the patient will allow; the frequent *spraying* of the throat, always grateful to the patient, with warm water alone, or slightly aromatically medicated with cologne water, and hot applications made with spongio-piline, externally over the affected tonsil, and constantly renewed, are all measures of decided comfort and great utility.

I am not sure that *medicated* sprays (the best way of making applications) other than warm ones of glycerine, of carbolic acid (1—40—60), or salicylic acid 1 to 100, are of service. Gargles, stimulating, astringent, or indeed of any description, are not only *useless*, but irritating, as their proper use entails too much pain, and the fatigue they cause the patient far more than counterbalances any good that they do. The patient may hold warm solutions of carbolic acid, borax, etc., in water and glycerine, or even simple warm water, in the mouth from time to time, and *without efforts* at gargling, constantly bathe the tonsils by throwing the head backward. Externally, severe counter irritation, leeching, and other depletive measures, are to be *condemned*. The disorder is one which calls much upon the strength and vital powers, and it seems to me that it behooves us to husband the forces rather than diminish them by heroic treatment.

The difficulty in swallowing being great, the less the patient is "pestered with physic, the more comfortable will be his day." A time-honored custom leads us to believe that an emetic will render efficient service early in the attack. A non-depressant should, to say the least, be selected; a saline laxative can do no harm, followed, while the fever and pulse are high, by aconite, perhaps in combination with, if the indications exist, morphine, tartar emetic, or guaiacum: as the case then progresses, stimulants and tonics are required in turn.

I shall now be asked whether I favor scarification and early surgical interference with the abscess.

Every sensible practitioner studies the feelings of his patient; every good surgeon avoids the uncertain or unnecessary use of the knife; but so marked is the suffering, if the tonsils be much swollen—so great is the relief if they be efficiently scarified—that to my mind no doubt can exist as to the propriety of the operation. It is not very painful, sometimes comparatively painless, and the relief that it affords to existing pain and tension is often immediate. Cohen holds that the facilitated circulation in the parts promotes the prompt resolution of the inflammatory process. The incisions certainly sometimes open abscesses in the interior of the tonsil, the existence of which, though conjectured, could not have otherwise been determined, and in all cases open up a path for the escape of matter without waiting for the slow process of nature.

Equally clear, I hold, is the duty of the surgeon when his finger—and I know of no occasion in the treatment of throat affections where a "tactus eruditus" is more requisite—has told him that suppuration is already evident. There can be no doubt as to the propriety of incising the abscess. The surgical principle involved holds good here as elsewhere in the body, and the abscess once incised and its contents discharged, recovery is prompt.

In either of these little operations the surgeon will remember the requisite precautions when any pointed or cutting instrument is used in the region of the tonsil. I need not dwell upon them.

In the treatment of all cases of quinsy there must be a certain amount of anxiety in view of the serious complications possible (but, fortunately, not probable), and therefore some reservation in our prognosis is necessary. Cases of death from the disease have been reported. According to the mortality returns of England and Wales, 400 persons die annually from the effects of it; but this surprisingly large percentage is probably due to errors in diagnosis, or to an association of the affection with more serious diseases, especially exanthematous conditions. Very rarely, as in young children, death might occur from inanition. Browne has seen a case of quinsy in a child of ten, but the affection rarely develops before puberty. If both tonsils are affected at one and the same time, as is occasionally seen, the case is a *serious* one, and may terminate fatally by suffocation if respiration is not relieved by excision of the glands or the performance of tracheotomy. Such an instance is reported in the *Lancet* for 1875. Porter tells of a case of this kind in which a soldier, unable to procure immediate assistance, passed a narrow tin tube between the swollen glands and kept it from slipping down his throat by a string, one end of which he tied to his teeth. Tolerating this rude apparatus for some hours, he reached a surgeon, who found it firmly grasped by the opposing tonsils. Free use of the bistoury reduced the tumefaction, when the tube was removed and the patient recovered. I myself have been called from bed to relieve the urgent dyspnœa caused by swollen tonsils blocking up the pharynx of a child, and have done so by at once excising both. Laveran gives us the details of a case which he lost through an extension of the inflammatory process to the larynx, with œdema of the glottis. In a like instance, Puech saved a patient by a tracheotomy, and others are upon record. Among the rarer complications, cases of suffocation from the sudden breaking of the abscess and discharge of its contents during sleep, into the larynx and trachea (Stokes, Littlejohn, Watson, and Wagner), ulceration into the maxillary or carotid artery, with fatal hemorrhage (Norton, Ehrmann), and, finally, paralysis of the soft palate and contiguous parts following tonsillitis (Putnam, Hardy), and death from severe cerebral disturbance, to which the autopsy gave no clew (Wagner), will all be found in the literature of the affection. Fortunately, they ar ealtogether exceptional. It has probably been vouchsafed to but few of us, if any, to see them. The usual history of the complaint is that, directly the abscess has been opened or has broken, convalescence is perfect and speedy, the attack seldom lasting more than a week, except in those, for the patient, unfortunate cases in which numerous small and disseminated abscesses occupy the tonsil, or where one tonsil, having been affected and the attack having terminated by resolution or discharge of the abscess, the opposite gland, within a day or two, is attacked and proceeds the whole length of suppuration. The illness may, in such instances, extend to two or even three weeks.

I now return, for one moment, to our original classification of tonsillar inflammations, to say a word in relation to peri-tonsillitis and its treatment, as well as that of follicular inflammation. The former disease is well known to us all. It is a common affection, invariably acute, and rapidly runs its course

with distinctive appearances. We see it usually in front of the tonsil; its symptomatology, which is at best but slight, and its course, are too well known to you for me to dwell upon. The practical point is, *how best to treat it.*

Nothing will give you more satisfaction, greater relief to your patient, nor more quickly cause a resolution of the inflammation in either of the two affections named—if your experience coincides with mine—than the hourly inhalation of steam as hot as can be comfortably borne, associated with the use of a gargle of chloride of zinc, some two or three grains to the ounce. I purposely omit the mention of all other local remedies. Constitutional indications are of course to be met, as I believe, from experience, in the efficacy of those proposed, and feel sure that your experience will corroborate my endorsement.

Let me digress here for one moment, to say a practical word in relation to the use of gargles. The time-honored institution is not always of use—sometimes productive of absolute harm—and in probably a majority of cases gargling is an act incompletely, and therefore uselessly, performed. Is this not excuse sufficient for bringing so apparently trivial a subject before you?

I would suggest that to use a gargle three or four times daily, as is usually prescribed, is insufficient; and to use a large quantity, and for several minutes together, is not only *unnecessary*, but often *irritating*. A gargle should be used—proper indications existing in a given case—in quantity not more than a teaspoonful at a time, and not less than one dozen times a day.

Cohen tells us that the usual method of retaining a quantity of fluid in the mouth and keeping it in motion, between the base of the tongue and palate, by repeatedly forcing an expiratory current of air through it, while the base of the tongue is elevated so as to nearly touch the palate, is not only a *painful muscular exercise* in sore throat, but is *inefficient* in bringing the fluid in contact with anything else than the *palate* and root of the *tongue*. In order to reach the pharynx, the fluid must be submitted to the action of the constrictor muscles (often an impossibility with certain people), but be released without completing the last phase of the act of deglutition; a partial act of swallowing being made, therefore, and frequently repeated—a practice which is often difficult to acquire, and which is also, as I have said, painful in sore throat. A much better and less painful procedure is to bring the fluid in contact with the inflamed parts, by letting it flow upon them by gravity, as the head is turned to one side, backward or forward, as the case may be, so as to wash the various parts or portions of the surface in succession.

With this hint I take leave of this portion of my subject.

Moderate hypertrophy of the tonsils is so common an affection among children and even adults, so well understood are its ordinary subjective symptoms, and so easy of detection its physical evidences, so unimportant its results in a certain proportion of cases, and so little do many patients complain of pain or even discomfort, that it is, perhaps, too often lightly regarded, and passed by without serious thought as to probable or possible consequences, by the general practitioner. He ascribes the functional disturbances caused by their presence to other causes, or, more commonly, discouraged by his attempts at ineffectual local or general medication, undecided as to the disputed questions of causation and pathology, he pays but little regard to their active treatment. This, in many respects, unfortunate view, is strengthened by an idea—common among the laity—that the affection is one that will continue, at best, but a few months or years, and that the patient, if a child, will, as it is expressed, "grow to the tonsils." With such an idea they cannot see the necessity or utility of topical remedies, and are not willing to use more than the mildest placebos. The well-read physician, on the contrary, *should* appreciate how important are the pernicious effects of hyperplastic tonsils upon the general health, in the more extreme cases. He has, in his every-day practice, ample opportunity of witnessing the evil consequences which spring from their prolonged presence; of appreciating the importance to the physical welfare; of the conditions and results to which they give rise; and *should*, therefore, lend his powerful influence in deprecating this apathy and inactivity.

I propose to do my share in this good work tonight, by calling attention specially to these unfortunate but preventable results, as met with in the more extreme, but still not unusual cases; not forgetting, however, those of less importance, as far as the sequelæ go, in order that both classes, with their therapeutical indications, may be put fairly before you for discussion—the indications then agreed upon, to notice briefly the vexed question of surgical interference.

If a case presents itself of comparatively recent standing, the hypertrophy moderate and the tumor of soft and elastic consistence, with but slight symptoms, it cannot be questioned that constitutional measures, associated with local applications, will often eventuate in partial resorption. How otherwise can we account for the fact that the affection is comparatively rare after puberty, while exceedingly common in childhood? We certainly cannot imagine that all, or even a large proportion of the children so cured, have been operated upon for the relief of the malady. And even if this desirable result of absorption be not fully attained, success in arresting the progress of the growth so often crowns persevering effort, that the task is undertaken by both parent and physician with confidence, and the slight hypertrophy which remains, being stationary, offers no reason which makes it desirable to interfere further with it. Nutritious diet, then, with careful attention to general hygienic measures, the administration of oil, vegetable and mineral tonics, in depraved conditions, with remedies calculated to promote absorption of the hypertrophied tissue, if the general health be up to the normal standard, may be prescribed with safety and taken with evident benefit. Local applications of silver, copper, iron, iodide of zinc, tincture of iodine, and the like, may be entrusted to the parent or to the nurse, and frequent compression of the gland, as recommended by Quinart, "massage of the tonsil," may, finally, assist the process of absorption. The above cases, if well chosen, certainly present a fair chance of success by the combined treatment; but how greatly modified must this statement become when the tonsils are *old*, much *enlarged*, and thoroughly indurated; of how much more serious import are the sequelæ to which they give rise; of how much more pressing importance the question of treatment.

Yeardsley, Shaw, Robinson, and others have clearly shown us the results which spring from the presence of such tonsils. The pultaceous secretion which blocks up the diseased follicles that honeycomb the hypertrophied glands, if long retained, becomes putrescent. The *consequences* are *apparent*. The air which the little patient breathes becomes tainted in

its passage to the lungs; the patient *lives* in an impure atmosphere. And, again, "the alimentary bolus, though lubrified in its passage through the buccopharyngeal opening, carries with it a quantity of morbid secretion, which rapidly sets up dyspeptic trouble, and, absorbed with the circulation, leads finally to unhealthy nutrition."

If the tonsils enlarge, as they commonly do, toward the median line, the faucial opening is often most markedly reduced in size; so much so in certain instances that mechanical dyspnœa is no unimportant symptom. Shaw, in the case of a child of three years, was obliged to perform a tracheotomy to save life. In others, and when the hypertrophy is exaggerated in this direction, deglutition is a fatiguing and occasionally painful process, though this pain seems, in many cases, to depend rather upon soreness in occasional attacks of inflammation, to which such tonsils are very subject, rather than to mere alteration in shape and size of the glands themselves.

If the enlargement takes place downward, it may press upon the larynx and even prevent phonation. Such a case is reported by Thompson, and Cohen has known a tonsil to press the epiglottis down and to one side in such a manner as to prevent deglutition of solids, and give rise to suffocative attacks.

If in the upward direction, more or less obstruction of the posterior nares, and perhaps compression of the Eustachian orifices, preventing the renewal of the air in the middle ear, are but natural results, and hence the noisy and laborious oral respiration, especially during sleep, and the "throat deafness;" while, on account of the obstruction to free motion of the velum, and the mechanical obstacle to the emission of sound, the voice acquires that characteristic nasal and muffled *timbre*, almost diagnostic of the affection the consonants l and r being specially difficult the so-called *Paralysis labialis*.

I am prepared to admit that different opinions are entertained in respect to this "throat deafness." We certainly see constantly every conceivable variety of tonsil, both in extent and direction of enlargement, unaccompanied by deafness. Verrier, indeed, says that this very deafness can be caused by their ablation. Nor does the mechanical explanation that the enlarged tonsil blocks up the Eustachian tube seem to be always true, in fact. Holmes holds that the deafness in these cases is due rather to chronic thickening affecting the mucous membrane of the fauces near the enlarged tonsils than to the mere change in shape and size of these glands themselves; and in this view he is upheld by Hinton, Harvey, Forster, Pollock, and others.

All of the phenomena then, which I have described, may be present in adults as well as children, but several recent writers, notably Robinson, have shown us that there are *others* which relate almost solely to children—namely, "those which attach themselves naturally to arrest of development." A well-known physiological law, the latter tells us, is expressed in the following terms: Whenever an organ of the body, during its period of growth, is thrown into disuse or cut off completely from its normal function by some mechanical obstacle, *deformation* and *arrest* of *development*, followed by *atrophy*, are natural sequelæ. The application of the law follows. Owing to the passage of a less quantity of air through the nasal and oral passages in the condition under consideration, a diminished volume also enters the larynx and lungs. What is the result? The nasal passages do not increase in capacity proportionately with the growth of the child, the alæ of the nostrils sink in, and this lack of growth affects, in an equal degree, the palatine arch. The alveolar process of the upper jaw is small and the teeth crowded. Consequently the olfactive and gustatory senses are restricted.

Still further, taking into view the great flexibility of the walls of the chest in children, it may be understood how they should be subject to imperfect expansion, with resulting insufficient supply of oxygen and imperfect accomplishment of the chemical blood changes, which take place in the lungs when the air is prevented by the above causes from fully distending these organs. In the act of inspiration, two distinct operations are performed—*first*, to create a tendency for a vacuum the thorax is expanded; *next*, the weight of the atmosphere causes air to enter the lungs. By the free admission of that air into the interior, a balance is established between the pressure of the atmosphere on the outside and that on the inside of the chest. Consequently, though the parietes may be thin and pliant, their movements can be performed with perfect facility.

But quite a different state may be expected. Shaw tells us when the expansion of the chest is unaccompanied with a corresponding dilatation of the lungs, take, for example, a case of hypertrophied tonsils, or one in which the larynx is closed, so as to impede the entrance of air; it is then obvious that if the thoracic walls *could* be expanded there would be nothing to counterbalance the weight of the atmosphere without. In such cases the chest is *incapable* of being expanded, or it is expanded *imperfectly*. To the best of their ability, the intercostal and external accessory layer of respiratory muscles elevate and widen the area included within the sphere of the ribs. The diaphragm also acts on the free margin of the chest, downward and concentrically, to increase the vertical diameter, *but* the pressure of the atmosphere interferes with their effect, and the pressure from without tells mostly upon the weakest parts of the compages. These are, unquestionably, situated in the line of junction of the costal cartilages with the ends of the ribs. Accordingly it is there that the chest is principally *indented*, and this indentation leads to the sternum being abnormally protuberant—in other words, to "pectus carinatum."

If a child, then, suffer from enlargement of the tonsils, may not the encroachment of these glands, upon the calibre of the air-tube, diminish it to such a degree that the air will not only enter with difficulty, but fill the lungs incompletely? and, is it not at least supposable, in such an instance, that the long continuance of the dyspnœa thus produced will, perhaps, imperceptibly, eventually lead to the chest becoming of the "pigeon-breast" shape? Dupuytren, Coulson, and Warren, support the theory, and Shaw, Pitha, and Forster, report such cases. On the other hand, Holmes asserts that deformity of the chest is *not* connected with hypertrophy of the tonsils more frequently than the known occurrence of both pigeon-breast and enlarged tonsils in weakly children would render probable.

Be the cause what it may, we do not need competent authority to tell us that the physical development and proper growth of children, thus affected, is seriously impeded; that their nutrition languishes and their muscular energy and activity are markedly diminished—the fact is self-evident.

Shall I add to this catalogue of evils the *lesser* ones, the half-open mouth of the patient, his noisy breathing and stupid appearance, his liability from an extension of the catarrhal process to inflamma-

tions of the larynx and nares, or the *greater*, which exist in the influence, that these hypertrophied masses upon the lateral walls of the pharynx exert by their close relations and pressure upon the large nerve-trunks of the neck? May we not have from this latter cause "that perversion of nerve-force in, or that changed condition of circulation about the pneumogastric nerves," which shall produce, as a result, nightmare, restless and broken sleep, with asthmatic difficulty of breathing, as shown by Bert and Traube, and even spasmodic cough, through their morbid influence upon the muscular layer of the bronchial tubes? Porter has recently reported two such instances in which the tonsil was, beyond question, the cause. And still further, is this influence confined to this portion *alone* of the air-passages? May not either spasm or cough, produced after this manner, also affect the larynx? Does not, moreover, the same cause hold good and true in regard to these enlargements exerting more or less pressure upon the large blood-vessels of the neck, thus imposing an obstacle to the ready flow of blood to the brain, and to its circulation in that organ?

I have, within the past year, excised the greatly hypertrophied tonsils of a child, eight years old, one of whose most marked symptoms was severe and distressing sick-headaches, without appreciable constitutional cause, coming on every three to four weeks, and lasting some three days. For three years they had thus been constant, and were increasing in severity with successive attacks. The removal of the tonsils caused them to disappear at once, and for nearly a year there has been no return. Cannot a possible, but even a probable relation be traced between the two conditions?

Explain it as you may, experience teaches us that the results of such compression are diminished nervous energy and retarded physical development.

I offer these interesting points for your consideration, and call your attention to an excellent and suggestive article upon further indications for the operation by Voss.

As to the treatment of the affection, there is, it seems to me, but little room for question. On one side stands the picture that I have drawn of its possible and actual results; on the other, their immediate relief, with speedy and permanent benefit, by a safe, simple, and almost painless operation. Can there be any hesitation in our choice? Is the fact not to-day evident to the minds of all, whose studies and experience fit them to judge, that "hypertrophy of the tonsils" is only to be satisfactorily treated by the one method of *excision?* Do we need to refer to the authority of the ancient teachers to sustain our position. Even before Æteus excision was recommended. The operation which Asclepiades designated under the name homoiotome, cannot, we are told by Velpeau, be any other thing, and finally, has not Celsus also described it in this phrase: *Si ne sic quidem resolvuntur, hamulo excipere et scapello excidere?* I shall be answered that other methods of removal have their advocates. Granted; but has experience shown us that the scarifications eulogized by Asclepiades and Celsus, and in more modern times by Berard and Fabre, the ponderous chain écraseur of Chassaignac, the twisted wire of Maisonneuve, the difficult and dangerous ligature of Siebold, Physick, Chevallier, and Bell; the more modern galvano-cautery; the electrolytic or hypodermic needle; the inadequate and slow action of nitrate of silver; the painful Vienna paste; the London paste, necessarily repeated again and again; caustic potash, with its attendant high inflammation; chromic acid, and the like, all but descendants of the actual cautery used by Mesué, have given us practical or desirable results?

Nothing short of an actual slough can do good, if caustics are used, and no stimulating and incomplete application can offer much hope of acting upon such a structure. E. Wagner candidly states, that after patient, persistent, and regular applications, continued through months, he has never seen a true diminution in size, at most superficial ulcers.

Why, then, waste time, or inflict pain, by having recourse to useless local measures?

It is by no means requisite to remove the *whole* of the hypertrophied mass with the guillotine or tonsil bistoury, but the greater part certainly should be. Hamilton pertinently remarks, that if no good reason can be assigned why the gland *should not* be removed more fairly than is generally recommended, a sufficient reason can be assigned why *it ought to be.* When the whole or two-thirds of the gland is cut away, no more trouble is experienced from this source, but when one-half or one-third is removed, the balance does not generally disappear, and not infrequently it again enlarges. This remark does not agree with the experience of some surgeons who have written upon the subject, and who, believing that if one-third or one-half is cut away the remainder will soon disappear, do not think it necessary to remove more than half at any time. The best rule is to remove all of the tumor that projects beyond the anterior palatine fold, and for a little distance below that point. Its cells are thus well laid open, and what with their becoming emptied, the relief occasioned by the incision through parts chronically inflamed, and the subsequent contraction of the cut surface, by cicatrization, the portion that is left shrinks somewhat, and sinks into the side of the fauces, to give no further trouble to the patient. It is a mistake, however, as has already been alluded to, to count upon *too much* shrinkage. Cases have come under my notice more than once, where, the section made, the patient was told that the tonsil would *now* grow small by a process of cicatrization. *Too often* does the surgeon "lay this flattering unction to his soul," to compensate for an incompletely and unskilfully performed operation The guillotine—but an improvement upon the old kiotome of Desault, made upon the English pattern—will, I believe, answer the best purpose, in the largest number of cases. The double vulcellum and tonsil-bistoury may be rendered necessary by the peculiar configuration or location of the tonsil, or be preferred by some who follow the precepts of our forefathers—Blandin, Amussat, Baudens, and Velpeau—in the case of adults. The details of the method of using either I do not enter into, further than to say, or rather suggest, that in using the knife it is better, as recommended by Louis, but for other reasons, and *contrary* to the advice generally given, to cut from below upward; the large vessels enter the tonsil in its upper part, and are thus cut through last, while the knife passes away from, and not into, the collection of blood, which forms below in the mouth as the section is being made, and avoids wounding the tongue.

Hemorrhage—that *bête noir* of many practitioners—is usually inconsiderable, and soon ceases spontaneously. Hamilton, out of fifty-two operations, had an alarming hemorrhage in three only; Voss, who has had an experience of 347 cases, speaks lightly of its dangers, and Guersant, in more than one thousand children, reckons no more than three cases out of this

number in whom formidable bleeding occurred. If considerable, it is probably due to the careless injury of the tongue or lips, or of the palatine folds, during the operation. This is a common cause and should be borne in mind. Again, by a too deep incision, the rich venous plexus, which lies at the bottom of the tonsillar fossa, may be opened into, as shown by Panas. Cohen holds that hemorrhage is more likely to follow the use of the guillotine, rather than that of the bistoury. My experience has been just the contrary.

Hemorrhage, to an alarming extent, may certainly occur. I, myself, have treated three such cases, and others are upon record where the carotid has been opened, and it has proved fatal—as Ténon, Portal, Burns, Béclard, and Barclay state that they have seen. The careful surgeon will, therefore, be always prepared for the unknown and, perhaps, abnormal distribution of the vascular supply, or for the special diathesis, which gives rise to bleeding.

How often is the physician—be he family practitioner or specialist—asked the question, Will not the patient always have a tender throat, one susceptible to cold and inflammation; one liable to diphtheria? or will the voice not suffer after the removal of the tonsils? And how satisfactory it is to be able to give a most emphatic answer in the negative; to assure the anxious inquirer that, in suitable cases, *nothing* but good can come of the operation.

If I have succeeded in convincing any wavering minds of this fact, or in strengthening the views of others upon this point, my *task is done*. In its execution, I am fully conscious of many sins of both omission and commission. Very much more might be said, for I have treated but a small part of "the thousand ills that flesh is heir to." The suggestions that I have made are tendered with a feeling of good will, and desire to aid in our common work. Would that they were more worthy of your acceptance.

NEGATIVE PRESSURE.

By G. M. GARLAND, M.D.,

PROFESSOR OF DISEASES OF THE EYE IN THE MEDICAL DEPARTMENT UNIVERSITY OF VERMONT.

ACCORDING to Webster, "science is literally knowledge, but more usually denotes a systematic and orderly arrangement of knowledge," and that anything may be *scientific*, it must agree with the rules or principles of science. All expressions, therefore, which are used by recognized authorities, and which contribute to a systematic and orderly arrangement of knowledge, are termed scientific. Among such expressions is the one which heads this article.

Negative Pressure is a term which one encounters constantly in German and French medical books. Among American and English writers it has met with less favor, and has, indeed, at times been exposed to pitiable gaze as an object of ridicule by those who have failed to comprehend its meaning. At first glance, one might be misled to the inference that the term in question denotes a pressure less than zero in amount. Since we are unable, with the mechanical agencies at our command, to produce a complete vacuum, and since it is impossible to conceive of a pressure less than vacuum, it might be deemed absurd to invent a term for that which has no existence, and which can enter into no problem of mechanics. When, however, those who have endeavored to vilify negative pressure, and have denounced its claims to a scientific character, once understand its correct usage, they will discover that they have been demolishing phantoms of their own imagination.

On referring to standard works on physics, we are taught that a force is defined by three factors, viz.: 1. The place or part of body to which it is applied; 2. The direction of its action; 3. Its magnitude. Each of these factors is independent of the others, and is treated by terms appropriate to itself. Now, the direction in which a force acts is that of the motion which it tends to produce, and Ganot* says: "When we are considering several forces acting along the same line, we may indicate their direction by the positive and negative signs." This use of the terms positive and negative is universal in treatises on physics, and it will be immediately obvious, from Ganot's definition of their meaning, that they do not refer in any way to the magnitude of any force. They are simply algebraic expressions to indicate, in a concise, systematic, and orderly manner, the direction in which one force is acting as contrasted with that of some other and opposing force.

Now, pressure is simply one manifestation of force, and therefore we should naturally expect to find the direction of its application expressed in the same formulæ as in the case cited above. That pressure is thus expressed in physics may be learned from the following definition. In speaking of stress, Rankine† says that it is a general term to comprehend various forces which are exerted between contiguous bodies, or parts of bodies, and it is divided into three classes, of which the two following interest us at present:

"1. Thrust, or pressure, is the force which acts between two contiguous bodies, or parts of a body, when each pushes the other from itself.

"2. Pull, or tension, is the force which acts between two contiguous bodies, or parts of a body, when each draws the other toward itself. . . . . In expressing a Thrust and a Pull in parallel direction algebraically, if one is treated as positive, the other must be treated as negative. The choice of the positive or negative sign for either is a matter of convenience. The word '*pressure*,' although, strictly speaking, equivalent to '*thrust*,' is sometimes applied to stress in general; and when this is the case, it is to be understood that thrust is treated as positive."

Once more I emphasize the fact, therefore, that the terms positive and negative, as here used, have no reference to the amount or magnitude of any pressure, but simply indicate the direction of application.

In comparing two forces which are acting in antagonism to each other, Rankine says that thrust is always treated as positive. When, therefore, one of the forces under consideration is the pressure of the atmosphere, as is the case in the various manifestations of the phenomenon of suction, this atmospheric pressure is always designated by the positive sign, because it is always exerted in the direction of thrust. All the other forces, which in a given case are acting in an opposite direction to that of the atmosphere, are considered negative, and the pressure which they exert upon any body, or parts of a body, exposed to their action, is termed Negative Pressure.

In the Medical Record for September 27th, Dr. R. Van Santvoord, of New York, published a criticism upon Negative Pressure in which he shows that he has failed to understand the proper meaning of the

term. He says: "The idea of negative force is absurd. Force is essentially positive." I allow that it would seem absurd, as I have previously said, to speak of a force less in amount than vacuum, but I hardly think that Dr. S. is prepared to denounce all works on physics as absurd because they treat force as positive or negative according to the direction of its action. I am somewhat surprised that Dr. S. allowed himself to be so misled regarding the meaning of the term in question, because, in my introduction to "Pneumono-Dynamics," to which he refers, I declare emphatically that the term Negative Pressure "does not imply anything as to the magnitude or intensity of any force, but simply designates the manner in which that force is applied."

Again Dr. S. says: "To speak of negative pressure instead of atmospheric pressure is exactly equivalent to speaking of *the rising of the sun* when we mean *the rotation of the earth.*" As every one knows, "the active agent in 'suction' is the pressure of the atmosphere outside of a more or less complete vacuum." This definition of suction is very true as far as it goes, but it is unfortunately incomplete in that it ignores other agents equally important with the atmosphere in the phenomenon of suction. When two bodies lie in contact with each other, the atmospheric pressure undoubtedly tends to retain them in that position. No manifestation of suction is possible, however, until an attempt is made to separate these bodies by forces which are antagonistic, or negative, to the atmosphere. Hence, if the atmosphere about a vacuum is *one* active agent in suction, the forces, chemical or mechanical, which create the vacuum are none the less essential. The atmospheric pressure drives up the column of water after the ascending piston, but it is the negative force, generated by the engine outside, which lifts the piston and thereby produces a negative pressure on the surface of the water below the same. In answer to Dr. S., therefore, I fail to see why we should not speak of negative pressure, or why we should speak of atmospheric pressure, when our object is to particularize the influence exerted by those forces which oppose the atmosphere. We can hardly expect to arrive at the satisfactory solution of any problem if we ignore a portion of the factors essential to the same, or if we deprive them of terms appropriate to their clear and orderly expression.

From what has preceded, the working of negative pressure in the function of respiration will be readily understood. With the first breath of life the lungs are placed in a condition of permanent expansion. They are held in apposition to the chest-wall by the internal atmospheric pressure. By virtue of their retractility they are constantly striving to collapse, and are therefore exerting a force in a direction opposite to that of the atmosphere within. Consequently in all German works on thoracic physics, this retractile force of the lungs is called negative, and it is said to exert a negative pressure upon the inner surface of the costal pleura. In a similar manner, during inspiration, the lifting force of the chest-wall is negative to the external atmosphere and exerts a negative pressure upon the lung.

Dr. S. concludes his criticism by the remark: "To call such a phrase 'scientific' is a singularly flagrant abuse of terms."

I have shown that the term Negative Pressure is recognized and employed by authorities on physics, and that it contributes to a systematic and orderly arrangement of knowledge, and these, according to Webster, are the requisites of a scientific term.

Reports of Hospitals.

BELLEVUE HOSPITAL.

Notes of Practice and Peculiarities in Treatment.

LEAD-POISONING—GENERAL PARALYSIS—FACIAL PARALYSIS.

The following case possesses a few points of interest relating to symptomatology:

A male patient, æt. 40, who had been in the habit of drinking a glass of cider drawn from the pipe *early* in the morning, began, in June last, to feel a "weakness coming over his entire system." His occupation was that of a waiter, and he found it difficult to perform his labor. His appetite became poor, he began to lose flesh, he vomited occasionally, he had pains in the bowels, and his bowels became habitually costive. He improved somewhat, returned to his work in July, but in August he was compelled to give up his work entirely because "of a general weakness which was all over me" (him.) When admitted to the hospital he was unable to extend either little finger. He had a well-marked blue line along the margin of the gums. He now has general paralysis, most marked in the arms, which are almost useless, hanging from the shoulders like flails. He has some difficulty in closing his eyes firmly, is unable to wrinkle his brow only to a very limited extent, there is slight fibrillary contractions of the tongue, and a general appearance which indicates paresis of the muscles of the face.

This was the interesting point in the case, for it was undoubtedly one of lead paralysis, and yet, in most text-books, it has been said that one of the characteristic features of the general paralysis produced by lead is that it does *not* affect the facial muscles.

The deltoid muscles were markedly atrophied; the biceps and the triceps were tolerably well preserved. Fibrillary contractions were well-marked in the muscles of the forearm. Phonation and thoracic respiration were also somewhat affected. The muscles of the arm and forearm and hand did not react to the faradic current; but when the galvanic current was applied, *slowly interrupted*, with positive pole over the brachial plexus and the negative pole on the muscles, contractions could be produced. When the positive pole was placed on the muscles, and the negative over the nerve, no reaction took place. Galvanism, therefore, was used to stimulate those muscles which the patient was unable to move, and iodide of potassium was given internally.

A second case of lead-poisoning was seen in which *delirium* was a marked symptom. The blue line was well developed, and the general paralysis was marked. It was supposed that the lead was introduced into the system by drinking ale.

EXOPHTHALMIC GOITRE — GALVANISM — NOTABLE IMPROVEMENT.

A young woman who had exophthalmic goitre, had been under treatment by means of iodide of iron pills, iodide of potassium in syrup of wild-cherry bark, and galvanism. The goitre had diminished considerably in size, and the pulse had been reduced to 74.

DISPLACED HEART SIMULATING ANEURISM.

A note was made of this case chiefly with reference to a physical sign. A female patient, on inspection of the chest, exhibited a distinct circumscribed pulsation on a level with the second rib on the left side, and about two inches and a half from the edge of the sternum. The region around the pulsation was flat on percussion. Aneurism was a snap diagnosis. But on examination it was found that the left side of the chest was, by measurement, two inches smaller than the right; there was flatness on percussion over the entire left chest; bronchial respiration; voice-sounds and vocal fremitus.

The diagnosis was fibrous induration of the lung, with dilatation of bronchial tubes gradually taking place and drawing the heart upward, and producing pleural and pericardial adhesions, so that an impulse was visible at the base as well as at the apex of the organ. The apex was beating in the fourth intercostal space.

ACUTE ARTICULAR RHEUMATISM—ENDOCARDITIS—INABILITY TO RECEIVE SALICYLIC ACID—NON-ALKALINITY OF THE URINE, ALTHOUGH ALKALIES WERE ADMINISTERED FREELY.

A young woman was the subject of acute articular rheumatism, and her case presented certain points sufficiently interesting to be worthy of mention. The local symptoms of the articular affection were prominent, a large number of joints being affected, and then an especially distinct intra-ventricular murmur indicating endocarditis.

The urine had not been made alkaline, although the patient had taken alkalies very freely. Such cases occur occasionally. She was unable to continue the use of salicylic acid because of the unpleasant feelings which it produced in her head—headache and buzzing in the ears. When those symptoms first developed, the acid was stopped and they soon disappeared. The acid was renewed, and the same symptoms returned. The acid was again stopped and the symptoms again disappeared, and that was repeated three times with the same results, when the acid was discontinued entirely. There seemed to be no question that, in this case, salicylic acid was not well borne by the patient.

The patient was nearly convalescent.

ACUTE ARTICULAR RHEUMATISM—PREGNANCY—MISCARRIAGE—ENDOCARDITIS—HIGH TEMPERATURE—RECOVERY.

In connection with the above, mention was made of a case which possessed great interest because of the unusual factors it contained.

A young lady, who had never had articular rheumatism, was seized with the affection in the seventh month of pregnancy. Her temperature rose to 109° F. in the axilla. Premature labor took place, and she was safely and rapidly delivered. Unmistakable evidence of endocarditis also developed.

The treatment for the rheumatism was alkaline—alkalies being used freely until the urine was made alkaline.

For the extreme elevation of temperature, quinine in large doses was given, which was borne very well. Notwithstanding her recent labor, the entire surface of her body was also sponged for a great part of the time with cold water, the cold being used persistently and fully, and by the assistance of those two measures, quinine and cold water, the temperature was reduced, and, perhaps, were the chief means of saving the patient's life.

GOUT NON-HEREDITARY.

A male patient, æt. 36, was suffering from his *third* attack of gout, affecting the great toe joint, occurring at intervals of *four* years, and all the attacks beginning suddenly in the night. No trace of hereditary tendency to the disease could be obtained. He had been accustomed to drink a quart of beer daily for twelve years.

SINGULAR AFFECTION OF THE PENIS.

The phenomena observed in two patients were the following: Short, involuntary jerks of the penis backward, in one case accompanied with excruciating pain; in the other not, until finally in one case the organ was so retracted that it appeared as a mere nub just at the arch of the pubis; in the other case the retraction was not so marked, but the jerking gave the patient great discomfort, although it was not positively painful. In the painful case the repetition of the attacks seemed to have a certain degree of periodicity. It never was, at any one time, a week from the first manifestation of the peculiar phenomenon before the attack was renewed, and would continue for days. The longest interval of rest was five days, and sometimes the patient had one or two terrific attacks daily. In that case, also, there was no assignable cause, except a contracted meatus urinarius. Suspecting that it might depend upon that cause—that it belonged to the neuroses assignable to that condition of the male urethra, the meatus was enlarged by incision to a size corresponding to the remaining portion of the urethral canal, but without effect. A second operation was performed, very free incision was made, and the trouble entirely disappeared.

In the second case, however, there was no pain, the meatus had a full size, admitting 31, and, so far as examination showed, there was no notable abnormal condition of the urethra, except a tenderness in the region of the seminal ducts, and for that he had been injected with a twenty-grain solution of nitrate of silver, five drops being applied by means of an instrument made for the purpose, as near as possible to the portion of the urethral canal into which the ducts empty. He had seminal emissions, and for those, in addition to the local application, he was taking

℞. Ext. fld. ergot..... ʒ ss.
Potass. bromid..... gr. xx.
M.

three times a day.

Both the spermatorrhœa and the peculiar phenomenon relating to the whole penis were improving. In the second case, there was an irritated condition of the rectum, which, it was thought, might have some bearing upon the difficulty relating to the penis.

ACUTE CIRCUMSCRIBED PYO-THORAX—PNEUMO-THORAX.

A patient was seen who gave a history almost identical with one already reported. [See MEDICAL RECORD, November 22d.] It was interesting from the fact that it was a case of acute empyema occurring in a patient who, apparently, was in good health at the beginning of the disease.

A female patient, æt. 39, a laundress, was admitted to the hospital November 13th, and said that she was never ill until three weeks previously; never had a cough, was able to work, etc. She suddenly became

ill in the night, had a chilly feeling, which was succeeded by fever, cough, pain in the left side, and vomiting. The next day she observed that blood was mixed with her sputa. Since that time she had not been able to work, although she had been able to be about her room, but suffered from pain in the side, shortness of breath, and her cough had continued. When admitted, there was evidence, from physical examination, of fluid in the left pleural cavity. An exploratory puncture was made with a needle, but no fluid was obtained. The breath was remarkably fetid; the sputa was muco-purulent, and, upon microscopical examination, was found to contain fibres of elastic connective tissue. This was an interesting fact—namely, the presence of elastic fibres in the sputa so early after the beginning of an acute pulmonary disease occurring in a healthy person. The urine contained no albumen. Since admission her temperature had continued elevated, and she had had two well-marked rigors. Breath constantly fetid. The hypodermic needle was introduced at intervals, but no fluid was obtained from the pleural cavity until the morning of the 25th of November, when a small quantity of pus was obtained that was extremely fetid.

December 2d.—The temperature continues elevated, and the patient has hectic. Breath offensive.

December 3d.—Physical signs still point to the presence of fluid in the left pleural cavity.

December 4th.—The visiting physician thought that a localized pneumo-thorax had been added to the pyo-thorax. It was supposed that perforation of the lung had occurred, but being unable to obtain much pus by aspiration, it was deemed best to wait for further developments.

Physical examination revealed a circumscribed area of flatness on percussion over the lower portion of the left side of the chest posteriorly, and at places within that area there were bronchial respiration and feeble broncophony, and over other parts increased vocal resonance. These signs were regarded as evidence of solidification of lung around the circumscribed empyema.

The succussion sound could not be obtained, nor was there evidence, by percussion, of the presence of air in the pleural cavity; and yet, from the history of the case and the present symptoms relating to the expectoration, it was inferred that perforation of the lung had occurred. [The case mentioned in the former report alluded to was improving, the pulmonary symptoms having, in a great measure, disappeared.]

Pathological condition which gave rise to the symptoms.—The visiting physician gave what seemed to him to be the most probable explanation of the case, and it was, that it began as a small circumscribed pulmonary gangrene, situated near the surface of the lung, which excited a certain amount of pleuritic inflammation and adhesions before much escape of gangrenous matter took place. The chest had not been occupied by general empyema; hence the circumscribed empyema was not a sequel of that condition. It was presumed that the pleurisy was caused by the escape of decomposing lung-tissue, which produced an inflammation suppurative in character.

Indications for treatment.—The patient was not suffering from accumulation of pus in the pleural cavity, most of it being gotten rid of by expectoration. It was recommended to support the system by the use of tonics, good food, and a certain amount of alcohol in the form of wine or malt liquors. There was no indication for free incision through the chest-wall.

Progress of Medical Science.

Notes on the Post-mortem Examination of a Case of Athetosis.—This is the title of a paper by Prof. Sydney Ringer, published in the *Practitioner* for September, 1879. The patient, when twenty-eight years of age, was struck down with right-sided hemiplegia, hemianæsthesia, and unilateral sweating. He subsequently recovered the lost power and sensation on the right side, but the unilateral sweating persisted. As he regained his power, the athetosis developed itself. He died of heart-disease in June, 1878. At the autopsy the brain was examined with great thoroughness. No trace of an occluded vessel could be discovered. Transverse, horizontal sections of the brain were made, but nothing was found abnormal until the lateral ventricles were laid bare, when the posterior part of the left corpus striatum was seen to be depressed and hollowed out; the membrane covering it was thickened. The left optic thalamus was decidedly smaller and flatter than the right. The soft commissure of the third ventricle was gone. Transverse vertical sections were then made through the rest of the brain, and they revealed a cyst one and a half centimetres in width and three centimetres in length, with its long axis in the antero-posterior direction. The cyst lay anteriorly in the corpus striatum—being situated in the posterior half of the lenticular nucleus, just without the inner capsule; behind it lay, outside and rather below the anterior, two-thirds of the optic thalamus; but the posterior portion of the whole left corpus was softened, and the thalamus was washed. The parts posterior to the cyst, and the spinal cord and nerves, presented nothing abnormal. The microscopical examination showed that the whole of the corpus striatum was much damaged, both the intra- and extra-ventricular portions (caudate and lenticular nuclei). Besides much atrophy and slight degeneration of the intra-ventricular portion, about one-fifth of the lenticular ganglion was destroyed, and was occupied by the anterior portion of the cyst. A few of the motor fibres (inner capsule) passing between the caudate and lenticular nuclei, and a greater number of the sensory fibres (outer capsule) passing from the filament, were destroyed. The corpus striatum was the part which suffered most, but the left optic thalamus was also washed, and a small portion of the lower and outer portion of this body was completely destroyed, whilst a considerable portion of the white matter external to the thalamus (sensory fibres of the outer capsule passing from the filament) was destroyed, and the part occupied by the posterior part of the cyst. Dr. Ringer attributes the athetosis in this case, not to the cavity, but to the damaged tissues in its neighborhood, whether in the optic thalamus, or the corpus striatum, or both. An interesting point in the case is the complete recovery from paralysis, both of motion and sensation—although a large hole remained in the most important part of the brain, and the tissues around it continued considerably damaged.

Diphtheria.—Dr. W. Scott Marshall, of Centralia, Ill., is of the opinion that tracheotomy performed early in cases of diphtheritic laryngitis is of great service. He writes that he has never seen a case recover in which the voice was reduced to a whisper. His experience in this respect is not unique.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 27 1879.

THE UNITED STATES MARINE HOSPITAL SERVICE.

THE annual report of the Surgeon-General of the U. S. Marine Hospital Service has recently appeared, and with it the Secretary of the Treasury issues a new Code of Regulations for the control of this bureau. The two documents call attention to a medical organization whose rapid growth and promising future are likely to attract some interest from the profession.

The Marine Hospital Service, organized in 1798, was for many years only an unimportant bureau in the Treasury Department, under the care of clerks alone. With the twenty cents a month assessed from seamen, and with annual appropriations from Congress, it furnished medical relief to sick seamen, but, as a rule, in an extravagant and inefficient manner. Its work as a service had no professional status or scientific value. In 1871, under the direction of Dr. Billings, Dr. Woodworth, Dr. Stewart, and others, it was reorganized and put under the control of medical men. Since then it has been steadily improving in the efficiency of its work and the character of its officers, until now, if we may judge from the figures presented, it bids fair to outrank in some respects the other government services. The two facts pointing to this are: the steady increase in the number of patients treated and medical officers appointed, and the very large number of seamen, amounting to not less than 150,000, who come under the medical care of the service. With this field, which is constantly enlarging, for the medical officers to work in, the profession may expect of them some contributions of value to medical and surgical science.

The statistics given in the Surgeon-General's last report show that 20,922 patients were treated in the year ending June 30, 1879. Only about 15,000 were treated in 1877. The number of medical men in the service is between thirty-five and forty, not including seventeen acting assistant surgeons. These officers are appointed after a severe competitive examination, seventy-eight per cent. of the applicants having in the past year been rejected. This per cent. is somewhat smaller than that of the army, which was in 1878–9 about eighty-six per cent. But it is large enough to show that merit is essential to an appointment in the service. The positions held by the medical officers are those of assistant surgeon, passed assistant, and surgeon. Promotions are made after a certain length of service, and after passing examinations. The pay is, we believe, about the same as that of the army and navy, but, from the character of the service, advancement is more rapid.

The professional work done by this service must necessarily be of a peculiar and somewhat limited character. One-fifth of the patients suffer from chancroid and syphilis, while there is an equal per cent. of malarial diseases and a somewhat smaller proportion of rheumatic cases. Attention to the hygienic surroundings of seamen is naturally a matter of concern, and this as well as questions of quarantine have already engaged the attention of the Surgeon-General. In June last an order was issued directing the medical officers of the service, when called on to do so, to make physical examinations of seamen about to ship. A considerable number of examinations have been made, with the result of finding from five to ten per cent. of those proposing to ship, physically unfit to do so. This has fully justified the undertaking, and it will, as it grows, undoubtedly secure an immense benefit to the seamen and the shipping interests, as well as furnish valuable scientific data.

The work of the Marine Hospital Service has so far been more practical than scientific—not many of its contributions to medical literature having yet, in the latter respect, reached a high standard. Its adoption of the metric system, however, gave a great impetus towards a rational method of measurement, and there have been papers upon venereal diseases, and yellow fever and sanitation, of considerable value. Matters of public health and quarantine have now been relegated to the National Board of Health, but in the history of public, and especially national sanitation, the work of the late Surgeon-General Woodworth will have a prominent place. It will be expected that the question of how to check venereal disease and how to regulate prostitution should receive attention and help from officers who deal with a class that suffers more than any other from its ravages. Such attention has to some extent been given.

It is in these two directions of public sanitation and of the management of venereal disease that the Marine Hospital Service has so far been especially prominent. But it will be strange if, with the field it has before it, and with what is, for statistical purposes, one immense hospital treating 20,000 cases a

year, a wider and higher range is not given to its usefulness.

The publication of a revised code of regulations indicates a stage of more perfect organization and discipline. The general tenor of those regulations is, we believe, somewhat similar to that of the army. They aim to secure stricter discipline and more efficient methods for conducting the work of the service. While they will undoubtedly do this, they appear to be exceedingly elaborate and minute; and, if any criticism were made, it would be that they attempted to pin things down almost too closely. Thus, we can admire the moral elevation which inspired paragraph 93, forbidding all profane swearing among officers and employees; but it has generally happened that attempts to enforce this portion of the decalogue by statute have had in them more of beneficent intention than practical effect.

A new feature is a provision for boards of inquiry and discipline. Before these, delinquents will be brought, tried, and, if necessary, disciplined.

The medical officers have heretofore been embarrassed and hampered in their medical work by the great amount of clerical work which fell upon them. Much of this, it is stated, will be removed under the new regulations.

Under their workings, therefore, which are likely to prove, in general, excellent, with an increasing number of officers, hospitals, and patients, the future work of the Marine Hospital Service will be watched with much interest.

THE LUNACY REFORM MEETING.

The public meeting of citizens to discuss the subject of lunacy reform was held on Dec. 18th, as announced, and was very successful in every way. Speeches were made by Mr. Geo. W. Curtis, Dr. Bellows, Dr. Storrs, and Dr. E. C. Seguin; letters were read from Dr. Willard Parker, Mr. Sewall, and Mr. Frank B. Sanborn and Hon. Dorman B. Eaton. Full reports of these have appeared in the daily press, and we need not go into any details about them now.

The speeches were, in their general character, entirely devoid of personality or inflammatory appeals; but were, nevertheless, extremely earnest and determined in calling for reform. It was shown very clearly that our asylum system is imperfect and behind that of other countries; it was shown, further, that the care of the insane is a branch of public service that, above all others, needs to be kept constantly before the public eye; and it was shown that the State and city are expending immense and continually increasing sums on the insane, without having yet secured adequate provision for them. These facts, without taking into account the more special evils, were found sufficient reason to urge the formation of a Board of Lunacy Commissioners; and the securing such a board was made the particular object of the meeting. At its conclusion, resolutions were adopted recommending to the Legislature the establishment of such a board, and appointing a committee to frame a bill covering that end.

The same committee was authorized to set on foot the organization of a National Association for the Protection of the Insane. Such an association will undoubtedly be of great service, as furnishing a nucleus for further effort, and giving an assurance that the work of reform is not spasmodic, but is placed on a broad and permanent basis.

Much wisdom was shown in the concentration of the efforts of those wishing lunacy reform upon a single object—that of securing a lunacy commission. Such a board we have before advocated as being an essential in reform, and it now appears to be the first and wisest step that can be taken in that direction.

With an efficient Board of Lunacy Commissioners, raised above political influences, and furnished with proper authority, every improvement possible in asylum management can be expected to be brought about in good time.

The tone and management of the meeting showed that wisdom had been gained from the wretched experience of last winter. No petty and personal charges were made, but the demand for reform and for a lunacy board to initiate and perpetuate it was based on the unassailable ground of the helplessness of the insane, the rights of the citizen, and the success of lunacy boards elsewhere.

It is to be hoped that the work begun by this meeting will not be dropped. If placed in energetic and fearless hands, with the impetus public spirit has now given it, we may expect before long to find the care of our insane becoming less of a reproach to medical science, and of an offence to humanity.

THE VENTILATION OF CHURCHES AND THE SPREAD OF CONTAGIOUS DISEASES.

In a recent number of the *New York Freeman's Journal*, its editor publishes an address on State Medicine, delivered by Dr. O'Sullivan before the Medico-legal Society, and comments editorially on those portions referring to church ventilation and the spread of contagious diseases. It is somewhat surprising that the only excuse he offers for the bad ventilation of the Catholic churches is, that there is danger of exposing such worshippers as remain to the draughts from open windows. In order to make the necessary change of air, it is requisite that the churches should be empty at the times referred to between masses. A few moments would be all that is required, while those in waiting could assemble in some adjoining room. It is true that this would involve the expenditure of some time and some extra trouble to the sextons, but in a fresher atmosphere the good people could doubtless pray better. The plan is so simple that many of

the priests of the leading churches are inclined to adopt it.

We speak of the Catholic churches in this connection, because none of the other religious edifices have their audience-rooms occupied by large numbers of people for so many hours at a time.

In the matter of spreading contagion in churches by the attendance of persons who are nursing cases of infectious diseases, our learned friend ventures the opinion that such persons are no more dangerous than physicians. The cases of the nurse and physician are hardly parallel ones in such a connection. The nurse is in constant attendance upon the sick one, is saturated more or less with poisonous emanations, and uses no precautions against the spread of the disease. Such persons, too, are apt to attend mass when the largest numbers are present, in the earlier parts of the day, and when the air is already loaded with impurities. The physician, on the contrary, knowing the dangers of disseminating infection, adopts the precautions which the circumstances make necessary. He does not go directly from the bedside of the sick into a crowded assembly; he stays but a short time by the patient, has the advantage of fresh air as a constant disinfectant, and even changes his clothing when it is necessary. As a matter of fact, considering the chances to the contrary, physicians rarely carry disease, while it is a notorious fact that ordinary nurses and other attendants upon the sick are most active disseminators of poison.

The distinguished editor of the *Evening* advises that there be a little more trust in God, as the safeguard against the dangers of which we speak; but we still believe that there is no harm in "keeping the powder dry" also.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 4, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 7.45 P. M., and the minutes of the last stated meeting were read by the Secretary, DR. H. T. HANKS.

The annual report of the Treasurer was read, and showed a balance in the treasury of $342.03.

The report of the Board of Trustees was read by DR. S. S. PURPLE, and showed a balance of $256.97 in favor of the Academy, and a total valuation of all the property belonging to the Academy of $81,400.

The annual report of the Recording Secretary was read, and showed an increase of 43 in the resident fellowship during the past year.

The report of the Corresponding Secretary was read by DR. JOHN G. ADAMS, and a resumption of the publication of the volume of Transactions was recommended.

The Committee on Library reported, through the Librarian, DR. LAURENCE JOHNSON, recommending a circulating department of the library and an additional reading-room. The recommendations had been adopted by the council. The number of medical journals to be found in the library the coming year is 122. Of that number there are 24 German, 24 French, 12 English, 4 Spanish, 4 Italian, 1 Cuban, and 53 American.

The reading of the annual reports of other committees was dispensed with, and the Academy proceeded to the nomination of officers, after which a paper on

SOME OF THE COMMONER AFFECTIONS OF THE TONSILS, FROM A DIAGNOSTIC AND THERAPEUTIC STANDPOINT,

was read by DR. GEORGE M. LEFFERTS. (Vid. page 601.)

The paper being before the Academy for discussion,

DR. J. H. DOUGLAS referred to one point not mentioned by Dr. Lefferts, and which he thought of considerable importance in studying affections of the tonsils—namely, the situation of the tonsil between the arches of the palate, anterior and posterior, which in the acute stage of inflammation strangulated the gland to a greater or less degree, thus tending to keep it filled with blood, perpetuate the pain, and prolong the disease.

In chronic enlargement of the tonsils the anatomical arrangement and the effect were the same, and in most cases the strangulation was very marked, which was kept up by the catarrhal inflammation.

The practical point was to relieve the catarrhal inflammation in the acute cases, especially affecting the posterior half of the posterior arch and nasal fossa, and that could be done best by injecting those parts forcibly by means of a syringe with a long, curved nozzle, so as to remove the masses of thick mucus which had lodged there. When that was done from four to six times daily, the tumefaction of the tonsil usually at once subsided, the patient was relieved, and was able to fall asleep readily.

In chronic tonsillitis he resorted to the same plan of treatment, together with washing out the crypts of the tonsils with water and keeping them free from accumulations of secretion. When that was done, it was remarkable with what celerity the hypertrophy would disappear, and the treatment followed up from time to time had reduced the largest tonsil he had seen. He did not approve of the use of nitrate of silver, and he now rarely used a knife. With regard to hemorrhage following excision of the tonsils, he thought there would be no difficulty if the coagulum was kept thoroughly removed. He agreed with Dr. Lefferts upon the point that quinsy sore-throat occurred for the most part in those who had an arthritic constitution.

DR. BEVERLEY ROBINSON directed attention to one practical point in the differentiation of follicular tonsillitis from diphtheria. Both were contagious; but he believed that when the membrane fell off in follicular tonsillitis, it *did not reappear*, as was the case in diphtheria, two or three days after falling of the membrane. Albumen also was present in the urine of the diphtheritic patient, while in cases of follicular tonsillitis it was absent.

He agreed with Dr. Lefferts regarding the inefficiency of gargles, the benefits from inhalation, the uses of scarifications, and incisions in the acute affections

of the tonsils. He also corroborated what had been said regarding the evils attending chronic inflammation of the tonsils, and partially agreed with him regarding excision.

He was disposed to believe that follicular or herpetic tonsillar disease had simply a *different localization*, but was the same disease as inflammatory or membranous croup.

Dr. D. B. St. John Roosa remarked that the speaker was not willing to state positively whether the tonsil actually pressed upon the Eustachian tube, thus producing deafness, or not. He believed, however, that an inflamed tonsil never pressed upon the mouth of the Eustachian tube so as to cause deafness; but that the deafness, if present, was coincident, and depended upon inflammation of the mouth or calibre of the tube or tympanic cavity, caused by the same conditions as those which gave rise to the tonsillar affection. He was sorry for the introduction of the term "throat deafness," because it implied that there was a form of deafness dependent upon disease of the throat. In his opinion there was no deafness depending upon disease of the throat, unless the Eustachian tube or the tympanic cavity, as well as the throat, was involved. In acute tonsillitis he thought impairment of hearing very seldom was present, unless there was the history of a catarrhal deafness preceding the acute attack. He believed that we might have never so much swelling of the tonsils, and yet no impairment of hearing. Nevertheless, enlargement of the tonsils became an important factor in the treatment of diseases of the ear, and the ear could not be put into a healthy condition so long as such enlargement existed. Therefore, otologists were accustomed to advise excision of the enlarged tonsils, in order to favor obtaining a healthy throat, which so much favored a healthy ear.

With reference to gargling, he was in full accord with Dr. Lefferts regarding its inefficacy; yet he believed it might be made much more efficacious than it ordinarily was, by following von Tröltsch's method, which had not received the consideration to which it was entitled.

VON TRÖLTSCH'S METHOD OF GARGLING.

The method is as follows: The gargle is held in the back part of the mouth, the head thrown well back, and the nostrils closed with the fingers; swallowing motions are then performed without actually swallowing the solution. That by this method the pharynx could be reached he had proven by painting the wall of the pharynx with iodine and then causing a solution of starch to be used as a gargle, when the characteristic reaction was produced invariably.

Dr. R. P. Lincoln remarked with reference to the wide influence which diseased tonsils, especially chronic hypertrophy, exerted over the ears, that it had been his fortune, in several instances, to see quite anomalous phenomena, which had led him to seek for a cause for ear-phenomena associated with tonsillar affections, and he had reached the conclusion that it was purely mechanical, and produced through the agency of the nerves coming from the glosso-pharyngeal, acting in a reflex manner. There was also, through the otic ganglia of the sympathetic system, a connection between the throat and the ear. Within the past week, in endeavoring to remove a collection of inspissated mucus from a tonsil, although it was done with the very least degree of violence, the patient subsequently suffered from pain in the ear sufficiently severe to prevent sleep, and yet there was no manifestation whatever of inflammatory action in the ear itself. He thought such collections of inspissated mucus in the tonsils required treatment much oftener than, perhaps, ought to be inferred from the remarks of the writer of the paper. There were many patients who had enlarged tonsils, not perhaps to a degree to require excision, but often requiring treatment because of the pharyngeal catarrh they produced, and such cases he believed should be treated by applications, such as referred to, into the crypts themselves of the tonsils. Perhaps nitrate of silver might be used. A favorite mixture with him was carbolic acid and co. tr. of iodine, in the proportion of 1 to 2, applied directly to the lining membrane after the crypts had been rid of the collections of mucus. It was not always successful; and, when not, excising a small portion and applying the galvano-cautery to the lining of the crypt would almost always effect a cure.

He referred to a case in which a collection of inspissated mucus was as large as an English walnut.

Dr. Bosworth believed that the exudation in follicular tonsillitis was croupous in character, and that it could be best cured by passing a probe coated with nitrate of silver into the crypts and the administration of large doses of quinine. With regard to the many evils attending enlarged tonsils, such as poisoned air going to the lungs, dyspepsia, etc., he was in accord with Dr. Lefferts, but with reference to the sinking in of the bones of the chest and the formation of "pigeon-breast," referred to by Dr. L. as one of the results of enlarged tonsils, he should simply attribute that condition to a rachitic diathesis preceding and probably favoring the existence of enlarged tonsils. He also referred to nightmare as a common symptom of chronic enlargement of the tonsils.

With regard to *acute tonsillitis*, he thought it quite probable that, in most cases, no form of abortive treatment possessed special efficacy; still, in a number of instances he had succeeded in aborting what he believed was the disease by giving grs. x. of quinine, and following it with Fleming's tincture of aconite in such doses as would rapidly produce marked physiological effects of the drug, such as dryness of the throat, dizziness, and ringing in the ears, and then discontinue it. That method would do no good if suppuration had been established.

He regarded croupous, catarrhal, and diphtheritic as three distinct forms of inflammation, and thought that more care should be taken in making the nomenclature of diseases of throat to correspond to the pathological state.

Dr. A. H. Smith thought that incising the glands in *acute tonsillitis* left wounds nearly as large as would be made by ablation, and as the latter was the most efficient, it might better be employed at once.

With regard to occasional *failure of the stump of the tonsil to atrophy* after the projecting portion had been removed, it was perhaps to be explained, at least in some cases, that the tonsil receives blood at its upper portion, and the lower portion alone has been removed. If the upper portion of the tonsil was cut off, the supply of blood was removed, and the operation was quite effectual. If the anterior pillar of the fauces was adherent to the tonsil, as it was not infrequently, it was important to first break up the adhesions, so as to secure complete ablation of the superior portion of the gland.

He suggested the following method of *coating a probe with nitrate of silver:* Dip the extremity of the probe into powdered nitrate of silver and then hold it for an instant over a flame, and the silver that ad-

heres to the probe will melt and form a smooth covering.

Dr. F. A. Burrall remarked, regarding the treatment of tonsilitis, that he did not accept the views of those who dissented from the use of gargles, because they do not reach the pharynx: for, as a rule, in tonsillitis it was not the pharynx we wished to reach. A gargle might be used so as to give pain, or it might be a temporary substitute for a poultice and give efficient relief. The action of a warm gargle repeated every half hour was to favor suppuration, and, when they contained emollient substances, were very soothing and beneficial. Gargles, steam, and spray, all had their value. Stimulating gargles, were of value in reducing the size of hypertrophied tonsils. He favored constitutional treatment in throat diseases, and by preference gave a calomel purge in the early stages of acute tonsillitis.

All acute sore throats should be treated as if infectious, especially in children.

Tonics, beginning very early, and frequency of application, were very important in the abortive treatment of tonsillitis and other forms of sore throat.

REPORT OF THE STATISTICAL SECRETARY.

Dr. F. V. White, Statistical Secretary, announced the death of Freeman J. Bumstead, M.D., LL.D., and gave a brief sketch of his life.

The President paid the following tribute to his memory:

By the death of Dr. Bumstead, the Academy of Medicine and the profession of this city have lost one of its most eminent men, who contributed largely to give it the rank which is now conceded to it, not only in this country but abroad. He had always been a most industrious, methodical, able and honest worker for its science and its literature, and the results of his labors will hold a prominent and a permanent place in medical literature.

As an intimate acquaintance of more than twenty-five years, I am competent to say of his personal character, that it secured the warm affection and sincere esteem of all those who enjoyed this privilege.

In accordance with the by-laws, I will designate to prepare a memoir of Dr. Bumstead, one eminently qualified to do justice to his personal qualities, his professional abilities, and his literary work—Dr. Geo. A. Peters.

ADOPTION OF NEW BY-LAW.

The new by-law relating to fellowship was adopted to take effect after the first meeting in January, 1880. The Anniversary Meeting was announced to take place on Thursday evening, December 11th, with Dr. Leroy M. Yale as orator, and his subject, "The Academy as an Educator."

The Academy then adjourned.

[illegible], Wednesday, December 11, 1879.

Fordyce Barker, M.D., LL.D., President, in the Chair.

The Academy was called to order at 8 P.M., and prayer was offered by Rev. Dr. Washburn.

The orator of the evening, Dr. Leroy M. Yale, being unexpectedly detained at home on account of sickness, Dr. F. A. Castle read the oration, which had been assigned to him.

THE ACADEMY AS A TEACHER.

A brief historical sketch was made by the orator of the Academy as an institution, with its present position in its new library hall, the manner of its creation of the far-sightedness of one of the fellows; to the methods of controlling the education preparatory to entering the medical profession; to the great law of supply and demand, which had a marked influence in every department of society; to the principle that men, like water, found their true level—a principle which pretty constantly affected every member of society; and then the orator passed to the main subject of the oration, and inquired how had the Academy taught in the past, how is she teaching, and what part will she take in the teaching of the future?

The Academy had been efficient as a teacher in two important ways—namely, cultivation of the science of medicine, and elevation of the character and honor of the profession.

With reference to the first, the scientific papers presented during the thirty years it had existed, possessed considerable value; indeed, as had been said, "a value far greater than we can well imagine." It might be said that those old papers had been left far behind, and were worthless as aids to modern study; but their value must be estimated from the standpoint and the date at which they were written, and then their intrinsic worth became apparent, and the influence which they exerted upon the education of those who lived subsequent to their authors might be duly appreciated.

The second avowed object in founding the Academy was an ethical one, and that end had not been lost sight of. The loss of the esteem of the fellows was a potent factor in regulating the ethics of the profession, in elevating the character of its members, and maintaining its honor; and it was to be hoped that the influence of the traditions of the fathers would not be lost in this particular—namely, only those were elected to fellowship who won the position by purity of conduct.

The orator then referred to the library of the Academy, its origin and its work, and urged its claims upon the fellows and the profession for contributions of books, even old books—for it was nothing of disparagement to a library that it was rich in old books; and the calm wisdom of old experience was oftentimes more substantial aid than the brilliant exploits of young enthusiasm. The Academy had opened its reading-rooms, and the influence which a storehouse of books could exert might now permeate among the reading classes. But there were others whose wants should be supplied, and to that end he urged, with Dr. Thomson, who delivered the Anniversary Address for 1878, that lectureships should be established; and, in order to secure the lectures, if funds were not forthcoming, an appeal should be made to those who are able to lay aside their modesty and speak without pecuniary reward.

He also suggested the founding of scholarships, and asked if it was not possible for the Academy to found a museum. If museums were good, there could not be too many of them. To be sure, the city had Wood's Museum at Bellevue Hospital—a monument of great personal energy and industry; the New York Hospital Museum, and college museums. But the museums of hospitals and colleges would always be increased by those who were in close affiliation with them, while a museum founded by the Academy of Medicine would gather a new type of specimens, and a large amount of valuable material which now was wasted. A museum, once started, could be built up the same as had been the library, and all that could illustrate the science and art of medicine could be secured for the Academy, if it would undertake to be its custodian.

In conclusion, the orator alluded to the Academy as an association not devoted to special study or narrow special ends, but a common meeting-ground of the best elements of our professional body, and an organization that had the power of age and the character of authority.

The oration was well received.

The President extended the thanks of the Academy to Dr. Castle, after which the exercises were closed by the benediction.

Correspondence.

THE EDITORIALS ON ASYLUM MANAGEMENT.

A Letter from Prof. E. C. SEGUIN, M.D.

To the Editor of The Medical Record.

Dear Sir:—The issues of the Record for Dec. 6th and 13th contained editorial comments upon the Senate Committee's report on the petition of the New York Neurological Society, praying for an investigation into "the management of all institutions for the care of the insane in the State of New York." These editorials are calculated to cast discredit upon the members of the Society and upon the signers of the petition, and are based upon a confiding acceptance of the statements of the Senate Committee. This committee's report is biassed, filled with deceptive phrases, and contains positive falsehoods. This will shortly be made known to the public by the Neurological Society in a formal review of the report.

I now beg the privilege of calling your attention to a few points which may be of interest to your readers, and are necessary to a fair statement of the questions you raised.

1. You ought to have given the names of the committee of the Neurological Society, as a work is judged somewhat according to its authorship. The names of the committee which prepared the petition are: T. A. McBride, E. C. Harwood, E. C. Seguin, E. C. Spitzka, and J. G. Kiernan. After the acceptance of the petition by the Society, the names of William A. Hammond, W. G. Morton, and Landon C. Gray were added. These gentlemen are perfectly willing to be looked upon as petitioners in such a noble cause as that of bettering the condition of the insane. They need no defence, and fear no comparison with any one.

2. The committee of the Neurological Society believe to-day that every sentence of their petition is correct, and think that a thorough investigation made now would show that many of the questions in the petition would expose ugly sores. Was not the Asylum for Convicts at Auburn found in a frightful condition by a legislative committee in 1876, only three years ago? Yet that asylum had been approved by the officials who managed the proceedings of the Senate Committee (*vide* "Archives of Medicine," Vol. II., p. 190 *et seq.*). This instance (which reads like a story from asylums before the days of Pinel), and numerous complaints in the press, and our reading knowledge of the working of asylums, were the data calling for an investigation. Besides, we had material such as conversations with superintendents, long talks with assistant physicians, etc., which, being of a private nature, could not be utilized without breach of manners or of trust. But above this we deny that we were *witnesses;* we were citizens and taxpayers praying for inquiry; we were *asking* for the facts from the only parties who could give them, viz.: the asylum officials, *under oath.* Dr. Willard Parker, Sr. (and no doubt others), wrote a letter of sharp rebuke to the Senate Committee, in reply to their "summons." They are careful not to print these letters. If we had had *charges*, in the technical sense, we would not have gone to the Legislature. What has it to do with "charges"? We would have gone to the Governor, or to the courts, with our charges and witnesses.

3. The Senate Committee, and I regret to say, the editorial also, ignore that in the very nature of the questions asked by our petition, ordinary outside testimony could not be adduced. For example, how can any one but a superintendent testify "of his own knowledge" as to the number of days he is absent from duty, the frequency of his night visits, his outside professional work, etc.

Indeed, I think that almost all the inquiries suggested by the petition are of such a nature as to be answered only in the way mentioned.

4. The Senate Committee speak as if our petition referred to *State asylums.* It did not; it expressly referred to "all institutions for the care of the insane in the State of New York." Several of the worst abuses we well knew not to exist in the State asylums.

5. In your first editorial, you speak as follows: "For this failure they are accountable to the profession they assumed to represent."

I would beg to know if, when you wrote this, you had seen the list of names attached to the petition? Did you know that the following gentlemen were petitioners?—Prof. Willard Parker, Prof. John T. Metcalfe, Prof. T. M. Markoe, Drs. E. R. Squibb, R. F. Weir, Andrew H. Smith. Why not say that these gentlemen *do* represent the profession; is it easy to find a more representative and honorable group? Such a statement as yours, like the insinuations of the Senate Committee about the motives of the promoters of the petition, and the standing of the Neurological Society, are personally offensive and unjust. As to the standing of the Society, your own columns for the past two years are good enough witnesses.

6. Next, as to a vile charge circulated broadcast by the superintendents and the Senate Committee: that of forging names of signers. President Barnard did sign the petition (my own copy) without solicitation, after keeping the document at least three days. He simply forgot all about it, and then wrote letters of a most injurious tenor. I called upon Dr. Barnard in April about this matter, and found his *amnesia* still complete. He then said that his reason for withdrawing his name from the petition was that it affected the reputation of a colleague and friend (the Commissioner of Lunacy), and he expressed no criticism of the petition itself. So the name of Dr. John W. Draper was forged! It happens that the name on the petition is John C. Draper; no one sought to obtain his father's name.

7. Your second editorial seems to have been written with quite another kind of ink. It also treats the petitioners unjustly, but in some respects it encourages us. In it you express substantially our grievances, you proclaim the existence of abuses, and (most comforting) you do it precisely as we did it, without legal proof. If a power were to place you on the witness-stand, could you "of your own knowledge" testify as to the existence of the abuses you write about? We must, indeed, pity the insane if their treatment is to be improved only after legal

proof of mismanagement, neglect, non-medical treatment, etc., is obtained.

I would conclude by saying that the petitioners are in no wise on the defensive, but are as active as ever for asylum investigation and reform. Some of them were glad to co-operate in the movement which culminated in the meeting at Cooper Union on December 18th. They will be satisfied if a lunacy commission or board of lunacy be established, for one of the duties of such a board will be investigation. I greatly fear that next winter will witness an opposition to the bill for a commission an opposition conducted by the asylum officials. Yet, the other evening, the Rev. Dr. Storrs reminded the superintendents, that their safety and good reputation would only be made more secure in public estimation by having such a commission, and by answering all questions. As he eloquently said, the broad light of day should shine upon this whole subject of lunacy.

Very truly yours,

E. C. Seguin.

[The strictures of our esteemed correspondent invite a word or two of explanation from us. At the start we put in a plea of not guilty. We are sorry to say that we have nothing to retract. The true significance of this assertion will be better understood, perhaps, when we state that we are in full sympathy with all well-directed methods for reforming asylum management. We candidly confess that we expected better things of the Neurological Society. In the expression of our disappointment at the results of the petition, we believe we echoed the general sentiment of the profession. If we have misinterpreted such a sentiment we are willing to acknowledge our error.

Our remarks were based, it is true, "upon a confiding acceptance of the statements of the Senate Committee," because we had nothing else to guide us. We were not aware, at the time of writing, that the report of the Senate Committee was biassed, etc., and even now we are asked to wait for the proof of such a charge until the committee of the Neurological Society shall make a formal review of said report.

We did not mention any names in referring to the petitioners. In the discussion of principles, we can afford to lose sight of individuals. We were estimating the character of the work rather than the ability of the workers. We acknowledge their ability, but are simply disappointed in their work. There is no disposition on our part to deny them the privilege of petitioners. They are working in a good cause, and we hope they will be able in the forthcoming report to vindicate their course in the recent investigation. We did not assert that the gentlemen who were witnesses before the committee could not prove that there were very many abuses in asylum management, but that they did not.

We are not a little surprised to learn that, after testifying before the committee, the gentlemen must not be considered as witnesses. If it were not proper to appear as witnesses, why did the gentlemen do so? But we are not willing of ourselves to acknowledge that they did wrong, under the circumstances, in simply appearing and in giving testimony. The petition was an extraordinary one, in that it referred to gross abuses in the medical management of insane asylums, and the Senate Committee very naturally asked for some explanation from the medical men signing the petition. The end to be attained was of such great importance that the petitioners were warranted in giving all the aid they could to the Senate Committee. When the Senate Committee state that the petition refers simply to State asylums, they are clearly in error. But we cannot understand what this has to do with the question.

Evidently, there were many questions which could not have been answered by any but the superintendents or nurses of asylums; but, besides, there were statements of the greatest possible significance referring "to more strictly medical matters," which should have been verified by the petitioners themselves. This was all that could have been expected of them.

In the matter of accountability to the profession, we referred more particularly to those gentlemen who appeared as witnesses, and to those who were the more active movers in the petition. If the other petitioners, named by our correspondent, are willing to endorse all that has been done by their confrères before the Senate Committee, we are of the opinion that they likewise are accountable to the profession. In fact, the higher and more representative their positions, the greater are their responsibilities.

We did not know, when we wrote the editorials, who were the additional signers referred to by our correspondent. Hence we are entirely innocent of any charge of ignoring their representative character, or of applying any remarks to them which were "personally offensive and unjust." But we fail to see how a mere knowledge that these particular gentlemen had signed the petition could have helped us to any different conclusions. We said nothing against the standing of the Neurological Society. The very fact that the petition was endorsed by the Society and started by some of its prominent members, gave us every hope that great things would be accomplished.

We have nothing whatever to do with the so-called charge of forging names to the petition. We never believed such a thing possible with any member of the committee, and any explanation referring to it is entirely irrelevant to the discussion. We claim that the second editorial referred to by our correspondent was perfectly in keeping with the first. We have often written of the abuses in asylum management, and there is nothing inconsistent in referring to them in connection with the report of the Senate Committee. Our statements are always founded on facts, and we are always ready to assume all responsibility for them. If we cannot furnish legal proof for everything we say concerning asylum or other matters in these columns, we are willing to publicly retract such statements and apologize besides for our presumption.

In conclusion, we beg the pardon of our correspondent for replying to him in this direct manner; but we could not deny him the justice of being heard, neither could we afford to have many of his statements go unchallenged.—G. F. S.]

KOLPOKLEISIS AND CLOSURE OF THE VULVA FOR VESICO-VAGINAL FISTULA.

Reply to Dr. Wm. Goodell.

To the Editor of The Medical Record.

Dear Sir:—In your issue of Nov. 29th, under "Reports of Hospitals," are set forth the views of Dr. William Goodell upon the treatment of twenty or more of the diseases of women as they have occurred in his service at the Preston Retreat, Philadelphia. Prominent among them are kolpokleisis and "closure of the vulva for vesico-vaginal fistula."

Dr. Goodell's deservedly eminent position, both as a teacher and a writer upon gynæcological subjects, gives his views and opinions great weight with the

profession, whether endorsed or not by the individual reader.

I am induced to call special attention to Dr. Goodell's method of treating certain forms of vesico-vaginal fistulæ, by asking two questions: First, is the method he recommends the best that can be employed? and, second, does it have the sanction of American gynæcologists?

1. *Is the method recommended the best that can be employed?*

Upon this point, Dr. Goodell is reported in these words: "In curable cases of vesico-vaginal fistula, in which the urethra has been destroyed, he has twice succeeded in wholly relieving the patient. In one instance this was done by making an artificial recto-vaginal fistula; and, in the other, by leaving an already existing one intact, and closing up the vulva. Whenever practicable, he prefers, in this unfortunate condition, when the urethra is unimpaired, to close the vagina as high up as possible, so that the marital relations shall not be interfered with."

Now, with regard to the destruction of the urethra, from whatever cause, when associated with an incurable vesico-vaginal fistule, the teaching of Dr. G., if the writer understands it properly, is to establish a permanent fistulous opening between the rectum and vagina, should one not already exist, and then proceed to close up or obturate the vulva by refreshing and uniting with sutures both pair of the labia pudendi, thus throwing the bladder, vagina, cavity of the uterus, and rectum into direct communication with the anus, which shall serve as a common outlet for all. The effect of this is to force all the urine to pass from the bladder into the vagina, and from the latter into the rectum, alone or commingled with the menstrual blood when present, and *vice versa*, the gas and dissolved fæces to pass from the rectum into the vagina, thence into the bladder and the cavity of the uterus, when, as is usually present in this condition, a patulous condition of the mouth of the latter favors it. To this state of things the gradually developing sequences must also be added—such as alkaline urine, cystitis, nephritis, calculous formations in the kidneys, ureters, and bladder, vaginitis, with calculous formations and ulcerations, granular erosions of the os uteri, endometritis, metritis, cellulitis, peritonitis, nervous complications, irritation, inflammation and ulceration of the mucous coat of the rectum, chronic diarrhœa, gradual loss of power over the sphincter ani muscle, with more or less incontinence of the urino-menstrual secretions with the fæces; death sooner or later, and the picture of the ordeal through which the sufferer may be expected to pass is complete.

Scarcely need it be said that this is kolpokleisis in its worst form. Even when the urethra is uninjured, and the object is to refresh and unite the opposing walls of the vagina high up, for the relief of incurable vesico-vaginal fistules, and as a means of preserving the sexual functions, as stated in the quoted remarks, the accompanying sequences differ only in number, and the sufferer will have to pass through the same ordeal indicated above, less that portion relating specially to the rectum and its functions. Dr. Goodell's large clinical experience may enable him to draw more hopeful conclusions in the classes of cases pointed out than is here shown by the writer; but the laws of chemistry, and those affecting the spread of disease, whether in the solid textures of organs or in their hidden cavities, are invariable; and from what has already been abundantly attested in these particulars by equally close observers, there is reason to believe he, too, will have occasion, sooner or later, to change his views regarding results, should he chance to watch these cases long enough, and interpret aright the concatenation of sequences just enumerated. To convert a part of the vagina into a urinal, as by kolpokleisis, to relieve incontinence of urine, and to save the other part, "so that the marital relations shall not be interfered with," while the urethra serves as an escapement for the urine and menstrual blood, is acknowledgment enough of the defectiveness of the resources of gynæcology; but to feel obliged to make not only an urinal, but a gasometer of the vagina and bladder, as by vulvokleisis with the rectum serving both as supply and escapement tube for gas, fæces, menstrual blood, and alkaline urine, is still more humiliating in the face of so many advanced improvements in other special branches of practice. This writer is of the opinion that in all cases calling for such methods of treatment, a plug-valve and an overflow escapement are far preferable, and that the place for the former is in the recto-vaginal passage, and, for the latter, in the mouth of the vagina. He furthermore believes, these two points of practice being recognized and insisted upon, that if the resources of gynæcology are not equal to the requirements of overcoming the obstacles to the legitimate cure, with preservation of all the normal functions intact, it is better to trust to mechanical expedients by which the free outlets of the bladder, vagina, and uterus can be maintained, and the sufferer made in no small degree comfortable and contented.

The analogue of the perversion of the functions of the rectum as above indicated, is found to exist in the male subject from the establishment of a communication between the rectum and the bladder—recto-vesical fistule—from whatever cause; but in this relationship of the two organs, the bladder maintains its urethral escapement, by which it is siphoned both of gas and urino-fæcal discharges. It differs in this last important particular from the female bladder after the employment of the method described, since the urethra is here supposed to be destroyed and its vacant place shut in, thus rendering it impossible through this natural channel to siphon either the bladder or vagina of gas and urino-menstrual and fæcal fluids.

Now the evil consequences of a recto-vesical fistule are almost nothing as compared with those following a recto-vagino-vesical fistule, yet where is the surgeon to-day, with the bright lights of science dazzling before his eyes, who would dare imitate the example of Sanson (1816), and cut for stone through the rectum, with nearly all the chances against him that the lesion in question, with all its dreaded sequences, would follow? Great, however, as the responsibility would here seem to be, it is but little, if any, less great than the employment of the method under consideration, without a compensating urethral escapement, with stop-cocks by which the bladder and vagina might, at least, be siphoned occasionally of their constantly accumulating gas from the rectum, and be flushed in their deep pouches and recesses with disinfectants.

2. *Has the method recommended received the sanction of American gynæcologists?* In 1833, when Vidal (de Casis) first proposed to obturate the vulva for the relief of incontinence of urine from vesico-vaginal fistules situated in the *bas fond* of the bladder, and attended with loss of tissue, then believed to be incurable, as shown by various discussions upon the subject before the Academy of Medicine of Paris, it did not

occur to him that closure of a mutilated urethra or its vacant place might ever be included in the same novel procedure. To whom the credit is due of having been the first to execute this modification of the procedure of M. Vidal, the writer is not informed. Per contra, from the great improvements made in the treatment of vesico-vaginal fistulæ within the last few years, the writer had supposed that this French theory had sunk into desuetude. Having himself only one time, many years ago (1853), attempted the expedient, which failed, in a case thought to require it by an eminent gynæcologist, and having afterward legitimately cured the case with preservation of the functions of all the organs involved, he can now hardly be expected to set any higher value upon the modification of it here discussed, than upon the original procedure at the date mentioned. As to the appreciation of American gynæcologists generally of such expedients, he has again to acknowledge his want of information. Dr. T. A. Emmet, in his recent work (Principles and Practice of Gynæcology), may, however, be referred to as having lately ranged himself on the side of opposition to kolpokleisis, the twin sister of the procedure under consideration. After speaking in a general way of the controversy between the author of this method and the writer, he says: "There exists no greater malpractice in surgery than the procedure which we are told was practised by that great master, the late Prof. Simon, of Heidelberg." In the interest of suffering women, no more important precept in practice than the above could be laid down for the guidance of inexperienced operators, and of itself is enough to recommend the author, although at the eleventh hour, to the highest consideration, even had his book no other claim to merit. Now, notwithstanding the fact that the writer has for so many years stood alone, and opposed, upon scientific grounds, these French and German expedients, both with his pen and upon the operating-table, at home and abroad, under the eyes, so to speak, of their authors, he has never yet characterized them as malpractices; he has, however, often said, and here reiterates it, that they have a most important medico-legal bearing, both as regards the marital rights of husbands and the recourses left to mutilated and helpless wives, that will, sooner or later, in extreme cases, demand, he believes, judicial investigation as to the legitimacy and necessity of their employment. While kolpokleisis, especially, is known to be notoriously common throughout Europe, except, perhaps, in Austria, arising, mainly, from a want of appreciation of kolpoecepetasis, its opposing companion here in the United States, where the first highest success in the treatment of vesico-vaginal fistulæ was attained, the latter principle, in some form, has generally been accepted and acted upon, though oftentimes, no doubt, very inefficiently. The consequence is, that the objectionable expedient herein has been kept in the background which only occasionally comes to the front under some other designation than Kolpokleisis, as may properly be said of the words quoted in the sentences forming the basis of these remarks.

A rose is said to be just as sweet called by any other name. The closure of the vagina in its continuity, by agglutination of its walls, for an incurable vesico-vaginal fistula so-called, is high-sounding, it is true, to the uninformed and uninitiated; and the proposal really does at first glance betoken some science and philosophy, especially to have coupled with it the assurance "that the marital relations shall not be interfered with." But, however that may be, the vindication of science or of philosophy, it is believed by the writer at least, accepts the old cognomen kolpokleisis, which openly contemplates the establishment of a urinal in one end of the vagina, and a blind *cul-de-sac* of variable dimensions in the other end, as far preferable, since it is historic; and he or she who reads it aright may understand its worth, the ignorant as well as the learned.

Yours truly,

NATHAN BOZEMAN, M.D.

NEW YORK, Dec. 8, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 20, 1879.

Week Ending	Typhus Fever	Typhoid Fever	Scarlet Fever	Cerebro-spinal Meningitis	Measles	Diphtheria	Small-pox	Yellow Fever
Dec. 13, 1879...	0	11	51	1	196	33	0	0
Dec. 20, 1879...	0	4	42	1	271	57	0	0

DR. JOHN C. PETERS AND THE TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY.—In our recent review of the Transactions of the New York Pathological Society, we accidentally omitted mention of the name of the editor, Dr. John C. Peters, to whom all the credit is due for making the volume what it is—the most interesting and instructive of its kind yet published.

LUMBO-COLOTOMY.—Dr. Howe's case of lumbo-colotomy lived seven *months*, instead of seven weeks, as stated in the report of the Pathological Society.

THE SUCCESSFUL PRACTITIONER OF PINE RIDGE.—To such as may be interested in the success of the "Successful Practitioner," we will state that his letters have been so extensively copied in the various journals over the country, that he has become concerned about his reputation.

The following letter to the *Boston Medical and Surgical Journal* proves that the best of us are anxious to be right on the record. It also affords us another example of the practitioner's kindness towards White and his concern for the Code. His reply to a complimentary letter from France shows him ever ready to be obliging.

To the Boston Medical and Surgical Journal:

"MR. EDITOR—Although my great professional success has placed me beyond any vanity for new triumphs, I cannot help expressing my satisfaction in seeing my letters republished 'in your excellent, influential, and widely circulated journal.' I hope that the foregoing compliment will permit me to 'call your attention to an error of your printer.'

It so happens that, very unfortunately for my reputation in this country and abroad, you call me the 'Pea Ridge' instead of the 'Pine Ridge' practitioner. The fact is, my former partner lives at Pea Ridge, and is making capital for himself by claiming to be the author of my letters. I have heard, incidentally, that many patients really sent to me have

come under his care in consequence of your error. This would be a small matter, as I did not write to advertise myself, but in justice to 'my noble profession, of which I am an humble member,' I believe it to be my duty to expose fraud.

I may say, in passing, that White is growing a little cool towards me. I cannot imagine the reason for this, except that I now have another of his good families. I was called in consultation a month ago, and heard nothing more of the case until the father of the family asked me to be the regular attendant henceforth. I at first refused, and told him of code regulations, when he said that he had really discharged White; that it was a free country, and he was determined to have a doctor to suit himself. I smilingly said, 'there was no accounting for people's tastes,' and rather reluctantly consented to oblige him. I felt it my duty, however, to say a good word for poor White, by remarking that, notwithstanding almost all his patients eventually came to me, I really pitied him. He deserved better things. I saw, however, that my new patient did not care to sympathize with me, inasmuch as he said he believed in the survival of the fittest. But it only shows how ungrateful patients can be.

Please give my compliments to your friend in Pau, France, and tell him that when he returns to this country I should be happy to meet him in consultation. I intend to send him a copy of the latest edition of my work.

If it is not asking too much, you may mention in 'your valuable journal' that I have been elected trustee of our college, and that the class is larger than ever this year. Also, that I have performed my nine hundred and seventieth operation for abrasion of the os, and am just completing the fortieth edition of my work, which will be immediately translated into all the foreign languages. When you receive the work for review, be careful not to send it to my partner at Pea Ridge.

* * *

Pine Ridge on the Hudson.

Lister in Germany.—The French know how to say things effectively. M. Verneuil, in commenting on the enthusiasm with which the Lister treatment has been received in Germany, says: "In Germany the antiseptic treatment is not a method; it is a religion, and a religion which has its priests—and also its martyrs." Lister has taught the Germans surgical cleanliness; for this, if not for his theories, they should be grateful.

Metallotherapy.—Five cases of paralysis are said to have been cured recently by the external application of magnets. The cases were not all hysterical ones. The first had been poisoned by lead; the second was subject to epilepsy; the third had had an apoplectic attack.

MM. Proust and Ballet are the gentlemen who announce these cures. They have made reports before, and their statements grow more wonderful with each report.—*Gazette Méd. de Paris.*

Hysterotomy in the Treatment of Fibrous Tumors.—M. Duplay has communicated to the French Academy of Medicine some statistics in regard to the treatment of fibrous and fibro-cystic tumors by operative procedure. He divided the cases into those of fibrous and those of fibro-cystic tumors of the uterus.

1st. Of fibrous tumors that had been removed by laparotomy, leaving the uterus behind, there were 17 cases, with 5 cures and 12 deaths. Similar tumors removed with the whole uterus, 55 cases—23 cures and 32 deaths.

2d. Of fibro-cystic tumors, 41 cases, with 22 cures and 19 deaths.

Uniting the whole, there are 113 laparotomies for fibrous tumors, with 50 cures and 63 deaths.—*Gazette Hebdomad.*

The Precursors of Cancer.—At a recent meeting of the London Clinical Society, Mr. G. Lawson read the notes of a case of cancer of the breast following eczema of the nipple. In the subsequent discussion a number of prominent surgeons took part, including Sir James Paget and Mr. Hutchinson, and some interesting facts were brought out. It was pretty generally agreed that there were a number of chronic disturbances of nutrition, which, if neglected, ended in cancer, when the cancerous period of life came on. Thus, eczema of the breast, if it were really eczema, was shown in a certain per cent. of cases to be a precursor of cancer, and the question of the early extirpation of the breast was a very important one. A similar clinical history was ascribed to icthyosis of the tongue. This, in course of time, is likely to eventuate in cancer. A like remark applies to old burns or scars on the lower extremity. If, in advanced life, these begin to ulcerate, they are liable to become cancerous. So, too, of other conditions, such as syphilitic disease of the tongue.

The importance of knowing that cancer has its precursors was strongly urged, and an early treatment advised.

Fucus Vesiculosus.—This plant has now become quite popular as an anti-fat agent. In connection with its supposed properties in this direction, the *Medical Press and Circular* relates the history of its use by Laënnec fifty years ago. Laënnec had observed that on the coast of Brittany there was very little consumption. Attributing this to the atmosphere of that country he tried to reproduce it, as nearly as possible, in his wards in Paris. He had a quantity of sea-weed, including the fucus, brought to his hospital and placed near the beds of his phthisical patients. He also made them drink an infusion of the *fucus vesiculosus*. As long as the patients had the fresh plants, much improvement in health was noticed; cough and fever diminished, and the weight increased. It thus appears that the *fucus*, which is now used to reduce the weight, fifty years ago was used to increase it! Perhaps one may be permitted to exclaim: *O tempora! O mores!*

Galvani.—A monument has recently been erected in Bologna to Luigi Galvani. Signor Vella, Bolognese Professor of Astronomy, in a memorial address took occasion to defend vivisection very eloquently.

Benzoate of Soda.—The number of diseases for which benzoate of soda is a specific, or claimed to be, is increasing at the rate of about one every two months. Starting as a cure for diphtheria, it has had like claims for it in scarlatina, acute rheumatism, and puerperal fever. Now Rokitansky is said to have discovered anti-tuberculous virtues in it. As the pathology of consumption is reverting to the tubercular basis, the drug has been tried in that disease, and with reputed great success. A five-per-cent. solution is sprayed down and into the bronchial tubes twice a day.

BOOKS RECEIVED.

Outlines of the Practice of Medicine. By Samuel Fenwick, M.D. Phila.: Lindsay & Blakiston. 1880.

INDEX.

A.

Abbott, Dr. Charles, 311.
Abscesses, cases of extraction of nearly one hundred biliary calculi through, 30.
Abernethy, Dr. John, Jay, notice of death of, 432.
Abscess of submaxillary gland, 459.
Abscesses, deep, treatment of, 457.
Academy of Medicine in Paris, 304.
Acid, carbolic, in malarial disease, 419; chrysophanic, 69; chloroform and the episodes of pregnancy, 372; cresylic, in whooping-cough, 549; hydrocyanic, therapeutic value of, 157; salicylic and lupus, 227; sclerotinic, 155.
Acne rosacea, 34; treatment of, 120.
Aconite in pneumonia, 120.
Acoustics, a contribution to the science of, 117.
Adenitis, 521; acute suppurative, 588; syphilitic, 588.
Agraphia and aphasia, 555.
Albuminuria of men, 36.
Albuminuria, puerperal, jaborandi in, 33, 307.
Alcohol, in brain tissue, 454; cravings for, 451; and hospitals, 240; the medicinal use of, 278; and tobacco, 455.
Alexis St. Martin, 384.
Alimentation, intra-vascular, 19.
Allingham, Dr. William, notice of book by, 86.
Allport, Dr. Frank, heat in the treatment of fevers, 414; the treatment of yellow fever, 166.
Aloes in the treatment of wounds of the joints, 300.
Alopecia areata, etiology of, 156.
American Academy of Medicine, 71, 239, 311.
American Dermatological Association, 120, 230, 256.
American Gynecological Society, 209, 312, 330, 373, 374.
American Laryngological Association Library, 96.
American Medical Association, 599.
American Neurological Association, 14, 41.
American Neurological Association and electro-therapeutics, 237.
American Ophthalmological Society, 119.
American Otological Society, 119.
American Pharmaceutical Association, 238.
American Public Health Association, 446, 519, 522.
Amphoric respiration, 192.
Amputation, of the hip, novel method of controlling hemorrhage, 215; supra-condyloid of thigh, 511.
Amyl, nitrite of, and chloral, 519; and chloral poisoning, 156.
Anglo-[illegible] Association, 588.
Anatomy, cerebral, 427; Claude Bernard's treatise on, 451.
Anæmia and the hæmacytometer, 82.
Anæsthesia, chloroform and morphia for, 456; its "dis-[illegible]," 428, [illegible] 295.
Anæsthetics, 4; a new one, 575; action of, 107.
Aneurism, arsenical treatment of, 291.
Apoplexy, clinical lecture, 580.
Anderson, M. F., notice of book by, 110.
Andrews, Dr. Edmund, quacks and regulars, 70.
Aneurism, absence of physical signs in, 489; arch of aorta, 594; of the auricle of the ear, 300; fatal result in treatment by Esmarch's bandage, 455; internal treatment of, by chloride of barium, 300; sphygmographic indications in, 507.
Angell, Dr. Henry C., notice of book by, 64.
Ankle-joint, compound dislocation of, 342.
Anthelmintic, a new, 325.
Antimony in phthisis, 255.
Antiseptic treatment of wounds, 46.
Antisepticism and blood-poisoning, 346.
Anti-vivisection, 96.
Anus, perineal artificial, 68.
Aphasia and agraphia, 555.
Arkansas Medical Society, officers of, 48.
Army Medical Service of Great Britain, 192.
Arteries, new modification of the shot-bag for compression of, 559.
Ascarides, suffocation from, 326.
Ascites, transmission of thoracic sounds in, 393.
Asburst, Dr. John, Jr., cleft palate and its treatment, 145.
Asparagus, 552.
Asphyxia, chloroform, unusually late, 138; resuscitation after a long period of, 597.
Asthma from reflex causes, 345.
Asylum management, 541, 565, 618.
Athetosis, post-mortem in a case of, 612.
Atkinson, Dr. William B., notice of book by, 592.
Atlee, Dr. John L., 599.
Attfield, Dr. John, notice of book by, 64.
Atropia poisoning, danger of, 242.
Atropine in opium-poisoning, 120; and urticaria, 227.
Audiphone, 384, 526.
Auscultation, history of, 411.
Automatism, semi-conscious epileptic, 116.

B.

Bacteria in salt-water marshes, 547.
Baldness and pilocarpin, 219.
Ball, F. P., expert testimony, 548.
Bandage, the pure rubber, 216.
Barker, Dr. Fordyce, remarks on hospital practice, 521.
Bartholow, Dr. Roberts, 71; notice of book by, 542; the present state of therapeutics, 337.
Beane, Dr. Frank D., saccharated chloro-pepsine, 141.
Beard, Dr. Geo. M., nervous diseases connected with the male genital function, 292, 533.
Bellevue Hospital, fire at, 576.
Bellevue Hospital papers, 89, 189, 537, 610.
Bellevue Hospital Medical College, 336; Alumni Association of, 296; graded course in, 351.
Berkart, Dr. J. B., notice of book by, 471.

Bert, Mr. Paul, 415.
Beverages, moral effect of popular, 232
Bigelow, Dr. Henry J., litholapaxy, 306.
Bigelow, Dr. H. R., the illumination of cavities by Geissler's tubes, 537; ulceration of cervix, salpingitis, anterior and posterior version, 199.
Billroth, Dr. Theodor, notice of book by, 40.
Bisulphide of carbon in locomotor ataxia, 539.
Bladder, urinary, excision of papilloma of, 82; lime-water solvent of blood-clots in, 456; stone in, 449; stigmata of maize and the arenaria rubra in diseases of, 252.
Blepharitis, its relation to strain of accommodation, 241.
Blepharospasm, forcible dilatation of the sphincter palpebrarum in, 296.
Blind, improvement of, 591.
Blood-poisoning and antiseptic surgery, 346; prevention of, in the practice of surgery, 209.
Bloxam, Chas., London, notice of book by, 352.
Bodenhamer, Dr. W., perineal artificial anus, 68.
Bones, embolism after injuries of, 515.
Bozeman, Dr. Nathan, remarks on ovariotomy, 51, 75, 99; kolpokleisis for vesico-vaginal fistula, 619.
Brain, foreign bodies in, 252; pistol-ball encysted in, 540; alcohol in tissue of, 454; tumor of, 36.
Brandt, Dr. Wm. E., poisoning by a bee-sting, 309; poisoning by rhus rad cans, 47.
Breasts, abscess of, 513; amputation of, 420.
Bright's disease, chronic, 118; jaborandi in, 451.
British Army Medical School, 552.
British Medical Association, 143, 184, 186, 208, 228; report, obstetric section, 329; section in surgery, 305; Bengal branch of, 598.
Broad ligament, structure of, 393; cyst of, 596.
Bromine, vapor of, in croup, 326.
Brown, Dr. C. W. M., primary cancer of both ovaries, 485.
Brown, Dr. Geo., notice of book by, 568.
Brown, Dr. William K., obituary of, 47.
Brunner's glands, stricture of, 226.
Bull, Dr. Charles Stedman, inflammation of the frontal sinus, abscess, and fistula, 32.
Bulletin of the public health, 48.
Bumstead, Freeman J., M D., LL.D., obituary, 551, 575.
Burke, Dr. Martin, cases of Bright's disease treated by jaborandi, 451.
Burnett, Dr. Charles H., notice of book by, 109.
Burnett, Dr. Swan M., notice of translation by, 281.
Burrall, Dr. F. A., diphtheria and benzoate of soda, 572.
Busey, Dr. Samuel C., anæsthesia and hot water in torticollis, 295.
Buttles, Dr. M. S., the metric system and its practical application, 21.

C.

Cæcum, hernia of, 115.
Cæsarian operation, 216, 546; with removal of uterus and ovaries, 441.
Café noir and menorrhagia, 300.
Calculus, intestinal, 496; renal, formed of indigo, 393.
California, medical law of, 528.
Callan, Dr. Peter A., corneal abrasions, 548.
Callender, George W., F.R.S., obituary, 431.
Calomel in eczematous affections, 31.
Canal of Müller, persistence of, 441.
Canada, English physicians in, 452.
Cancer of cervix, 513; primary, of ovaries, 485; precursors of, 622.
Cantharides, new method of preventing strangury from, 393.
Canthoplasty and nearly fatal hemorrhage, 487.
Carbolic acid *versus* alcohol, 46.
Carcinoma, observations in one hundred cases of, 347; of the liver, 8; of the rectum, 593; uteri, 315.
Cardiac disease, treatment of organic, 299.
Caro, Dr. S., speedy cure of nasal polypi, 526.
Carotid, common, ligature of, for dental hemorrhage, 181.
Carpenter, Dr. Wm. B., 120.
Carpenter, Dr. W. M., articles by, 13, 37, 62, 107, 108, 134, 135, 206, 207, 228, 229, 230, 233, 236, 253, 254, 278, 301, 329, 373, 526.
Carr, Henry, notice of book by, 208.
Carroll, Dr. A. L., congenital absence of the rectum, 561.
Cartilages, loose, removal of, from knee-joint, 277.
Caruncle of the urethra, 513.
Catalepsy, with typhoid fever, 521.
Cataract following typhoid fever, 105.
Catarrh, nasal, prescription for, 262.
Catheterism, liability in, 120.
Cascara sagrada, 216.
Casein, 88.
Catarrh, lachrymal, 121.
Cellulitis, pelvic, 298; of neck, 539.
Cerebral thermometry, 130.
Cerebro-spinal centres, destruction of, 333.
Cerebrum, ophthalmoscope in the diseases of, 215.
Cerium, oxalate of, in pertussis, 58.
Cervix uteri, anatomical proof of persistency of, in pregnancy, 277; cancer of, 513; conical, 512; elongation of, 380; laceration of, 313; shortening by tissue-sliding, 193; tubercles of, 180; ulceration of, complicating salpingitis, 199.
Chamberlain, Dr. W. M., compound gelatine medicated tents, 335; flexible vulcanite, 450.
Chambers, Dr. T. Roland, 390.
Chancre, ocular, 204.
Chancroid, class-room lessons, 223, 273, 321.
Chandler, Dr. C. F., 550.
Change of name, 263.
Chapin, Dr. Reuben Spencer, obituary of, 143.
Chapman, Dr. E. N., milk with lime-water in scrofulosis, 175.
Chapman, Dr. Henry, 504.
Chassaignac, M., 470.
Chemistry, higher walks of, 600.
Chest-development and consumption, 547.
Chicago Gynecological Society, 137, 546.
Chicago Medical Gazette, 592.
Chicago Medical Journal and Examiner, 157.
Chicago Medical Society, 138.
Chicago sanitary interference, 590.
Children's Hospital, Philadelphia, 154.
Chiropodists, 139.
Chloral hydrate, antagonistic and antidotal powers of, 83; in diphtheria, 48.
Chloral poisoning and amyl nitrite, 156, 519.
Chloride of barium in the treatment of internal aneurism, 300.
Chloroform for worms in the nasal cavity, 326.
Chloro-pepsine, saccharated, 141.
Chlorosis, treatment by oxygen and iron, 456.
Cholecystotomy, 14, 60, 452.
Cholera infantum, treatment of, 27, 168.
Cholera in India, 455; in Japan, 190, 262, 576; jaborandi in, 251; protocoine in, 251.
Chorea, cerebral complications of, 220; minor, 521; treatment of, 157.
Churches, ventilation of and spread of contagious diseases, 614.
Cinchona alkaloids and opium, 38.
Cinchona, red, in drunkenness, 226.
Cities, sewerage and drainage of, 522.
Clapp, Dr. Herbert C., notice of book by, 255.
Clavicle, new apparatus for fracture of, 310.
Cleft palate, 145.
Clements, Dr. B. A., compound dislocation of ankle-joint, with fracture, 342.
Clergymen, gratuitous services to, 565, 598.
Clifford, Dr. William Kingdon, notice of book by, 493.
Climate of Nice, 181; of Texas, 574.
Climatology, 450.
Coccyx, bony tumor of, 496.

Code, violation of, 229.
Codeine and diabetes, 316.
Cod-liver oil, Scott's emulsive, 178.
Cohen, Dr. J. Solis, notice of book by, 39, 568.
Collars, poisonous paper, 394.
College of Physicians and Surgeons, 336.
Columbus Medical College, 32
Columbia Veterinary College, 336.
Conia, hydrobromate of, 394.
Constipation, habitual, 514.
Consultation, doctor not in, 528.
Consultations, ethics of, 421.
Consulting Board for Lunatic Asylums, resolution regarding, 446.
Consumption, increase of, in southern latitudes, 479.
Convulsions, puerperal, treatment of, 144; puerperal, jaborandi in, 307.
Cooper, Dr. William, notice of death of, 119.
Corneal abrasions, 548.
Cornea opacity of, and gonorrhœal ophthalmia, 155.
Corneitis, oyster-shuckers, 83.
Cornwell, Dr. Henry G., forcible dilatation of the sphincter palpebrarum in blepharospasm, 296.
Corpus luteum, 162.
Coto bark, 180.
Cotton as a fomite, 523.
Cowling, Dr. James, treatment of yellow fever, 262.
Crampton, Dr. Henry E., provident dispensaries, 140.
Cranium, syphilitic periostitis of, 214.
Cremation, 48
Croup, bromine vapor in, 326; membranous and diphtheria, 594.
Curare, successful use of, in a case of hydrophobia, 124.
Cushier, Dr. Elizabeth M., epithelioma of the vulva, 440.
Cyst, diagnosis of ovarian, 514.
Cystitis in female, 513; in the male, 34.

D.

Da Costa, Dr. J. M., amnesic aphasia and agraphia, 555; typhoid fever, 505; apoplexy, 580.
Dandruff, treatment of, 72.
Darling, Dr. William, 72.
Darwin, Charles, 136.
Dawson, Dr. W. W., tarsal osteitis, 582.
Deafness, sudden, from syphilis, 279.
Death in the profession, 38.
Death in surgical operations, causes of, 4.
Decapitation, new method of performing, 383.
Delafield and Stillman, notice of book by, 110.
Dementia, 434, 577.
De Rosset, Dr. M. J., 504.
Detroit Medical College, 527.
Diabetes mellitus, bilateral neuro-retinitis descendens in, 36; codeine in, 316; with lesion of the pancreas, 587
Diarrhœa, chronic, treatment of, 489; dysenteric, 27; flatulent, 26; infantile, treatment of, 87; therapeutics of, in children, 25.
Diet, Chinese idea of, 478.
Dilator of speculum, urethral, 263.
Dipsomania and drunkenness, 215.
Diphtheria, 269; benzoate of soda in, 572; in Brooklyn, 504; chloral hydrate in, 48; epidemics, 527; etiology of, 219; in lower animals, 456; and milk, 564; membranous croup, 594; prize essay on, 215; Russian remedy for, 518; treatment of, 251, 276, 479; tracheotomy in, 612.
Disease, causes of, 107.
Diseases of the skin, free course of lectures on, 360.
Disinfection and the National Board of Health, 239.
Dispensatory, the National, notice of, 398.
Dispensary attendance, decrease in, 552.
Dispensaries, provident, 140.
Diverticulum, 114.
Divulsion, slow, in treatment of strictures of the urethra, 103.
Doctors' bills, collecting of, 312.
Doctor's fee and the way of the world, 600.
Doctors in Memphis, 388.
Doctor not in consultation, 528.
Dorran, Dr. W. M., fracture of femur, 283.
Dosage of electricity, 43.
Douglas, Dr. Geo. C., exophthalmic goitre, 285.
Douglas' pouch, hæmatoma of, 514.
Dowse, Dr. Thomas Stretch, notice of book by, 208.
Dropsy, tapping in, 34.
Druggists, percentage from, 566; women as, 514.
Drunkards, care of habitual, 302.
Drunkenness and dipsomania, 215.
Duboisin, poisoning by, 346.
Durant, Dr. Ghislani, notice of book by, 568.
Duty on cinchona alkaloids, 57.
Dyer, Dr. John I., a case of double ovariotomy, 200.
Dykeman, Dr. H. E., 31.
Dysentery, chronic, treatment of, 297.
Dyspnœa, cardiac, 394.
Dyspepsia, action of digestive ferments in, 371.

E.

Ear, aneurism of auricle of, 300.
Ear and throat instrument case, 407.
Eclampsia, pilocarpine in, 455.
Eczema of palm, 251.
Editorial changes, 480.
Edwards, Dr. Emma Ward, the raw-hide jacket for spinal disease, 406.
Elbow-joint, exsection of, 571; sub-periosteal excision of, 100.
Eldridge, Dr. Stuart, the Esmarch bandage in strapping the testicle, 331.
Electricity, medical, automatic, 540; dosage of, 43; in extra-uterine pregnancy, 382; a paralyzing agent, 416, 476, 549.
Electrology and Neurology, Journal of, 336.
Electro-magnetic machine, 22.
Electro-therapeutics and the American Neurological Association, 118, 166, 237.
Elmer, Drs. Wm. and A. D., notice of book by, 592.
Ely, Dr. Wm. S., lithotrity with evacuation of fragments, 475.
Embolism after injuries of bones, 515; fatty, 442; of lungs, following fractures, 60.
Empyema, 539; acute, 489, 611.
Emulsion, phosphoric, in phthisis, 24.
Endocarditis, 521.
Endometrium, fungous vegetations of, 512.
England, proposed new medical school in, 240.
English medical students, 12, 183.
English naval medical service, 455.
Entropion and trichiasis, 420.
Epidemics, prison, 576.
Epilepsy, note on a case of, 214, 263.
Episcleritis, eserine and pilocarpine in, 252.
Episcopal Hospital, Philadelphia, 468.
Epithelioma of vulva, 440.
Epithelium, changes in renal in Bright's disease, 133.
Ergot, local use of, 563.
Erysipelas, 585; of the skin, 594.
Eserine in episcleritis, 252; in glaucoma, 288.
Ether, early discovery of anæsthetic properties of, 117.
Ethics of consultations, 421.
Excision *vs.* évidement, 582.
Excremental diseases, 442.
Exophthalmic goitre, 1, 355, 610.
Exophthalmus, 402.

Experiences of a successful practitioner, 212, 261, 356; reviewed, 405, 621.
Extirpation of the bones of the nose and mouth, 28.

F.

Faradism in suspended animation, 156.
Faradization and purpura hemorrhagica, 419.
Fat in urine in pyonephrosis, 300.
Fehr, Julius, concerning so-called patented medicines, 548.
Femur, eversion of limb after fracture of neck of, 305; fracture of, treated by immediate extension, 283; excision of head of, in intra-capsular fracture, 569.
Fergus, Dr., honors to, 552.
Fevers, heat in the treatment of, 414.
Fever, intermittent, and pilocarpine, 150.
Finley, Dr. Clement A., 264; obituary, 287.
Fistula, cutaneous biliary, 36; vesico-vaginal, 512.
Flexible vulcanite, 450.
Flint, Dr. Austin, notice of book by, 425; self-limitation in phthisis, 65.
Flower charity, New York, 527.
Fomite, cotton as, 523.
Forceps, artery and torsion, 451; obstetric, early application of, 380.
Fothergill, Dr. J. Milner, 140
Fournié, Dr. Edouard, notice of book by, 494.
Fowler, Dr. Ezekiel, new hospital by, 504.
Fox, Dr. George Henry, notice of work by, 208, 304.
Fox, Dr. William Tilbury, obituary, 23.
Fox, Drs. Tilbury and T. C., notice of book by, 65.
Fractures, fatty embolism of lungs following, 60.
Fracture of the leg, slow union, 389; punctured at base of skull, 56.
Friedrich, J. J., pathogenetic bacteria in salt-water marshes, 547.
Frontal sinus, inflammation, abscess, and fistula of, 32.
Fucusine as a therapeutic agent, 291.
Fucus vesiculosus, 622.
Fulton, Dr. J., notice of book by, 208.
Funis, treatment of, 513.

G.

Gaillard, Dr. E. S., 455.
Galvani, 622.
Galvanic current in exophthalmic goitre, 317.
Galvanism and opium habit, 129; in scleroderma, 181.
Galvano-cautery, use of, in removal of adenoid growths, 243.
Gargling, von Trölsch's method of, 616.
Garland, Dr. G. M., negative pressure, 609.
Geddings, Dr. W. H., report of cases of phthisis, 460.
Geissler's tubes, illumination of cavities by, 537.
Gelatine, pharmaceutical use of, 528.
Genu-valgum, operative treatment, 490.
German Hospital, Philadelphia, 467.
Gibbs, Dr. B. T., 503.
Gihon, Dr. O. L., 503.
Gilman, Dr. John H., diphtheria, 269.
Glaucoma, cases of, 370.
Glaucoma and eserine, 288.
Goddard, Dr. C. C., hydrophobia, 152.
Goitre, exophthalmic, 285; galvanic current in, 317; retro-pharyngeal extirpation of, 155.
Gold-platinum staining in microscopy, 48.
Gonorrhœa, treatment of, 120.
Goodell, Dr. William, fibroid tumors of the uterus, 265; notice of book by, 184.
Goodfellow, Dr. G. E., cause of sudden death in thoracentesis, 476.
Goodwillie, Dr. D. H., extirpation of the bones of the mouth and nose by the use of the surgical engine, 28.
Gouley, Dr. J. W. S., internal urethrotomy and lithotripsy, 363; retention of urine in elderly men, 169.
Gout, quinine in, 156.
Graham, Dr. Douglas, the history of massage, 147, 171.
Gray, Dr. L. C., electro-therapeutics, and the American Neurological Association, 237.
Green, Dr. T. Henry, notice of book by, 109.
Greene, Dr. William H., notice of translation by, 109.
Greenup, Mrs. W. T., notice of book by, 207.
Griswold, Dr. Gaspar, pilocarpine and intermittent fever, 150.
Gross, Dr. S. D., notice of monograph, 208.
Guaiacum in hæmaturia, 563.
Gurjun balsam, 557.
Gynecology, as related to insanity in women, 381; lessons in, 216.

H.

Habershon, Dr. S. O., notice of book by, 86, 399.
Hachenberg, Dr. Geo. P., lithotrity by surgical engine, 449.
Hæmacytometer in anæmia, 82.
Hæmatoma of Douglas's pouch, 514.
Hæmaturia, guaiacum in, 563.
Hahnemann Medical College of Chicago, 120.
Hairs, method of removing, 204.
Hall, Dr. F. De Havilland, notice of book by, 110.
Hamilton, Dr. J. W., comparative size of graduating classes in medicine, 70.
Hammond, Dr. Wm. A., 57, 288.
Hanks, Dr. H. T., suppurative peritonitis, 583.
Harlan, Dr. Geo. C., notice of book by, 494.
Harvard Medical School, women in, 123.
Harvey's remains, 384.
Havana, and the Commission appointed by the National Board of Health, 96.
Hay fever, 206, 448; new remedy for, 552.
Health boards, irregular practitioners on, 528.
Health and morality, influence of marriage on, 215.
Health and recreation, 254.
Heart, displacement of, by ascites, 81.
Heat and cold to the spine in uterine inertia, 47.
Heat in the treatment of fevers, 414.
Heath, Christopher, notice of book by, 399.
Heaton, Dr. George, obituary of, 94.
Hematoidin in urine, 300.
Hemiplegia, spasmodic infantile, 217.
Hemming, Dr. W. Douglas, notice of book by, 568.
Hemingway, Dr. S., the plaster-of-Paris corset, 487.
Hemorrhage, in canthoplasty, 487; dental, ligature of common carotid for, 181; novel method of controlling it in amputations of the hip, 215; post-partum, treatment of, 144; puerperal, 70; rectal, in infancy, 308, 454; hemorrhoids, external, 34; new operation in, 167.
Hernia, cure by a new instrument, 305; treatment by injection, 367.
Higgins, Charles, notice of book by, 399.
Hip-joint, fatal case of disease about, 484.
Hip-joint disease, mechanical treatment of, 543.
Hodgin, Dr. Jas. B., stone in the bladder, 449.
Hoffman, Dr. A. C., heat and cold to the spine in uterine inertia, 47.
Hoffman, Dr. A. C., prolonged retention of life in the new-born, 449.
Hoffman and Ultzman, notice of book by, 543.
Holmes, Gordon, notice of book by, 493.
Holmes, Dr. Oliver Wendell, 390
Homœopathy in Camden Co., N. J., 480.
Homœopathic Insane Asylum, 526.
Hood, Dr. Peter, notice of book by, 109.

Hospital Bible, Fruit, and Flower Mission, 37
Hospital, London Temperance, 165; new Marine, 143; pay patients, 444; of the University of Pennsylvania, 298, 466
Hospital Sunday, 518.
Hospitals and alcohol, 240; legal liabilities of, 469.
Howland, Dr. H. H., 419.
Hughes, Dr. C. H., semi-conscious epileptic automatism, 116.
Humerus, erect luxation of, 400; sarcoma of, 584; osteo-myelitis of, 212.
Hunt, Dr. C. H., poisoning by inoculation from an animal, 536.
Hutchinson, Dr. Wm. F., opium habit and galvanism, 139, 286.
Hydrocyanic acid iodide of potassium, 231.
Hydrophobia, 152, 216; successfully treated, 124.
Hygiene, International Congress of, 525; museum of, 108; and public health, notice of treatise on, 280, 303; report on, 471; school, 61.
Hypertrophy, chronic, of tonsils, 606.
Hypochondria, true and false, 553.
Hypoglossal, functions of nuclei of, 393.
Hypophosphites and phthisis, 348.
Hysteria, in boys, 587; metallotherapy in, 515; somnambulic and cataleptic condition in, 82.
Hysterotomy in treatment of fibrous tumors, 622.

I.

Ice, instrument for shaving, 286; new method of using, 306.
Ice-bag, Japanese paper, 190.
Idiocy, 577.
Ileum, indentation of, 211.
Illumination of cavities, 537.
Imbecility, 577.
Inebriety, alcoholic, 92; and sunstroke, 24.
Inertia, uterine, heat and cold to the spine in, 47.
Inflammation, chronic suppurative, of the middle ear, 73, 97; of the frontal sinus, 32.
Inhaled substances, experimental investigations on, 133.
Inoculation from an animal, 536; mephitic, 152.
Insane Asylum Consulting Board, 384.
Insane, care of, 480; commitment of persons to hospitals for, 479; hospital for, at Norristown, Pa., 360; tendon reflex in, 45.
Insanity, definition of, 433; and matrimony, 240.
Instruments of precision, 469.
International Congress of Medical Science, 396.
Intestines and peritoneum, notice of work on, 64.
Intestinal affections in children, 281.
Intestinal obstruction, symptoms and treatment, 442.
Intra-uterine medication, 329, 330, 375.
Irritation, cerebral, as a source of nerve-power, 558.
Iron, albuminate of, 36, 515.
Itching, relief of, 104.

J.

Jaborandi and Bright's disease, 451; in cholera, 251; in puerperal albuminuria and convulsions, 33, 307.
Jacobi, Dr. A., exophthalmic goitre occurring in a child and followed by St. Vitus' dance, 1; on treatment of infantile diarrhœa, 87; typhoid fever in infancy and childhood, 385, 409.
Jacobi, Dr. Mary-Putnam, note on cause of sudden death during operation of thoracentesis, 139, 331.
Jeançon, Dr. J. A., notice of atlas by, 567.
Jefferson Medical College Hospital, 34.
Jefferson Medical College, 504.
Joints, aloes in the treatment of wounds of, 300.
Joint diseases, etiology of, 305.
Jones, Dr. Samuel, notice of book by, 471.
Journalism, conservative, 374.
Journalistic changes, 599.

K.

Kane, Dr. John J., syphilitic periostitis of the cranium, 214.
Kava-Kava, 106.
Keller, Dr. J. M., alcoholic inebriety, 92.
Kennard, Dr. Thomas, 576.
Keratitis, 241; phlyctenular treatment of, by the galvano-cautery, 358.
Keyt, Dr. A. T., the sphygmographic indications in aneurism, 507.
Kidd, Dr. James, notice of book by, 471.
Kimball, Dr. Gilman, 303.
Kirkbride, Dr. T. S., 504.
Klein, F. Smith, notice of atlas by, 110.
Knee-joint, chronic inflammation of, 521; removal of loose cartilages from, 277.
Kolpo-cystotomy, 379.
Kolpokleisis and vesico-vaginal fistula, 619.
Kolpoecpetasis *versus* kolpokleisis, 383.
Kumyss, imitation, 157.

L.

Labor, mismanaged, the source of gynecological practice, 382; painless, 504, 600.
Landolt, Dr. E., notice of book by, 281.
L'Année médicale, notice of, 352.
Laparotomy, three operations in three years, 11.
Lardaceous degeneration, 422.
La Rue, Dr. J. Alexander, puerperal hemorrhage, 70.
Laryngoscope, 181.
Larynx of leper, 112; of œsophagus, 284; and pharynx, 395.
Lateral curvature of the spine, the mechanics of, 94.
Lathrop, Dr. G. H., retained placenta, 309.
Lefferts, Dr. Geo. M., commoner affections of the tonsils, 601.
Lemoyne, Dr. T. Julius, cremation of, 408.
Lente, Dr. F. D., climatology, 450.
Leo, Dr. Simeon N., new operation in prolapsus recti and external hemorrhoids, 167.
Leonard, Dr. C. Henri, notice of day-book by, 567.
Leper in middle ages, 384.
Leprosy, 72.
Leukæmia and priapism, 227.
Liautard, Dr. A., notice of book by, 352.
Library of the Faculty of Medicine in Paris, 384.
Lindsley, Dr. Van S., a case of osseous tumor in orbital cavity successfully removed, with preservation of sight, 124.
Life, lowest forms of, 452.
Ligament, structure of the broad, 393.
Lime salts, therapeutic administration of, 155.
Lime-water and blood clots, 456.
Lipomata, multiple congenital, 521.
Listerism *versus* the open method, 347; in Germany, 622.
Lithelapaxy, 150, 306.
Lithotripsy, rapid, 365, 402; and internal urethrotomy, 363.
Lithotrity with evacuation, 158, 182, 475; in the female, 593; by surgical engine, 449.
Little, Dr. James L., combined table and lounge, 70.
Liver, carcinoma of, 8; cirrhosis of, complicated, 59; perforation of, in an obstetric case, 439.
Locomotor ataxia, bisulphide of carbon in, 539.
London Lancet and the controversy on spasmodic stricture, 574.

Long Island College Hospital, 24.
Louisville, the way it was done in, 504.
Long, Dr. Crawford W., honor to, 168, 230, 236.
Lumbo-colotomy, 560; for non-malignant disease, 538, 621.
Lunacy reform, 552; meeting, 614.
Lung, cancer of, 495; gangrenous, 520.
Lupus, of face, 496; and salicylic acid, 227.
Lyman, Dr. Henry M., State medicine, 435, 572; State protection for syphilophobists, 222.
Lymphadenoma of testicle, 371; spontaneous disappearance of, 587.
Lymphatics of muscles, 106.

M.

Macalister, Dr. Alexander, 574.
Macdonald, Dr. A. E., lecture on mania, 433; on melancholia, 481; on dementia, idiocy, and imbecility, 577.
Malaria and carbolic acid, 419.
Malarial germ, a new, 373
Malpractice, suits of, 591, 599.
Manhattan Eye and Ear Hospital, 504.
Mania, clinical lecture on, 433; acute, 434; recurrent chronic, without delirium, 435.
Manley, Dr. T. H., rectal hemorrhage in infancy, 308.
Marine hospital service, board of examiners of United States, 72; United States, 613.
Marrow, bony, a hæmatopoëtic organ, 11.
Martin, Dr. Henry D., does successful vaccination prove that small-pox has not been recently experienced? 93.
Mason, Dr. Erskine, dislocation of the patella, 389.
Massachusetts Health Board, 575; Medical Society, 528.
Massage, history of, 147, 171.
Mather, Dr. E. E., jaborandi in puerperal convulsions, 307.
Matrimony and insanity, 240.
Mattison, Dr. J. B., opium habituation, 332.
Maunsell, Dr., 516.
Maynard, Dr. Wm. J., psoriasis, 553.
McClintock, Dr. Alfred H., 599.
McFalls, Dr. D., 405.
McWithey, Dr. Edward L., obituary, 432.
Measles in New York, 583.
Medical college, a new, 456, 493; of Ohio, 480; United States, number of graduates from, in 1878, 72.
Medical corps of U.S.A., qualifications for entering, 71.
Medical department of Yale College, 192, 432.
Medical ethics, 502, 526.
Medical Herald, 480.
Medical history of the war, 589.
Medical inspection for sick children, 134.
Medical office in India, 576.
Medical receptions, 591.
Medical Record, new type for, 470.
Medical researches, 527.
Medical schools in Philadelphia, opening of winter sessions of, 359.
Medical Society of the county of New York, 19, 87, 163, 471, 545; officers of, 432.
Medical Society, the Inter-state, 504; the Tri-state, 480.
Medical students, 575; lady, 526; preliminary education for, 312.
Medical teaching, 301.
Medical Union, 571.
Medicine, comparative size of graduating classes in, 70.
Medicine, frozen, 480.
Medicine in Louisville, 455.
Medicine, preparatory schools of, 348.
Medicines, proprietary, 573; so-called patented, 548.
Medico-legal case of interest, 20
Meigs, James Aitken, M.D., obituary, 502.
Melaleuca paraguayensis, 152.
Melancholia, 433, 481.
Memphis, appeal for aid for, 254; sanitary inspection of, 580.
Meningo-myelitis, 289.
Menopause unusually delayed, 531.
Menorrhagia and café noir, 300.
Menthol as an anti-neuralgic, 576.
Mercer, Dr. A. Clifford, report by, 49.
Merritt, Dr. John, cresylic acid in whooping-cough, 549.
Metalloscopy, 447.
Metallotherapy in hysteria, 515.
Metallotherapy, 43, 622.
Metric system and its practical application, 21; in England, 371.
Metropolitan Throat Hospital, 419.
Metrorrhagia, treatment of, 360.
Meyer, Bertha notice of book by, 65.
Meyer, Dr. Joseph, report of case of pharyngeal stricture, 179.
Middle ear, chronic suppurative inflammation of, 73, 97.
Midwifery, record of two thousand cases, 491.
Milk and diphtheria, 564.
Mills, Dr. Chas. K., meningo-myelitis from traumatism, 289; paralysis and hemiplegia, spasmodic infantile, 217; transverse lesion of spinal cord, 361.
Mitchell, Dr. S. W. B., obituary of, 238.
Moles, flesh and villous, 260.
Molluscum Verrucosum, 258.
Moore, Dr. William Oliver, ophthalmia neonatorum, 272.
Morality and health, influence of marriage on, 215.
Morbus coxarius, apparatus for, 197.
Morbus Winckelii, 325.
Morjé, Dr. Benjamin, on the use of oxalate of cerium in pertussis, 58.
Morphine, bromhydrate of, 324; hypodermic injection of, 288.
Morris, Dr. Henry, notice of book by, 63.
Mortality, rate of, in the city of New York, 134.
Morton, Dr. Wm. J., the "discoverer" of anæsthesia, 431; traumatic dislocation of cervical vertebra, 320.
Mt. Sinai Hospital, 521, 527.
Mucous membrane, uterine, fungoid degeneration of, 315.
Mudd, Dr. J. A., determination of sex in utero, 448.
Murchison, Charles, M.D., LL.D., F.R.S., lecture by, 49; memorial to the late Dr., 83.
Murray Dr., wife of Rev. W. H. H., 504.
Muscle-beating in infantile paralysis, 216.
Muscles, chronic affections of and trichinosis, 319; lymphatics of, 106.
Myelitis, acute central, 525; subacute, 525.
Myositis ossificans, progressiva, 276.
Myxædema, 276, 516.

N.

Nævi, tattooing of, 257.
Nasal septum, necrosis of, 585.
National Academy of Sciences, 528.
National Board of Health, 85, 384, 425; and disinfection, 239; and homœopathy, 142, 358; volunteer surgeons under authority of, 108.
National Medical Library, 522.
Naturalists and physicians, German, 455.
Naylor, Dr. William Hamilton, a case of chronic dysentery, 297.
Neck, cellulitis of, 539.
Neftel, Dr. Wm B., electricity a paralyzing agent, 476.
"Negative pressure," 308, 609.
Nerve, paralysis of the recurrent laryngeal, 35; sup. max., neurotomy of, 468; ulnar, sutural function of, 60.
Nerve-power, cerebral irritation as a source of, 558.
Nervous centres, syphilitic affections of, 156.

Nervous diseases and male genital functions, 292, 533.
Neuralgia, pelvic, 529; trigeminal, 498.
Neurasthenia and womb disease, 81.
Neuro-retinitis, bilateral, descendens, 36.
Neurotomy of sup. max. nerve, 468.
New-born, prolonged retention of life in, 449.
New Hampshire Medical Society, 13, 264, 384.
New remedies, 216.
New York Academy of Medicine, 65, 119, 312, 350, 353, 426, 499, 520, 543, 568, 615, 617.
New York Hospital, 390.
New York Medical Journal, 599.
New York Neurological Society, 446, 524.
New York Pathological Society, 91, 111, 160, 187, 209, 260, 303, 400, 453, 494, 519, 570, 593; notice of transactions, 592.
New York Therapeutical Society, 453.
Nipples, sore, 513.
Nitrate of silver in treatment of sciatica, 394.
Nurses, directory for, 575; order for, 94; trained, 576.

O.

Obstetric case, an interesting one, 439.
Obstetrical practice among the Japanese, 575; in Siam, 110.
Obstetrical Society of London, 233.
Ocinum basilicum, 325.
Œsophagus and larynx, 284.
Ophthalmia, gonorrhœal, and opacity of cornea, 155.
Ophthalmia neonatorum, 272, 391.
Ophthalmic and aural institute, notice of report, 65.
Ophthalmoscope in cerebral disease, 215.
Opium and cinchona alkaloid, 38.
Opium asylum, Foochow, 264.
Opium habituation, 332.
Opium habit and galvanism, 129.
Opium-poisoning, atropine in, 120.
Orthopædic surgery, contributions to, 196.
Os calcis, removal of, 387.
Osteitis, tarsal, 582.
Osteotomy, subcutaneous, 516.
Otis, Dr. Fessenden N., class-room lessons on chancroid, 223, 273, 321.
Otitis media, 521.
Otitis purulent, 564.
O'Toole, Dr. M. C., control of tongue during laryngoscopic operations, 263.
Otorrhœa, chronic, permanganate of potassa in, 251.
Out-door poor relief, 384.
Ovaries, prolapse of, 377; prolapse of both, 512; primary cancer of, 485.
Ovaritis, chronic, 529.
Ovariotomy, 513; double, a case of, 200; and cold affusions, 348; remarks on, 51, 75, 99.
Ovary, adeno-cystic tumor of, 111.

P.

Pain, chronic, ointment for, 204.
Pallen, Dr. Montrose A., vagino-cerviplasty, 193.
Pancreatic duct, obliteration of, 402.
Pancreas, lesion of in diabetes, 585.
Papilloma of bladder, excision of, 82.
Paracentesis pericardii, 347.
Paralysis agitans, unilateral, 347; infantile muscle-beating in, 215; pseudo-hypertrophic spinal, 240; spasmodic infantile, 217.
Paraphimosis, treatment of, 585.
Paresis, general, 434
Parker, Dr. W. Thornton, a new vaginal and rectal syringe, 23.
Paronychia, 165.
Patella, dislocation of, 389.
Peckham, Dr. Walton H., 576.
Pelletierine, tannate of as a tæniafuge, 226.
Penis, singular affection of, 611.
Pennsylvania Hospital report, 104, 144, 391, 468, 575; staff of, 504.
Pennsylvania State Hospital, 288.
Pepsine, a new vegetable, 480.
Peptones, nutritive value of, 19.
Perimetritis, 514, 546.
Perineum, laceration of, 512.
Periostitis, syphilitic, of the cranium, 214.
Peritonitis, pelvic, 298; suppurative, following pelvic, 583.
Pertussis, oxalate of cerium in, 58.
Pest, the Oriental, 277.
Peuguet, Dr. Eugene, 452; obituary of, 383.
Phalanx, restoration of terminal, 165.
Pharmacopœial remedies, 475, 501.
Pharynx, adenoid growths in vault of, 243; and larynx, 395; stricture of, 179.
Philadelphia Academy of Natural Sciences, 498.
Philadelphia College of Physicians, 17.
Philadelphia Hospital, 130, 179.
Philadelphia Pathological Society, notice of transactions of, 353.
Philadelphia, sanitation in, 240.
Phillips, Dr. C. D. F., notice of book by, 351.
Phlebitis, suppurative, 473.
Phthisis, laryngeal, 454, 479; pulmonary, antimony in, 255; and chest development, 547; chest mensuration in, 105; crude petroleum in, 359; early symptoms of, 538; hypophosphites in, 348; increase of, in southern latitudes, 479; phosphoric emulsion in, 24; report of cases, 460; self limitation in, 65.
Physical examination of seamen, 48.
Physicians for sick children, 48.
Piffard, Dr. H. G., notice of book edited by, 351; medical ethics, 502.
Pilocarpin and baldness, 219: in children's diseases, 227; in eclampsia, 455; in episcleritis, 252; in intermittent fever, 150.
Pine Ridge Papers on "Successful Practitioner," 212, 261, 356, 621.
"Pithing," effects of, on the vascular system, 248, 404.
Placenta, fatty degeneration of, 162; retained, 309; waxy degeneration of, 91, 594.
Plague, the, 59, 198.
Plague in Russia, 576.
Plaster-of-Paris corset, 487.
Plaster-of-Paris, to remove from hands, 528.
Pleurisy, circumscribed, 489; and pneumonia, 474; differential diagnosis, 504.
Pleuro pneumonia, 503; contagious, 443, 552.
Pneumatic apparatus, new form of, 190.
Pneumonia, aconite in, 120; chronic, 521; and pleurisy, differential diagnosis of, 474.
Poisoning by bee-sting, 309; by inoculation, 536.
Polypi, speedy cure for nasal, 526.
Pomeroy, Dr. O. D., on chronic suppurative inflammation of the middle ear, 73, 97.
Pons and crus, gummy tumor of, 498.
Poole, Dr. Thomas W., cerebral "irritation" as a source of nerve-power, 559; effects of "pithing" on the vascular system, 248, 404; electricity as a paralyzing agent, 416, 549.
Poore, Dr. Charles T., a fatal case of disease about the hip-joint, 484; removal of the os calcis, 387.
Porro's operation, 441.
Porter, Dr. Wm., asthma from reflex causes, 345.
Post, Dr. A. C., ulceration and contraction of the rectum from dysentery, 560.
Post, Dr. George E., slow union of fracture of the leg, 389; knighted, 599.
Pott's disease, apparatus for, 196; mechanical treatment of, 327, 349; removable paper brace for treatment of, 163; syphilitic, 157.
Potassa, permanganate of in chronic otorrhœa, 251.

Potassium, bromide of, external application, 326; poisoning by chlorate of, 454; iodide and bulbous eruption, 231.
Practitioner, experiences of a successful, 212, 261, 356; reviewed, 405, 621.
Pregnancy, cicatrices of, 377; ephilides of, treatment by chrysophanic acid, 372; extrauterine, treated by electricity, 382; Fallopian, 162; persistency of cervix uteri in, 277; pop-corn in the nausea of, 528; vomiting of, 288, 419; with anteflexion, 532.
Prescott, Dr. Albert B., notice of book by, 567.
Prescriptions, act regarding duplicating, 588; improper use of physician's, 207.
Preston Retreat Hospital, 512.
Preventive medicine, 253.
Priapism and leukæmia, 227.
Proceedings of the Connecticut Medical Society, 256.
Professor, selection of a, 566.
Prolapsus recti, new operation in, 167.
Pronoun "we," use of, 549.
Prophylaxis, venereal, 324.
Prostatorrhœa, with stricture, 35.
Prostitution, regulation of, 205.
Protocoine in cholera, 251.
Pruritis vulvæ, 527.
Psoriasis, 553.
Public Health Association of Boston, 240.
Public Health Association, plan for a National, 478.
Puerperal convulsions and jaborandi, 33, 307.
Puerperal fever, 513.
Purpura hemorrhagica and faradization, 419.
Pus in the urine, causes of, 49.
"Put it on at once," 48.
Putzel, Dr. L., cerebral complications of chorea, 220; notice of translation by, 304.
Pyæmia, combating by operative method, 442.
Pyonephrosis with fat in urine, 300.
Pyo-thorax, acute, 489, 611.

Q.

Quackery in New York, 312; concerning the law against, 492.
Quack and regulars, 70.
Quarantine, international, 398; newly-appointed in the Delaware river, 360; New Orleans, 574; station on Delaware river, 311.
Quinine, foreign, 454; in gout, 156; solution of, in stomach, 312.
Quinsy sore throat, 601.

R.

Rabies, 454.
Ranney, Dr. A. L., causes of death in surgical operations, 4.
Raw-hide jacket for spinal disease, 406.
Recreation and health, 254.
Rectum, carcinoma of, 593; congenital absence of, 561; excision of, 267; fissure of, 514; ulcer of, 240; ulceration of, following dysentery, 560.
Resuscitation of drowned persons, 347.
Reyburn, Dr. Robert, state medicine, 500.
Rheostat, 15.
Rheumatism, acute articular, 611.
Rhoads, Dr. M. A., supra-condyloid amputation of thigh, 511.
Rhode Island Medical Society, 264.
Rhus radicans, poisoning by, 46, 117, 284.
Rice, Charles, notice of book by, 40.
Richardson, Dr. B. W., notice of manual by, 352.
Richardson, Dr. J. G., notice of book by, 255.
Robinson, Dr. Beverley, note the cause of sudden death in thoracentesis, 188.
Robinson, John, M D., obituary of, 503.
Rockwell, Dr. A. D., on the value of the galvanic current in exophthalmic goitre, 317; reply to Dr. J. D. S. Smith, 166.
Roe, Dr. J. O., adenoid growth in the vault of pharynx, 243.
Roosa, Dr. D. B. St. John, keratitis; its relation to the general condition of the patient, 241; lachrymal catarrh, 121.
Rosacea, method of obstructing the veins in, 259.
Royal Sanitary Commission, 528.
Rush Medical College, 452, 575.

S.

Salicylic acid and tape-worm, 325.
Salpingitis complicated by ulceration of the cervix, 199.
Sanitation at Memphis, 566, 580; municipal, 523; in Philadelphia, 240.
Sanitary convention and exhibition, 575; efforts, results of in New York City, 493; Institute of Great Britain, 528; interference, Chicago, 590.
Sarcoma of the chest, 395; of the humerus, 585; of the superior maxilla, 593.
Satterthwaite, Dr. T. E., a new apparatus for fractured clavicle, 310.
Sayre, Dr. Lewis A., 575.
Scarlet fever in Illinois, 526.
School training for children, 453.
Schweig, Dr. Geo. M., the treatment of urethral stricture, 103.
Sciatica and nitrate of silver, 294.
Scleroderma, 181, 316.
Scofield, Dr. D., wound of larynx and œsophagus, 284.
Scrofula, anatomical changes on glands in, 588.
Scrofulosis, milk with lime-water in, 175.
Sea-sickness, 448.
Sea-side sanitarium, 384.
Seguin, Dr. E. C., note on epilepsy, 263; on asylum management, 618.
Seiler, Dr. Carl, notice of book by, 63.
Semple, Dr. C. E. Armand, notice of book by, 568.
Septicæmia, puerperal, 376.
Sex, determination of, in utero, 358, 448, 548.
Sexton, Dr. Samuel, early discovery of the anæsthetic properties of ether, 117; prize essay, motto of, 504.
Shaffer, Dr. Newton M., notice of book by, 39.
Shrady, Dr. Geo. F., editorial articles by, 38, 61, 84, 107, 350, 421, 444, 470, 492, 493, 541, 565, 566, 591, 614, 619; Pine Ridge Papers, experiences of a successful practitioner, 212, 261, 356, 621.
Sickness-rate in Wisconsin, 454.
Simmons, Dr. D. B., a case of nearly fatal hemorrhage after canthoplasty, 487; cholera in Japan, 190, 262; Japanese paper ice-bag, 190; jaborandi in cholera, 251.
Singultus, rapid cure of, 277.
Skin and its troubles, 567; chrysophanic acid in diseases of, 69; microscopical examination of, in erysipelas, 594.
Skull, punctate fracture of, 494; punctured fracture at base of, 56.
Smith, Dr. A. A., therapeutics of diarrhœa in children, 25.
Smith, Dr. J. D. S., electro-therapeutics and the American Neurological Association, 118.
Smith, Dr. J. Lawrence, 599.
Smith, Dr. Stephen, notice of book by, 423.
Smythe, Dr. A. G., rhus-poisoning, 284.
Social Science Association, 312.
Soda, benzoate of, and diphtheria, 572; therapeutic uses, 372, 622.
Sore-throat, quinsy, 601; ulcerated, 602; communicable, 603.

South-East Missouri Medical Society, 575.
Species, crossing of, 452.
Speculum and dilator, urethral, 263.
Spermatorrhœa, nervous symptoms connected with, 533.
Spermatozoids, anomalies of, 240.
Sphincter palpebrarum, forcible dilatation in blepharospasm, 296.
Sphincter vesicæ, forced dilatation of, 17.
Spina bifida, 120.
Spinal cord, transverse lesion of, in the dorsal region, 361; and syphilis of the brain, 4.
Spleen, congenital absence of, 11.
Squill, active principles of, 325.
Stanton, Dr. M., translation, 69.
Starr, Dr. Louis, case of carcinoma of liver, with remarks, 8.
State Lunatic Asylum, notice of, report of, 351.
State medicine, 328, 435, 500, 572.
State Society's Transactions, 397.
Stein, Dr. A. W., urethral dilator and speculum, 263.
Stethoscope, Edison's, 283.
Stewart, Dr. Morse, notice of dose-book by, 351.
Still-birth, evidence of, 468.
Stillman, Dr. Chas. F., contributions to orthopædic surgery, 196.
Stillman and Delafield, notice of book by, 110.
Stomach, dilatation of, 34.
Stone in the urinary bladder, 449; analysis of one hundred consecutive cases, 306; detection of fragments of, 120.
Stone, Dr. Solon B., quacks and regulars, 70.
Strangury, method of prevention of, 393.
Stricture, spasmodic urethral, controversy on, 574; treatment of urethral, 103.
St. Bartholomew's Hospital, 526.
St. John's Guild, 575.
St. Luke's Hospital, 216.
St. Vitus's dance following exophthalmic goitre, 1.
Successful practitioner, experiences of a, 212, 261, 356, 621.
Successful practitioner reviewed, 405.
Successful vaccination, 22.
Sunstroke and inebriety, 24.
Sunstroke, sequelæ of, 540.
Superfœtation and double uterus, 351.
Surgeon-General of the Army, annual report of, 470.
Surgery and its relation to gynecology, 378.
Surgical engine, extirpation of the bones of the nose and mouth by the use of, 28.
Surgical operations, causes of death in, 4.
Sweet, Dr. A. L., an interesting obstetric case, 439.
Sympathetic system, new function of, 399.
Syphilides, palmar, local treatment of, 372.
Syphilis, nature of, 259; note on congenital, 514; of brain and spinal cord, 4; of nervous centres, 156; sudden deafness from, 279.
Syphilophobists, State protection for, 222.
Syringe, a new vaginal and rectal, 23.

T.

Table and lounge combined, 70.
Tanner, Dr. J. A., note on a case of epilepsy, 214.
Tanner, Dr. Thomas Hawkes, notice of memoranda by, 351.
Tape-worm, 211; and salicylic acid, 325.
Tea, rotten, 576; toxic effects of, 43.
Teeth, effect upon, by smoking, 192; replanting of, 288.
Tendon-reflex in the insane, 45.
Tenement-house act, 62.
Tenement-house improvements, 542.
Temperature, hyperpyrexial, 394.
Tents, compound gelatine medicated, 335.
Testimony, medical expert, 156, 518; expert, in Hayden trial, 517.
Testicle, Esmarch bandage in strapping, 331; lymphadenoma of, 371; tumor of, 520.
Tetanus, anatomy of, 105.
Texas, climate of, 574.
Therapeutics of diarrhœa in children, 25; present state of, 337.
Therapeutical Congress, 527.
Thermometry, cerebral, 490; of the viscera, 420.
Thigh, supra-condyloid amputation of, 511.
Thomas, Dr. T. Gaillard, clinical lecture, 313, 529.
Thompson, Dr., 144.
Thoracentesis, note on the cause of sudden death during operation of, 139, 188, 189, 331, 402, 476, 501.
Thoracic sounds, transmission of, 393.
Thrombosis of portal vein, 59.
Thuja occidentalis, 216.
Tinea favosa, 34.
Titles, deceased unentitled to, 136.
Tobacco and alcohol, association to prevent abuse of, 455.
Tonsils, unilateral inflammation of, 521; commoner affections of, 601, 615.
Tongue, control of, during laryngoscopic operations, 263.
Torticollis, anæsthesia and hot water in, 295.
Tracheotomy, bloodless method of performing, 588; for sandburr in the trachea, 455; without a tube, 496.
Training school for nurses, 83.
Transactions of the Medical Society of the State of New York, 256.
Transactions of the Medical Society of the State of Tennessee, 255.
Transactions of the Michigan State Medical Society, 255.
Trichinosis, chronic affections of the muscles in, 319.
Trichinous pork, 135.
Tubercles of the vagina and cervix, 180.
Tuberculosis generalized, 570.
Tumor of the brain, 36; intra-cranial, 521; osseous in orbital cavity, 124.
Tumors, histology of, 498.
Typhoid fever, 105, 505, 521, 574; cataract following it, 105; and diseased meat, 203; in infancy and childhood, 385, 409; treatment in Philadelphia hospitals, 466.

U.

Ulcer of rectum, 240.
University of Maryland, 479.
University Medical College, New York, 336.
University of Vermont, Medical Department, 384.
Urethra, caruncle of, 513; organic stricture of the prostatic, 241.
Urethrotomy, internal, and lithotripsy, 363.
Urinary infiltration and abscess, 457.
Urine, acute retention of, in elderly men, 169; blue, 59; causes of pus in, 49; fat and hematoidin in, 300; incomplete retention of, 105; influence on, by sugar injected into the veins, 394; new test for biliary coloring matter in, 276.
Urticaria and atropine, 227.
Uterus, double and superfœtation, 351; fibroid tumors of, 265; infantile, 211; spontaneous cure of inversion of, 453.

V.

Vaccination and recently experienced small-pox (?), 93.
Vagina, congenital absence of, with pregnancy, 379; pustular inflammation of, 204; tubercles of, 180.
Vaginismus, 514.
Vaginitis, 512.
Vagino-cerviplasty, 193.
Vallet, Dr., 575.
Van Derveer, Dr. A., excision of rectum, 267.

Van Buren, Prof. Wm. H., M.D., LL.D., 38.
Van Santvoord, Dr. R., on destruction of the cerebro-spinal centres, 333; note on the cause of sudden death in thoracentesis, 189, 402, 501; "negative pressure," 308.
Veins, air in, 4; of the legs, idiopathic inflammation of, 81; portal, thrombosis of, in cirrhosis of liver, 59.
Venereal disease, protection from, 523.
Venesection, 539.
Ventilation, school, 133; of churches, 493; and spread of contagious diseases, 614.
Vermont Pharmaceutical Association, 384.
Version, anterior and posterior, 199.
Vertebra, cervical, traumatic dislocation of, 320.
Veterinary Inspection, National Bureau of, 455.
Viburnum prunifolium, 216.
Viola-tricolor, 256.
Virginia State Medical Society, 575.
Virchow, Prof., 454; as a magician, 454.
Vision, trial case for testing, 551.
Vitiligo, incomplete, 231.
Vivisection, anti-, 288.
Vivisection, 441.
Volunteers for yellow fever service, 143.
Vomiting of pregnancy, 288, 419.
Vulva, epithelioma of, 440.

W.

Waite, Dr. T. C., determination of sex in utero, 358.
Wales, P. S., Surgeon-General U. S. N., 528.
Walker, Dr. Edwin, exophthalmic goitre, 355.
Walsh, Dr. Ralph, notice of ledger by, 567.
Ward, Dr. J. M., poisoning by rhus radicans, 117.
Wark, Dr. David, notice of book by, 567.
Warner, Dr. Everett S., jaborandi in the treatment of puerperal albuminuria and convulsions, 33.
Warren, Dr. Joseph H., the treatment of hernia by injection, 367.
Water, impure, and disease, 445.
Water, putrefactive changes in, produced by rotten wood, 523.
Watson, Dr. B. A., antiseptic treatment of wounds, 46.
Watson, W. Spencer, notice of book by, 398.
Weather statistics, 408.
Webster, Dr. David, glaucoma, 370.
Weights and measures, examination and verification of, 185.
Weir, Dr. Robert F., urinary infiltration of abscess, 457.
Wells, Mr. T. Spencer, marble bust of, 353.
Wendt, Dr. E. C., chronic affections of the muscles following trichinosis, 319.
West Chicago Medical Society, 136, 281.
Wheeler, Dr. C. S., artery and torsion forceps, 451.
Which electric pole shall be employed? 41.
Whistler, Dr. W. MacNeill, notice of book by, 446.
White, Dr. F. V., paronychia, 165.
White, Dr. Oliver, obituary of, 477; bequests of, 575; resolutions, 600.
White swelling treated by sulphate of zinc, 371.
Whittaker, Dr. Jas. T., the history of auscultation, 411.
Whooping-cough, cresylic acid in, 549.
Wickes, Dr. Stephen, notice of book by, 567.
Wilks, Dr., 527.
Williams, Dr. Cornelius, case of punctured fracture at base of skull, 56.
Williams, Dr. S. W., translation, 124; obituary of, 335.
Wilson, Dr. Erasmus, 575.
Wilson, Dr. Jas. C., notice of health primer by, 352.
Woman's Hospital of the State of New York, 201.
Women, medical, 454; as druggists, 514.
Worms in the nasal cavity, 326.
Wood, Dr. Thomas F., successful vaccination, 22.
Wood oil, 557.

Y.

Yale College, changes in medical faculty, 468.
Yandell, Dr. L. P., 384.
Yellow fever, 62, 119, 143, 168, 192, 215, 239, 264, 287, 311, 336, 359, 384, 408, 432, 452, 478, 523, 524; Commission, Cuban, 504; pathology of, 401, 519; pathological lesions in the nervous system in, 44; the prevention of, 84; sanitary condition of districts, 24; treatment of, 166, 262.

Z.

Zinc sulphate in white swelling, 371.

R Medical record
11
M433
v. 15-16

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY